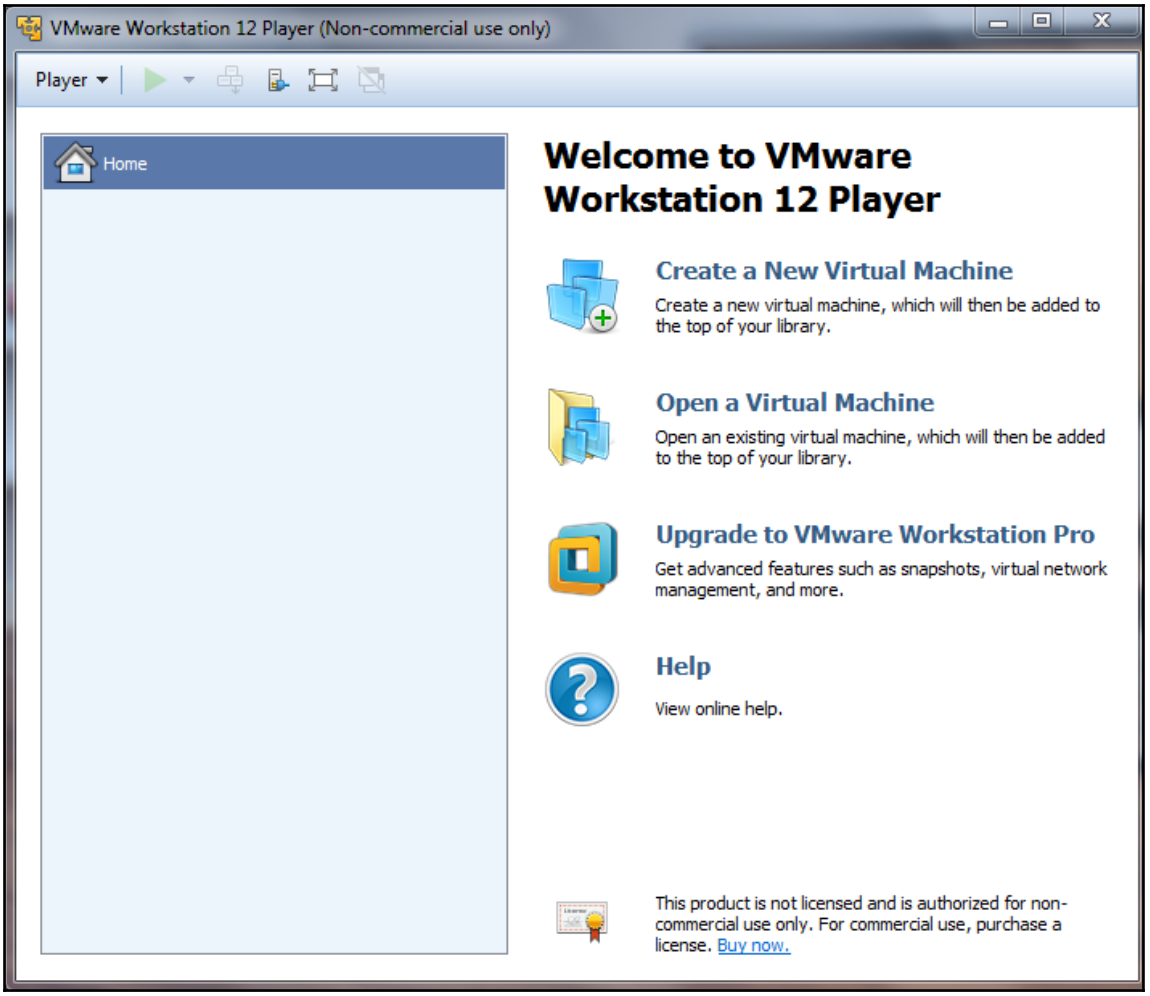
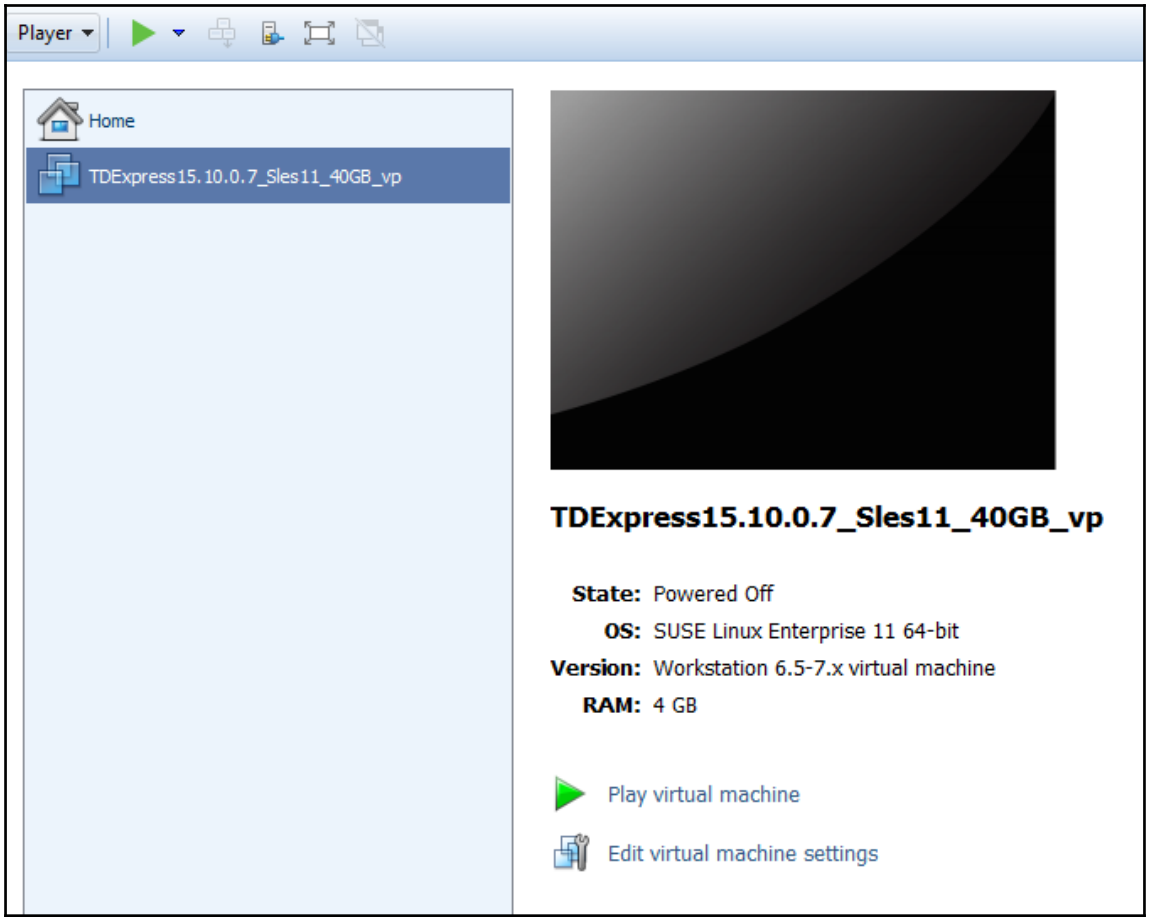
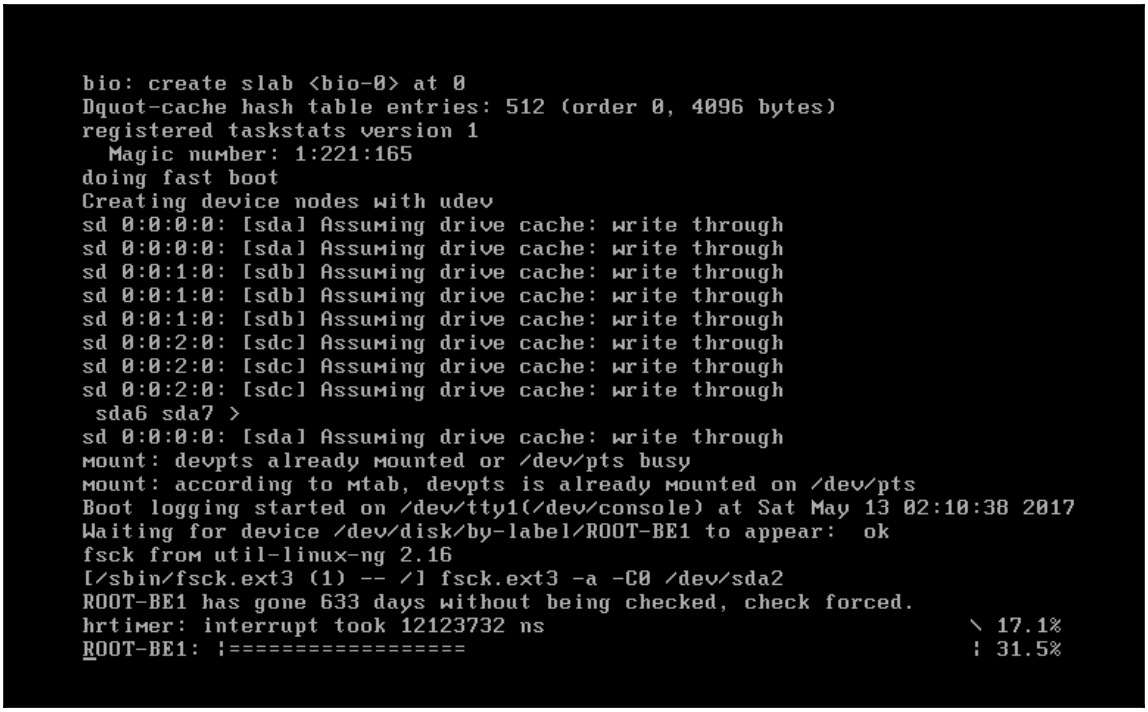
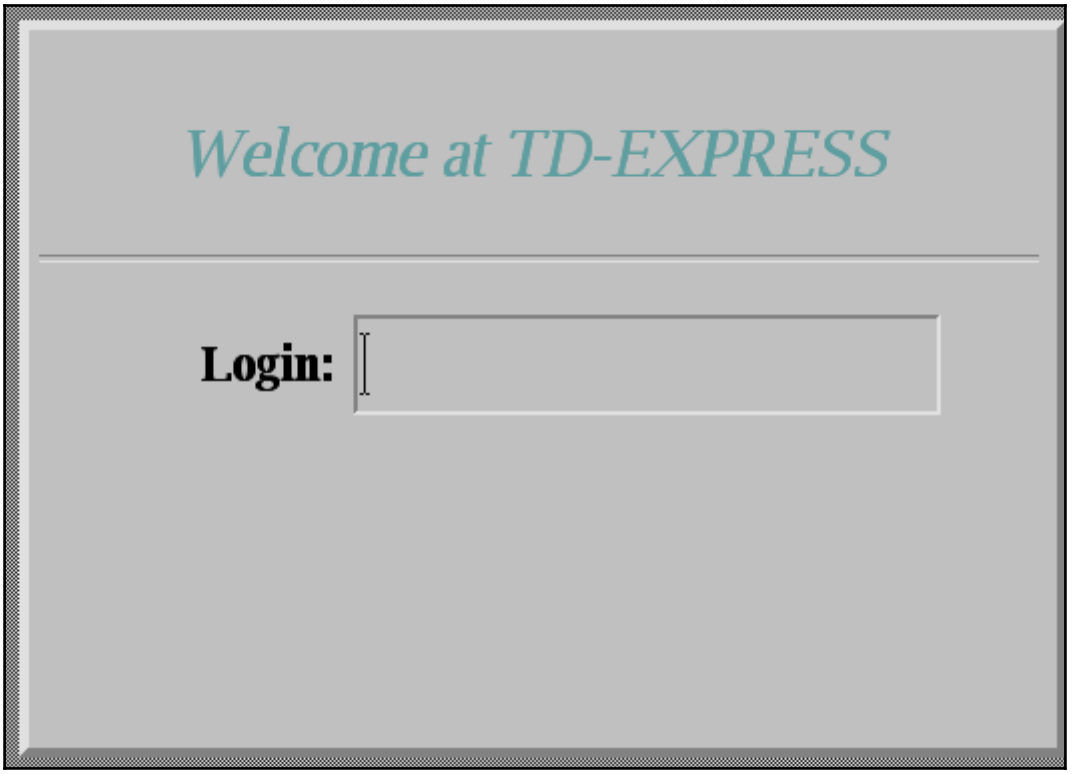
1
Grahpics

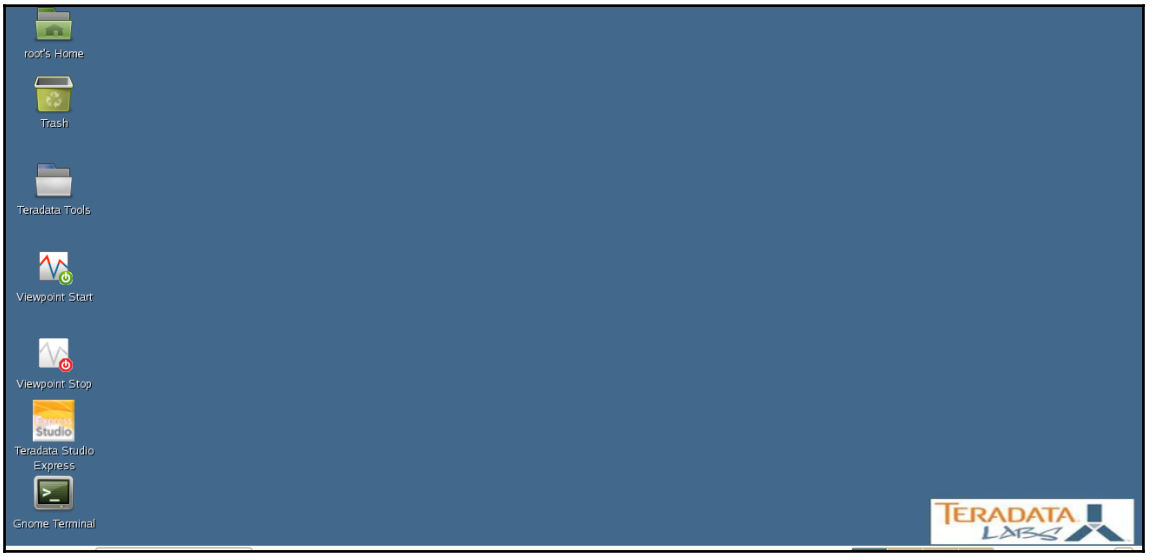
Chapter 1: Installation

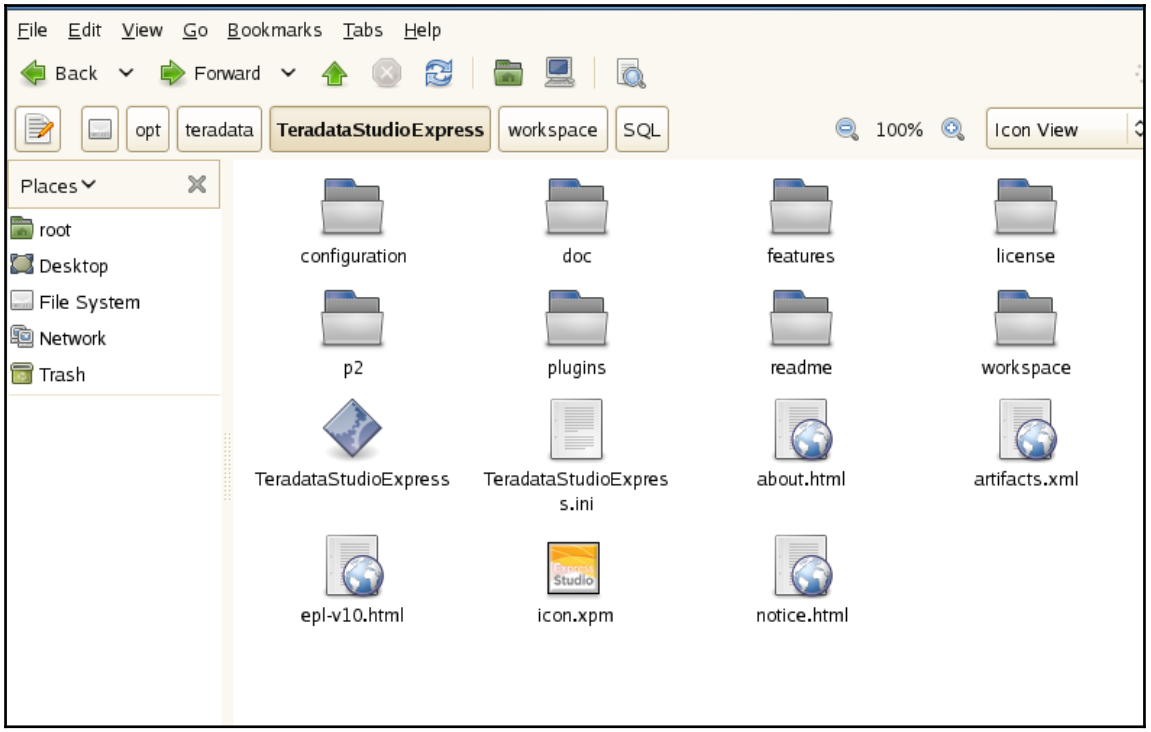

VMware Workstation 12 Player (Non-commercial use only)
Player
Home
Welcome to VMware Workstation 12 Player
Create a New Virtual Machine
Create a new virtual machine, which will then be added to the top of your library.
Open a Virtual Machine
Open an existing virtual machine, which will then be added to the top of your library.
Upgrade to VMware Workstation Pro
Get advanced features such as snapshots, virtual network management, and more.
Help
View online help.
This product is not licensed and is authorized for non-commercial use only. For commercial use, purchase a license. Buy now.

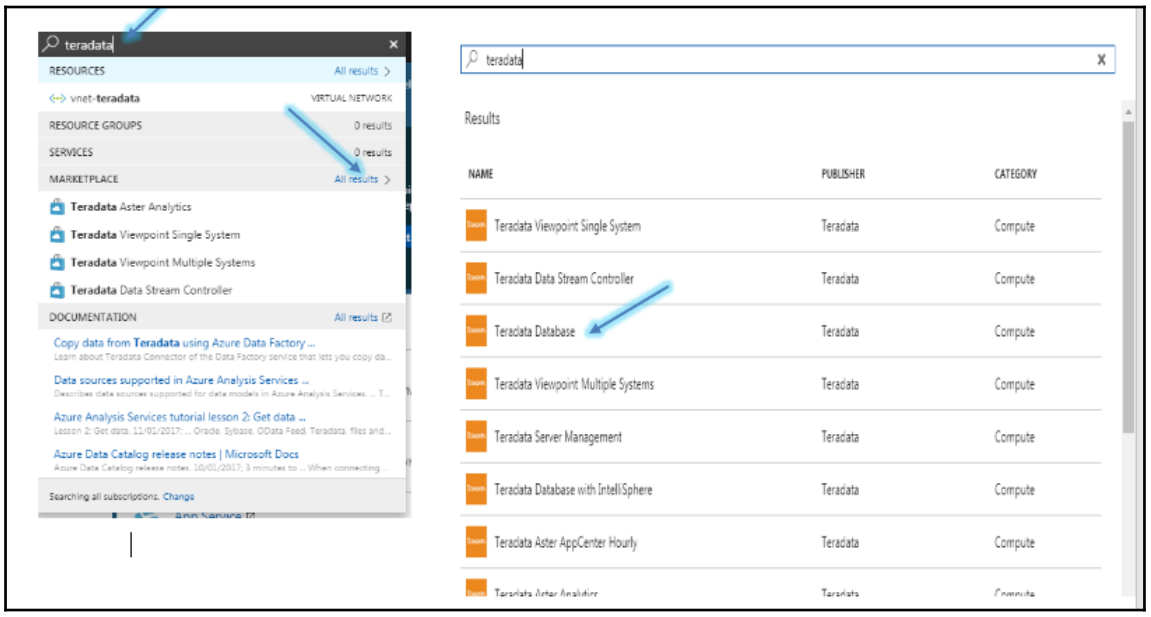

Player
Home
TDExpress15.10.0.7_Sles11_40GB_vp
TDExpress15.10.0.7_Sles11_40GB_vp
State: Powered Off
OS: SUSE Linux Enterprise 11 64-bit
Version: Workstation 6.5-7.x virtual machine
RAM: 4 GB
Play virtual machine
Edit virtual machine settings

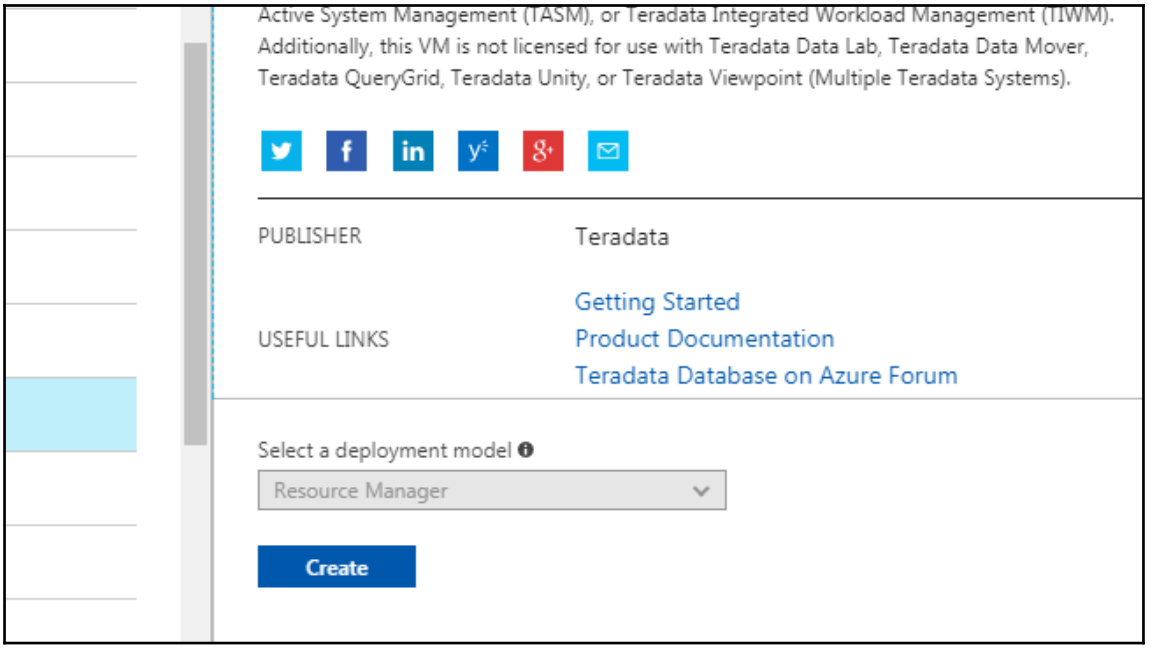

bio: create slab <bio-0> at 0
Dquot-cache hash table entries: 512 (order 0, 4096 bytes)
registered taskstats version 1
Magic number: 1:221:165
doing fast boot
Creating device nodes with udev
sd 0:0:0:0: [sda] Assuming drive cache: write through
sd 0:0:0:0: [sda] Assuming drive cache: write through
sd 0:0:1:0: [sdb] Assuming drive cache: write through
sd 0:0:1:0: [sdb] Assuming drive cache: write through
sd 0:0:1:0: [sdb] Assuming drive cache: write through
sd 0:0:2:0: [sdc] Assuming drive cache: write through
sd 0:0:2:0: [sdc] Assuming drive cache: write through
sd 0:0:2:0: [sdc] Assuming drive cache: write through
sda6 sda7 >
sd 0:0:0:0: [sda] Assuming drive cache: write through
mount: devpts already mounted or /dev/pts busy
mount: according to mtab, devpts is already mounted on /dev/pts
Boot logging started on /dev/tty1(/dev/console) at Sat May 13 02:10:38 2017
Waiting for device /dev/disk/by-label/ROOT-BE1 to appear: ok
fsck from util-linux-ng 2.16
[/sbin/fsck.ext3 (1) -- /] fsck.ext3 -a -C0 /dev/sda2
ROOT-BE1 has gone 633 days without being checked, check forced.
hrtimer: interrupt took 12123732 ns
\ 17.1%
ROOT-BE1: |==========
| 31.5%

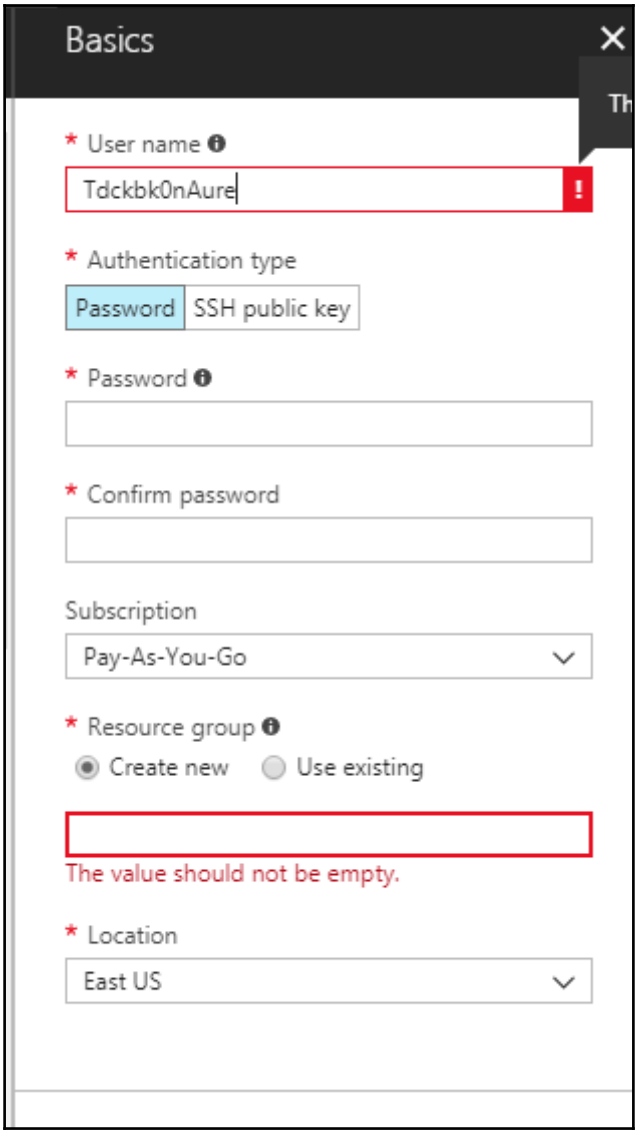

Welcome at TD-EXPRESS
Login:

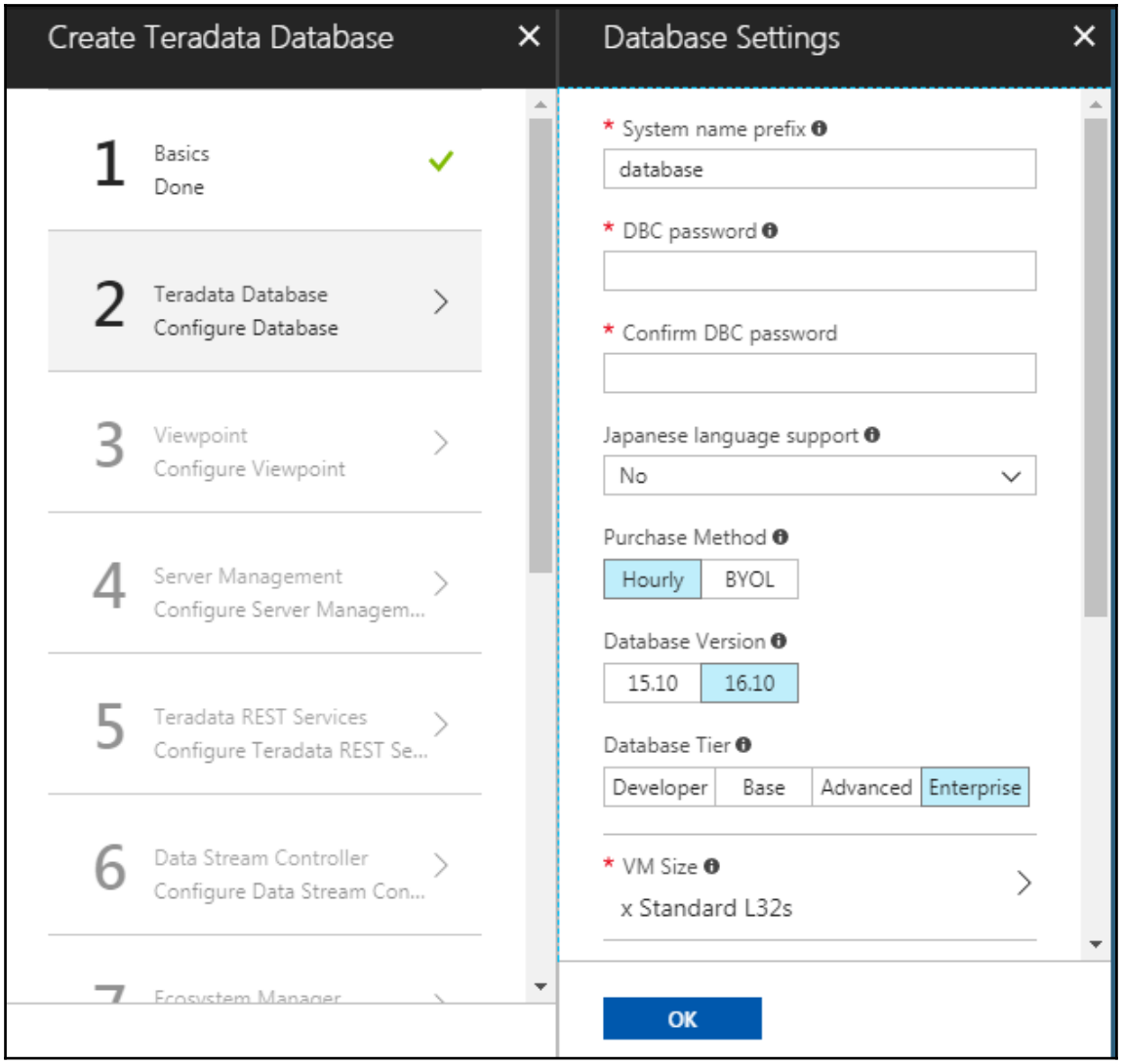

root's Home
Trash
Teradata Tools
Viewpoint Start
Viewpoint Stop
Teradata Studio Express
Gnome Terminal
TERADATA LABS

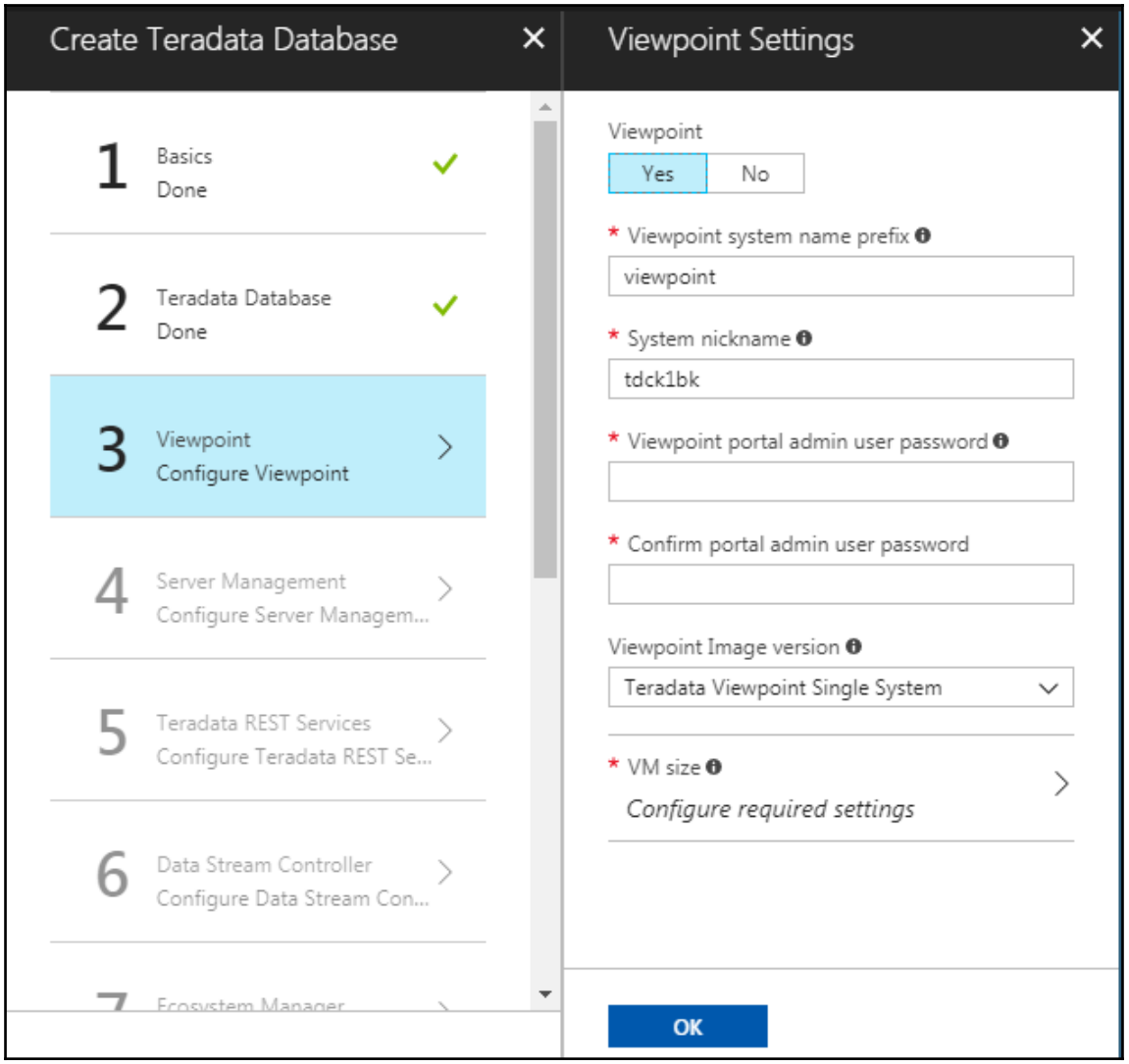

File Edit View Go Bookmarks Tabs Help
Back Forward
opt teradata TeradataStudioExpress workspace SQL
100% Icon View
Places
root
Desktop
File System
Network
Trash
configuration
doc
features
license
p2
plugins
readme
workspace
TeradataStudioExpress
TeradataStudioExpress.ini
about.html
artifacts.xml
epl-v10.html
icon.xpm
notice.html

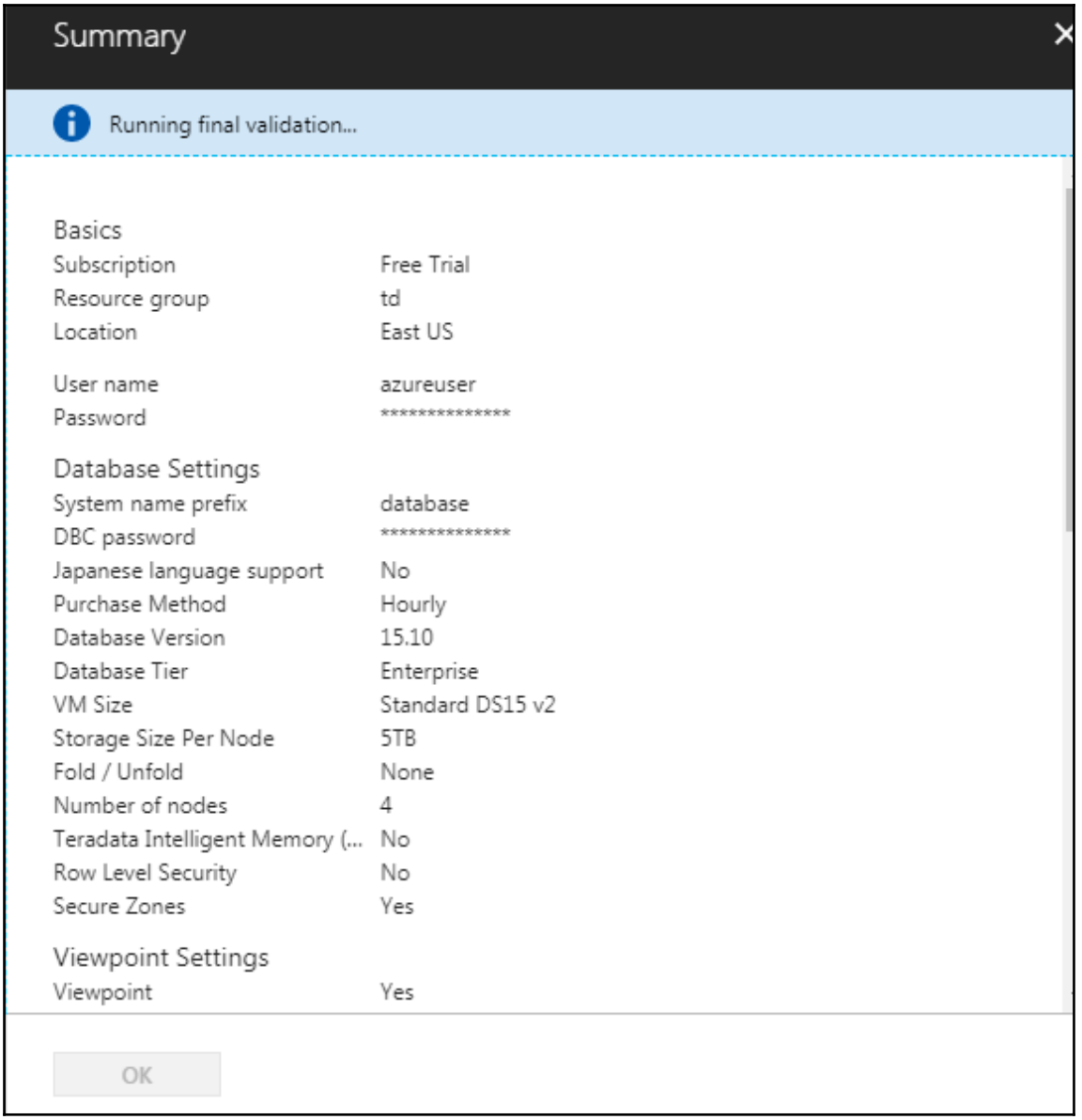

teradata
RESOURCES All results
vnet-teradata VIRTUAL NETWORK
RESOURCE GROUPS 0 results
SERVICES 0 results
MARKETPLACE All results
Teradata Aster Analytics
Teradata Viewpoint Single System
Teradata Viewpoint Multiple Systems
Teradata Data Stream Controller
DOCUMENTATION All results
Copy data from Teradata using Azure Data Factory ...
Data sources supported in Azure Analysis Services ...
Azure Analysis Services tutorial lesson 2: Get data ...
Azure Data Catalog release notes | Microsoft Docs
Searching all subscriptions. Change
teradata
Results
NAME PUBLISHER CATEGORY
Teradata Viewpoint Single System Teradata Compute
Teradata Data Stream Controller Teradata Compute
Teradata Database Teradata Compute
Teradata Viewpoint Multiple Systems Teradata Compute
Teradata Server Management Teradata Compute
Teradata Database with IntelliSphere Teradata Compute
Teradata Aster AppCenter Hourly Teradata Compute

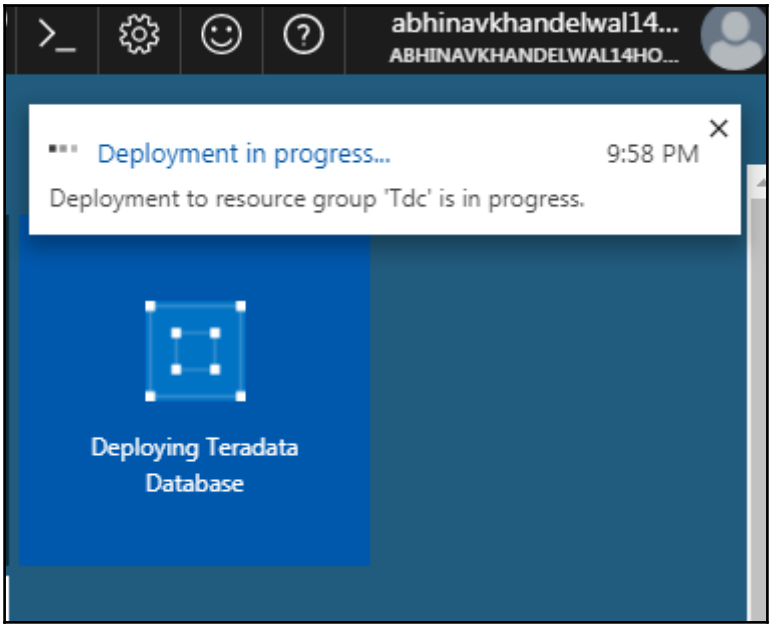

Active System Management (TASM), or Teradata Integrated Workload Management (TIWM). Additionally, this VM is not licensed for use with Teradata Data Lab, Teradata Data Mover, Teradata QueryGrid, Teradata Unity, or Teradata Viewpoint (Multiple Teradata Systems).
PUBLISHER
Teradata
USEFUL LINKS
Getting Started
Product Documentation
Teradata Database on Azure Forum
Select a deployment model
Resource Manager
Create

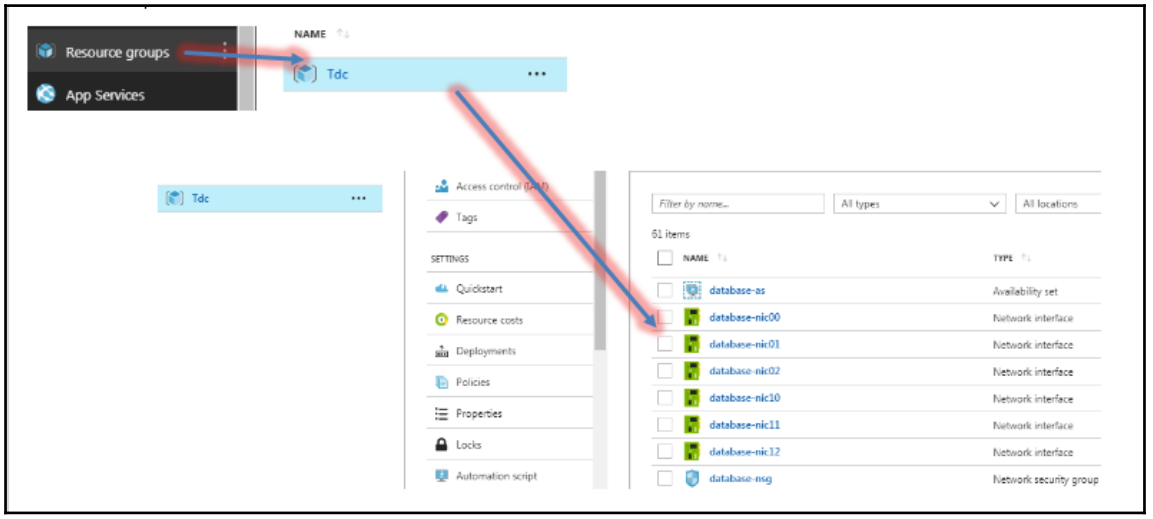

Basics
Th
* User name
Tdckbk0nAure
* Authentication type
Password
SSH public key
* Password
* Confirm password
Subscription
Pay-As-You-Go
* Resource group
Create new
Use existing
The value should not be empty.
* Location
East US

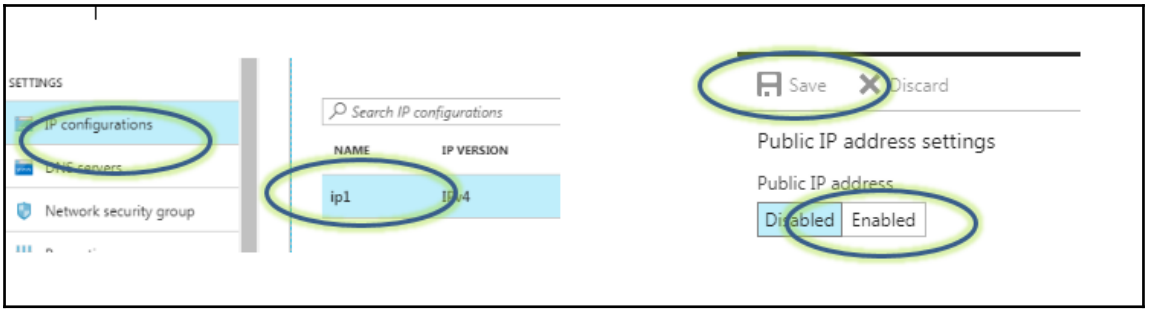

Create Teradata Database
1 Basics
Done
2 Teradata Database
Configure Database
3 Viewpoint
Configure Viewpoint
4 Server Management
Configure Server Managem...
5 Teradata REST Services
Configure Teradata REST Se...
6 Data Stream Controller
Configure Data Stream Con...
Database Settings
* System name prefix
database
* DBC password
* Confirm DBC password
Japanese language support
No
Purchase Method
Hourly
BYOL
Database Version
15.10
16.10
Database Tier
Developer
Base
Advanced
Enterprise
* VM Size
x Standard L32s
OK

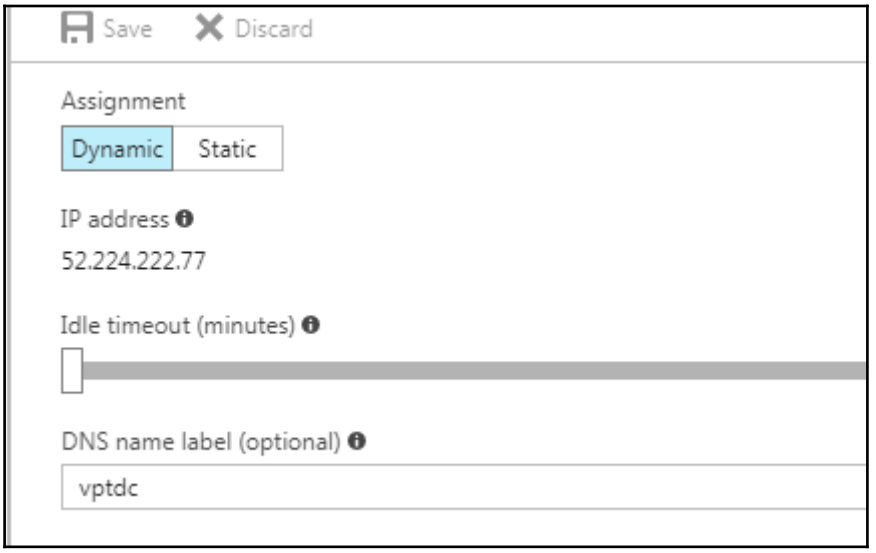

Create Teradata Database
1 Basics
Done
2 Teradata Database
Done
3 Viewpoint
Configure Viewpoint
4 Server Management
Configure Server Managem...
5 Teradata REST Services
Configure Teradata REST Se...
6 Data Stream Controller
Configure Data Stream Con...
Ecosystem Manager
Viewpoint Settings
Viewpoint
Yes
No
* Viewpoint system name prefix
viewpoint
* System nickname
tdck1bk
* Viewpoint portal admin user password
* Confirm portal admin user password
Viewpoint Image version
Teradata Viewpoint Single System
* VM size
Configure required settings
OK

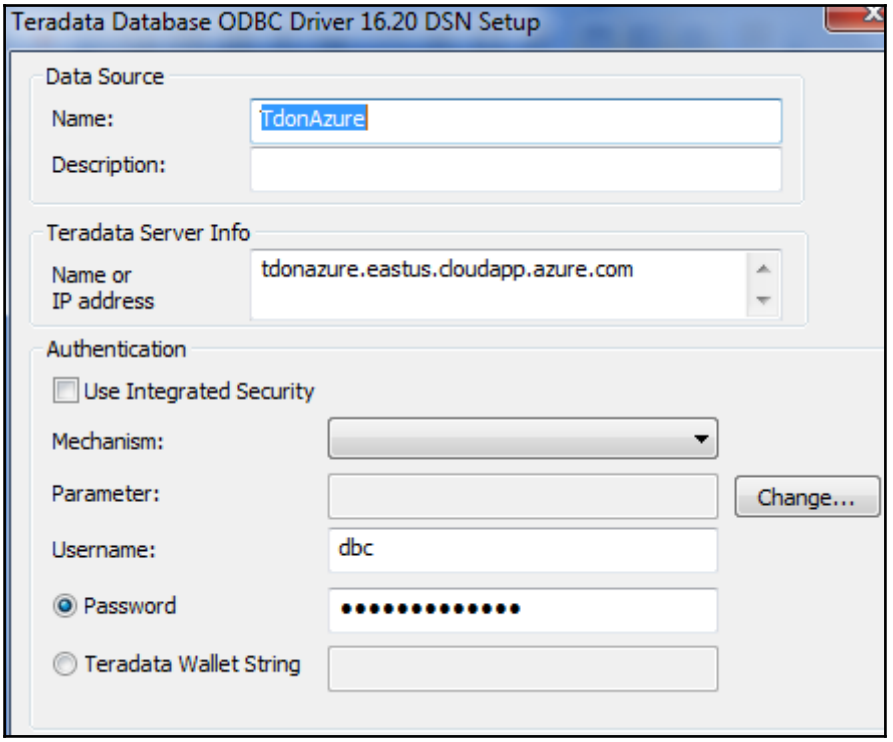

Summary
Running final validation...
Basics
Subscription Free Trial
Resource group td
Location East US
User name azureuser
Password **********
Database Settings
System name prefix database
DBC password **********
Japanese language support No
Purchase Method Hourly
Database Version 15.10
Database Tier Enterprise
VM Size Standard DS15 v2
Storage Size Per Node 5TB
Fold / Unfold None
Number of nodes 4
Teradata Intelligent Memory (... No
Row Level Security No
Secure Zones Yes
Viewpoint Settings
Viewpoint Yes
OK

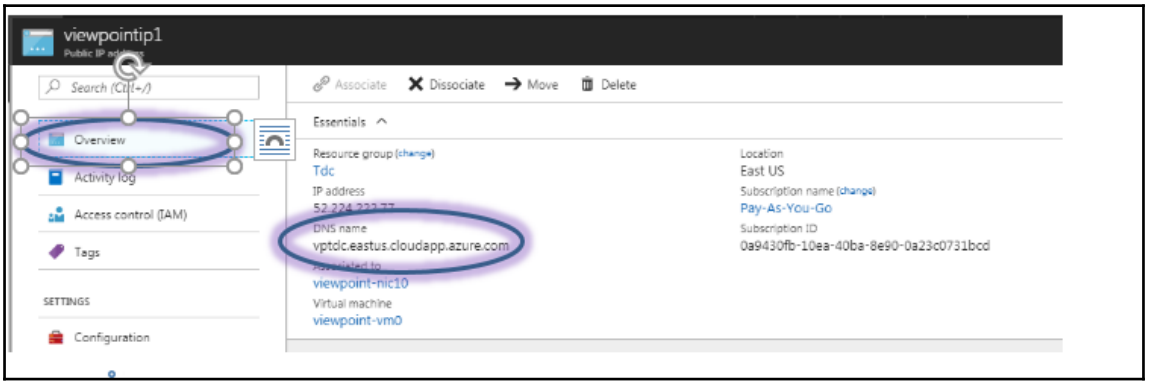

abhinavkhandelwal14...
ABHINAVKHANDELWAL14HO...
Deployment in progress...
9:58 PM
Deployment to resource group 'Tdc' is in progress.
Deploying Teradata Database


Resource groups
App Services
NAME
Tdc
Tdc
Access control (IAM)
Tags
SETTINGS
Quickstart
Resource costs
Deployments
Policies
Properties
Locks
Automation script
Filter by name...
All types
All locations
61 items
NAME
TYPE
database-as
Availability set
database-nic00
Network interface
database-nic01
Network interface
database-nic02
Network interface
database-nic10
Network interface
database-nic11
Network interface
database-nic12
Network interface
database-nsg
Network security group


SETTINGS
IP configurations
Network security group
Search IP configurations
NAME
IP VERSION
ip1
Save
Discard
Public IP address settings
Public IP address
Disabled
Enabled


Save
Discard
Assignment
Dynamic
Static
IP address
52.224.222.77
Idle timeout (minutes)
DNS name label (optional)
vptdc


Teradata Database ODBC Driver 16.20 DSN Setup
Data Source
Name:
TdonAzure
Description:
Teradata Server Info
Name or
IP address
tdonazure.eastus.cloudapp.azure.com
Authentication
Use Integrated Security
Mechanism:
Parameter:
Change...
Username:
dbc
Password
Teradata Wallet String


viewpointip1
Search (Ctrl+/)
Overview
Activity log
Access control (IAM)
Tags
SETTINGS
Configuration
Associate
Dissociate
Move
Delete
Essentials
Resource group (change)
Tdc
IP address
DNS name
vptdc.eastus.cloudapp.azure.com
viewpoint-nic10
Virtual machine
viewpoint-vm0
Location
East US
Subscription name (change)
Pay-As-You-Go
Subscription ID
0a9430fb-10ea-40ba-8e90-0a23c0731bcd

SUPPORT REQUEST

118011317458754

STATUS

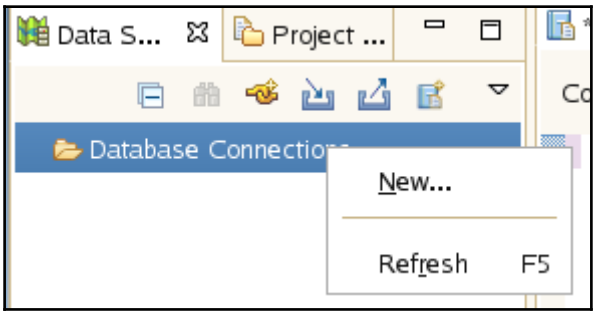
Closed

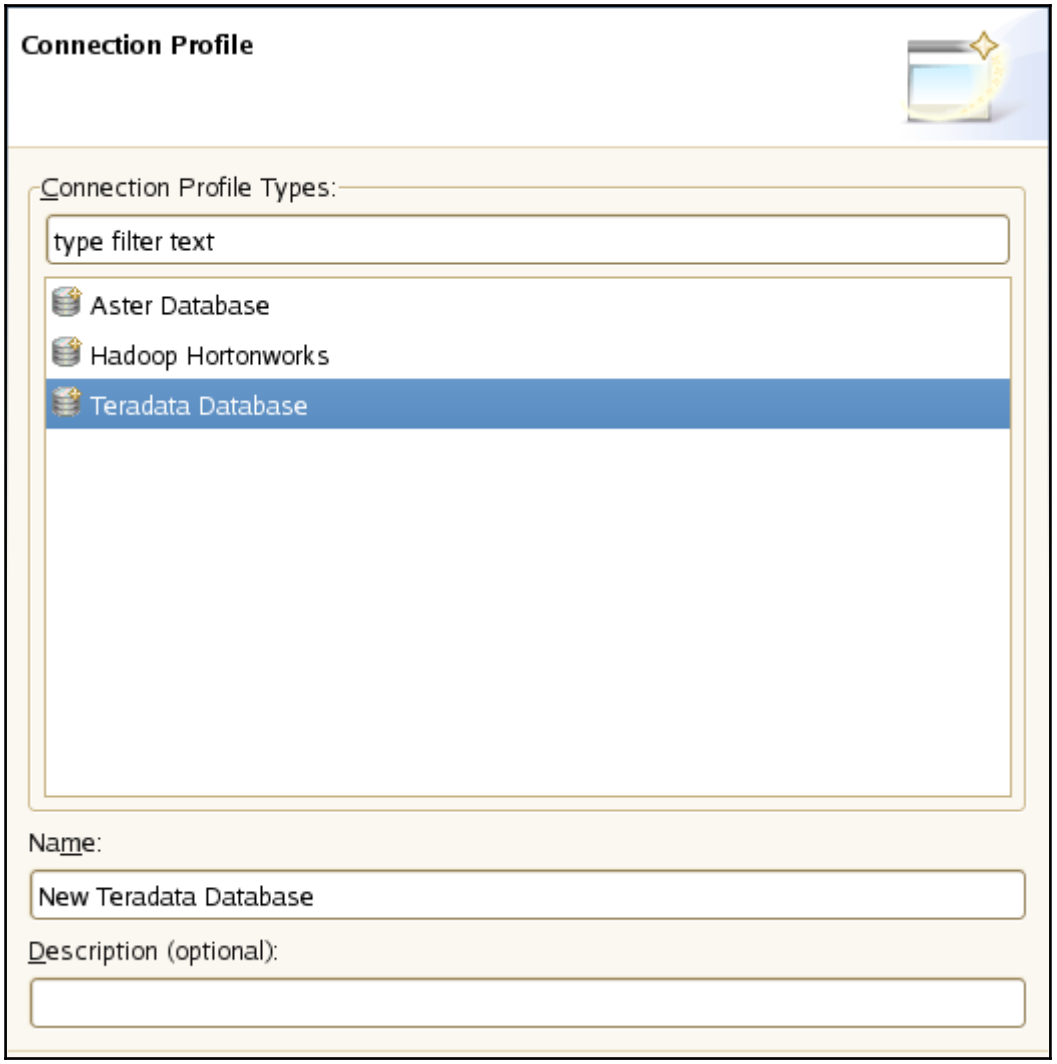
TITLE

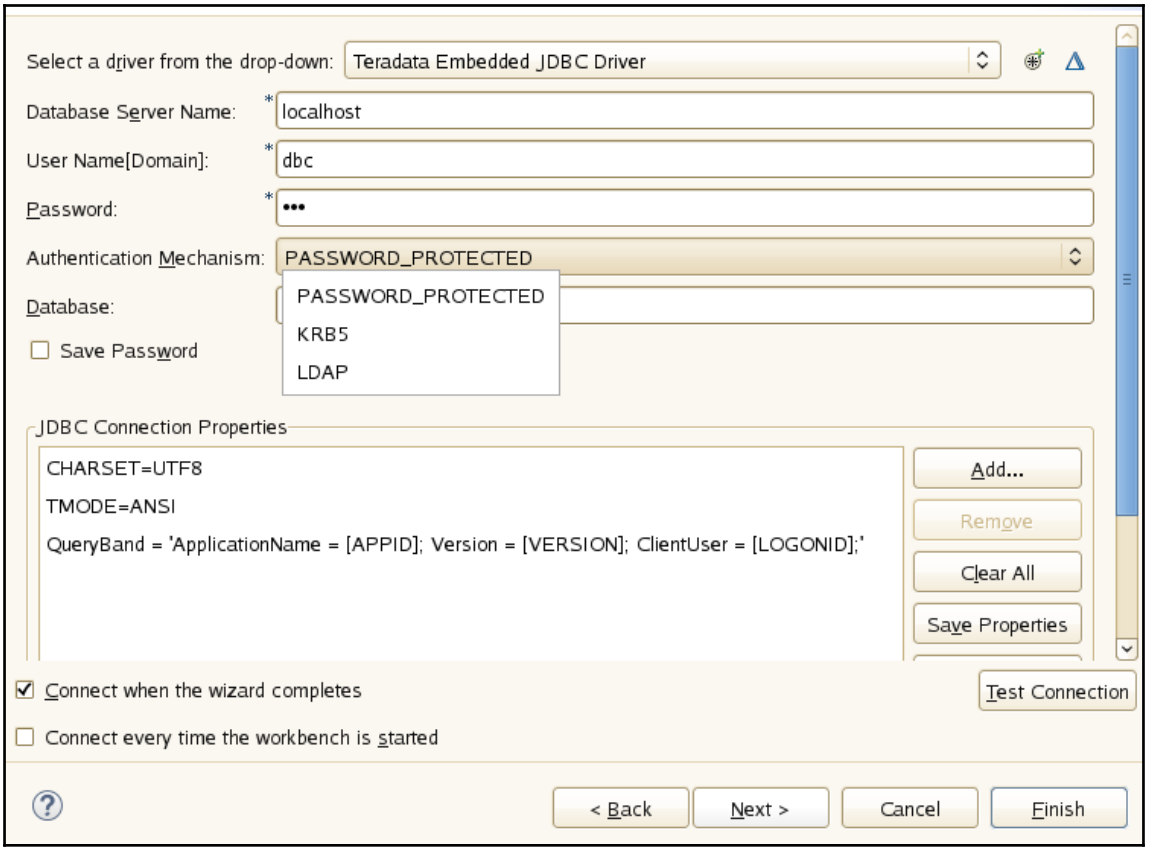
Quota request - Cores
Location- EASTUS
DSv2 Ser

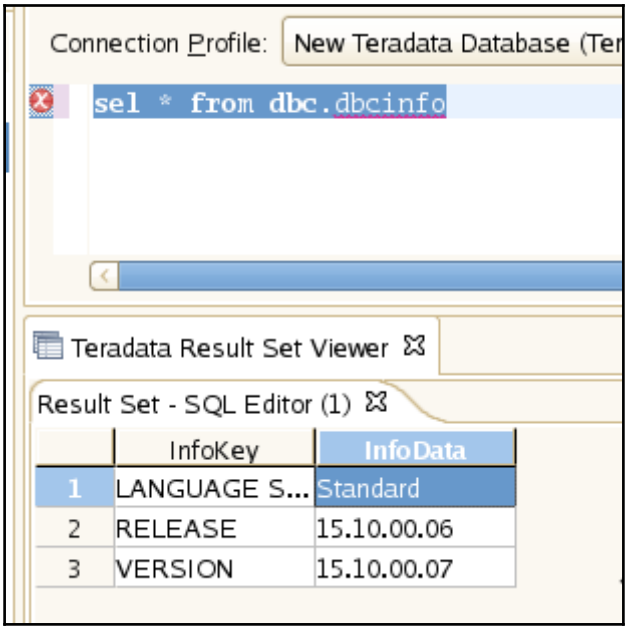
DESCRIPTION

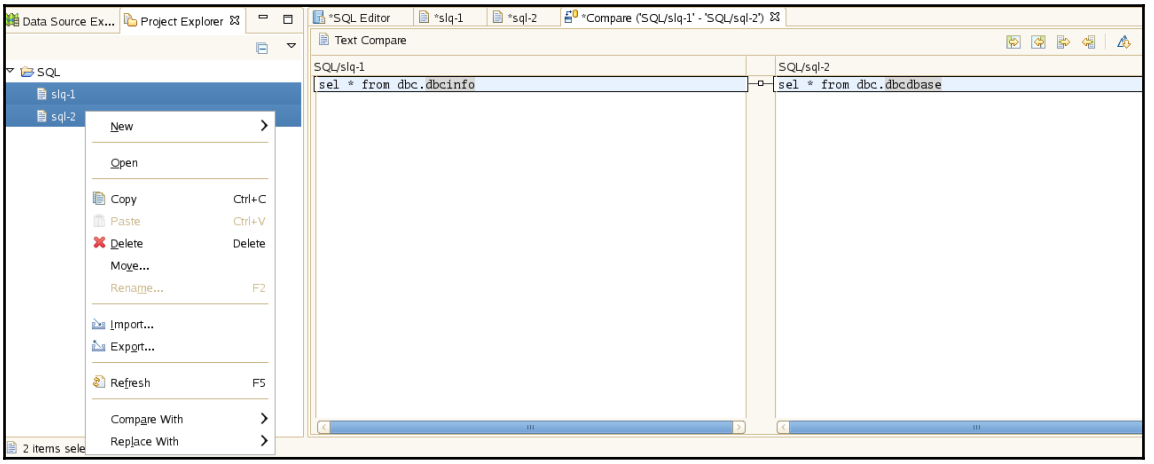
Quota request - Cores
Location- EASTUS
DSv2 Series - 86

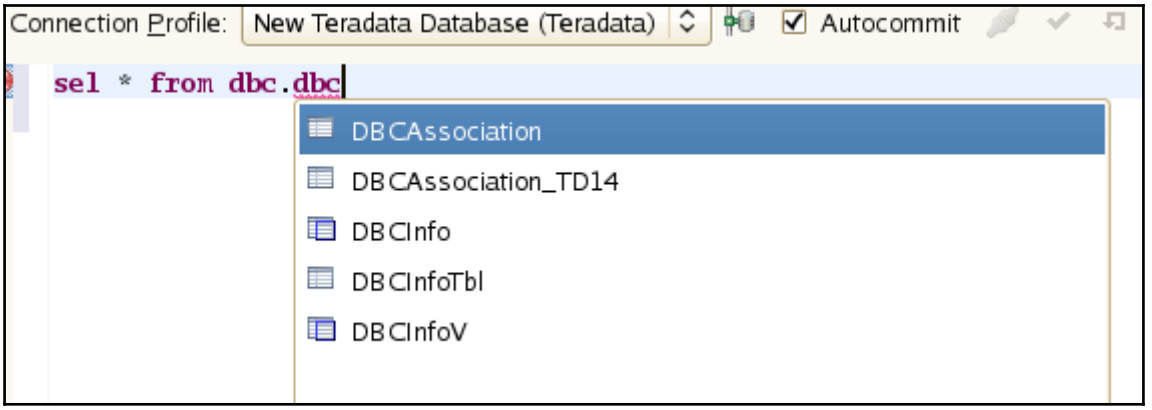


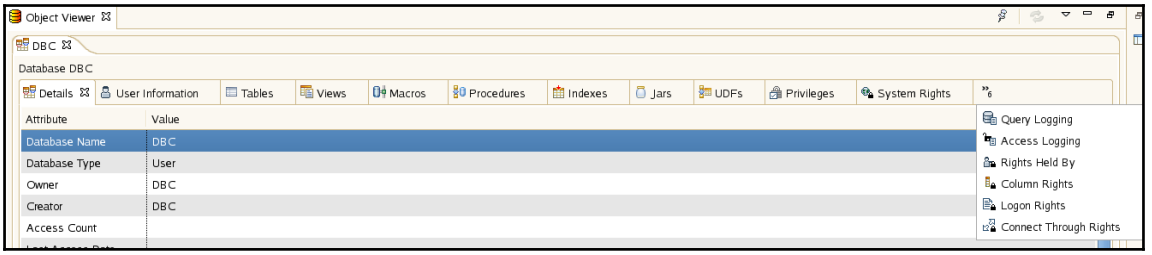

Connection Profile
Connection Profile Types:
type filter text
Aster Database
Hadoop Hortonworks
Teradata Database
Name:
New Teradata Database
Description (optional):

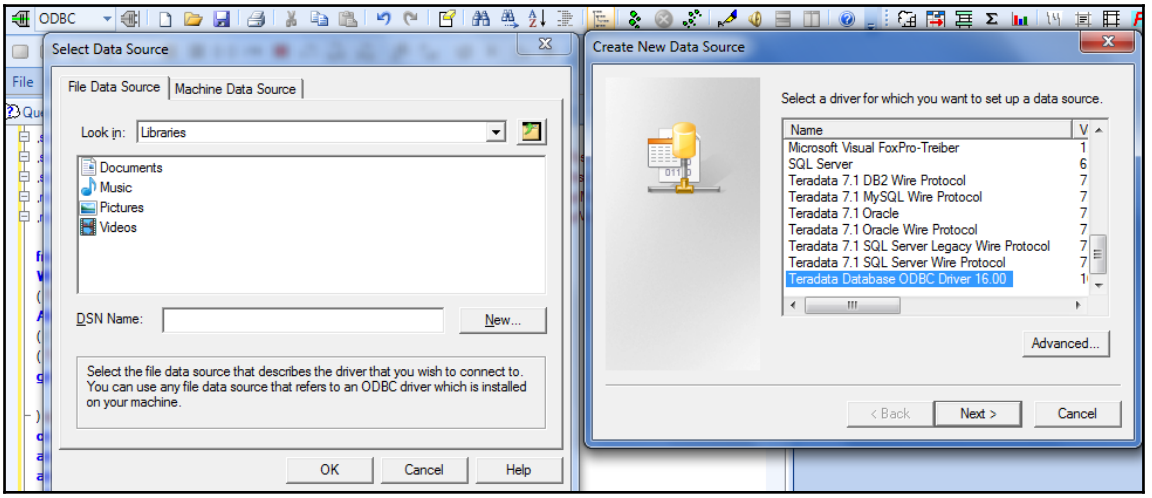

Select a driver from the drop-down:
Teradata Embedded JDBC Driver
Database Server Name:
localhost
User Name[Domain]:
dbc
Password:
Authentication Mechanism:
PASSWORD_PROTECTED
PASSWORD_PROTECTED
KRB5
LDAP
Database:
Save Password
JDBC Connection Properties
CHARSET=UTF8
TMODE=ANSI
QueryBand = 'ApplicationName = [APPID]; Version = [VERSION]; ClientUser = [LOGONID];'
Add...
Remove
Clear All
Save Properties
Connect when the wizard completes
Test Connection
Connect every time the workbench is started
< Back
Next >
Cancel
Finish

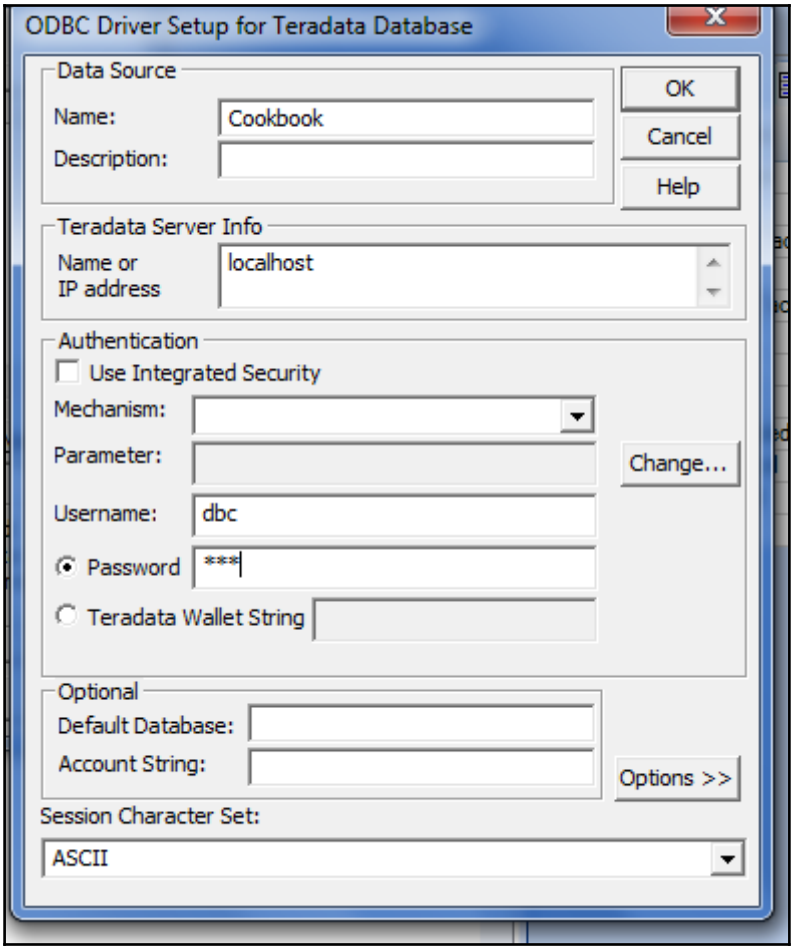

Connection Profile:
New Teradata Database (Ter
sel * from dbc.dbcinfo
Teradata Result Set Viewer
Result Set - SQL Editor (1)
InfoKey
InfoData
1
LANGUAGE S...
Standard
2
RELEASE
15.10.00.06
3
VERSION
15.10.00.07

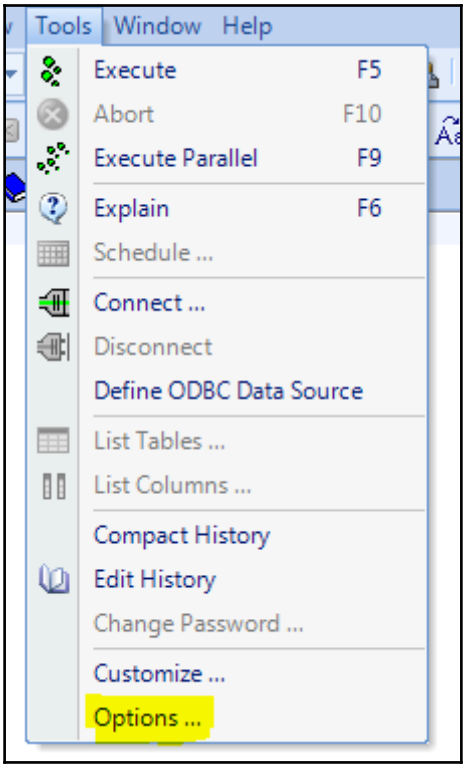

Data Source Ex...
Project Explorer
SQL
slq-1
sql-2
New
Open
Copy Ctrl+C
Paste Ctrl+V
Delete Delete
Move...
Rename... F2
Import...
Export...
Refresh F5
Compare With
Replace With
2 items sele
*SQL Editor
*slq-1
*sql-2
*Compare ('SQL/slq-1' - 'SQL/sql-2')
Text Compare
SQL/slq-1
SQL/sql-2
sel * from dbc.dbcinfo
sel * from dbc.dbcdbase

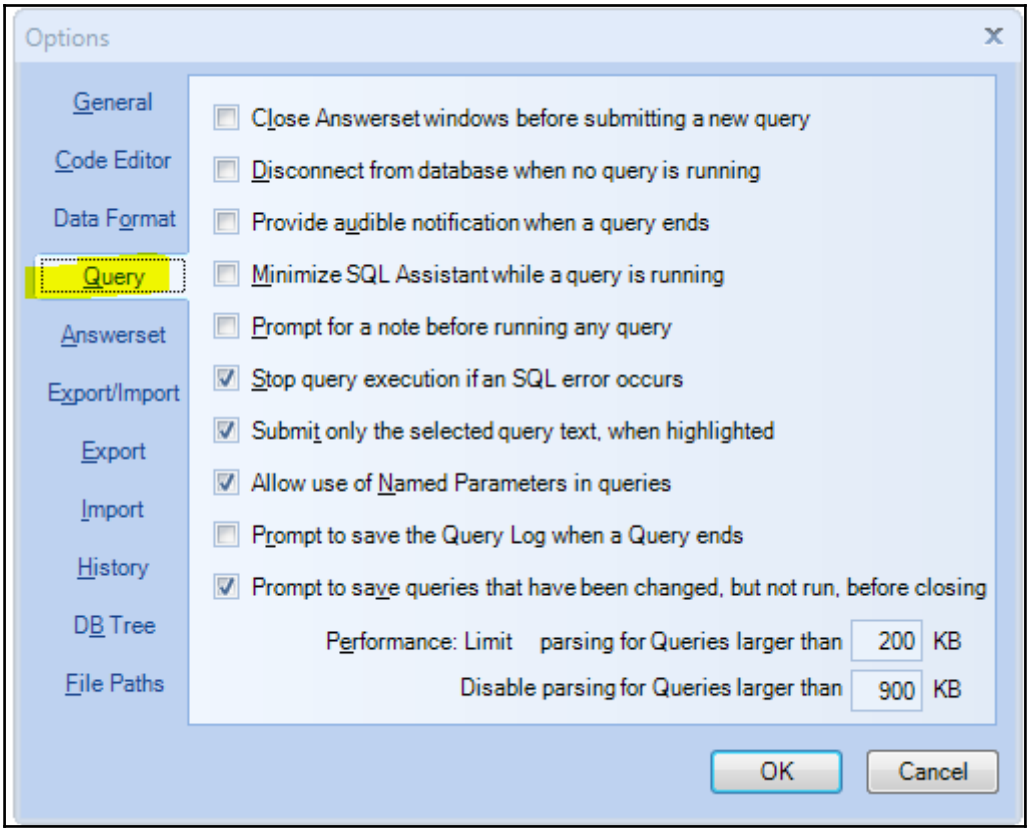

Connection Profile:
New Teradata Database (Teradata)
Autocommit
sel * from dbc.dbc
DBCAssociation
DBCAssociation_TD14
DBCInfo
DBCInfoTbl
DBCInfoV

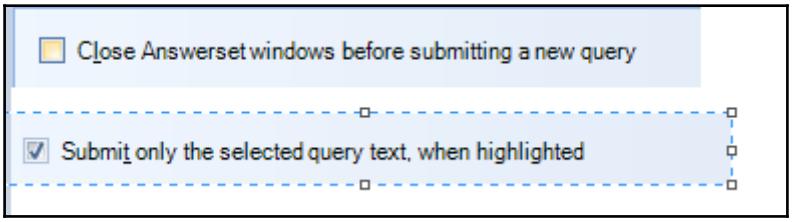

Object Viewer
DBC
Database DBC
Details
User Information
Tables
Views
Macros
Procedures
Indexes
Jars
UDFs
Privileges
System Rights
Attribute
Value
Database Name
DBC
Database Type
User
Owner
DBC
Creator
DBC
Access Count
Query Logging
Access Logging
Rights Held By
Column Rights
Logon Rights
Connect Through Rights

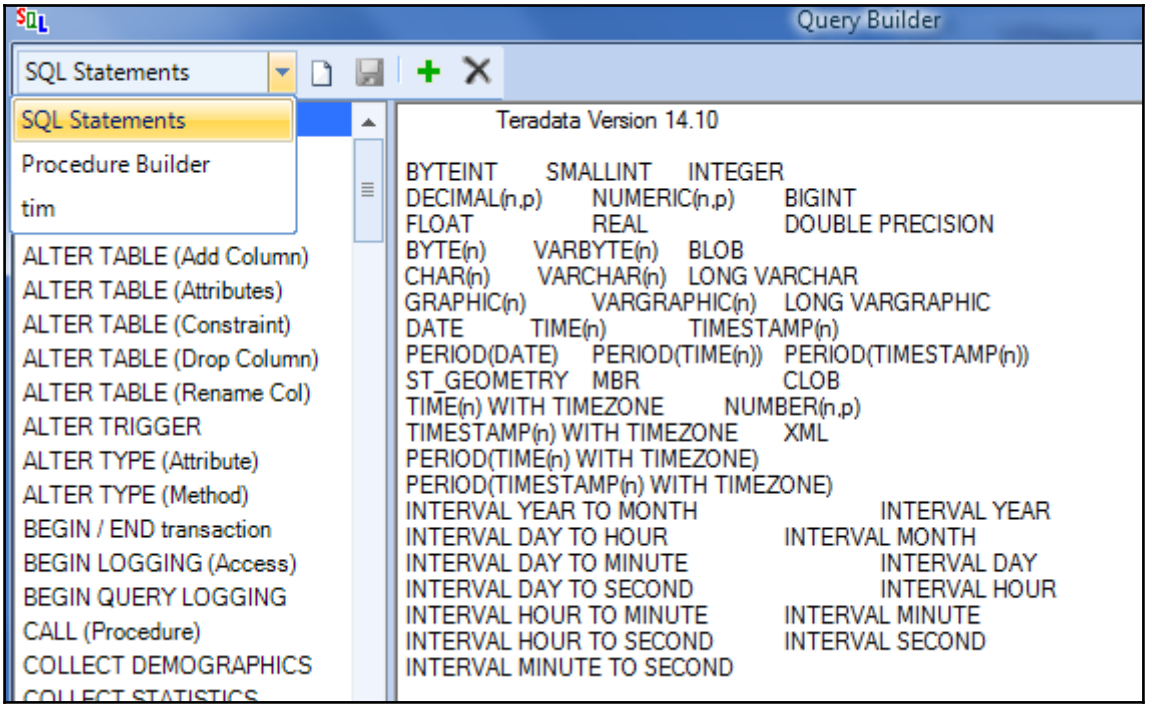

ODBC
Select Data Source
File Data Source
Machine Data Source
Look in:
Libraries
Documents
Music
Pictures
Videos
DSN Name:
New...
Select the file data source that describes the driver that you wish to connect to. You can use any file data source that refers to an ODBC driver which is installed on your machine.
OK
Cancel
Help
Create New Data Source
Select a driver for which you want to set up a data source.
Name
Microsoft Visual FoxPro-Treiber
SQL Server
Teradata 7.1 DB2 Wire Protocol
Teradata 7.1 MySQL Wire Protocol
Teradata 7.1 Oracle
Teradata 7.1 Oracle Wire Protocol
Teradata 7.1 SQL Server Legacy Wire Protocol
Teradata 7.1 SQL Server Wire Protocol
Teradata Database ODBC Driver 16.00
Advanced...
< Back
Next >
Cancel

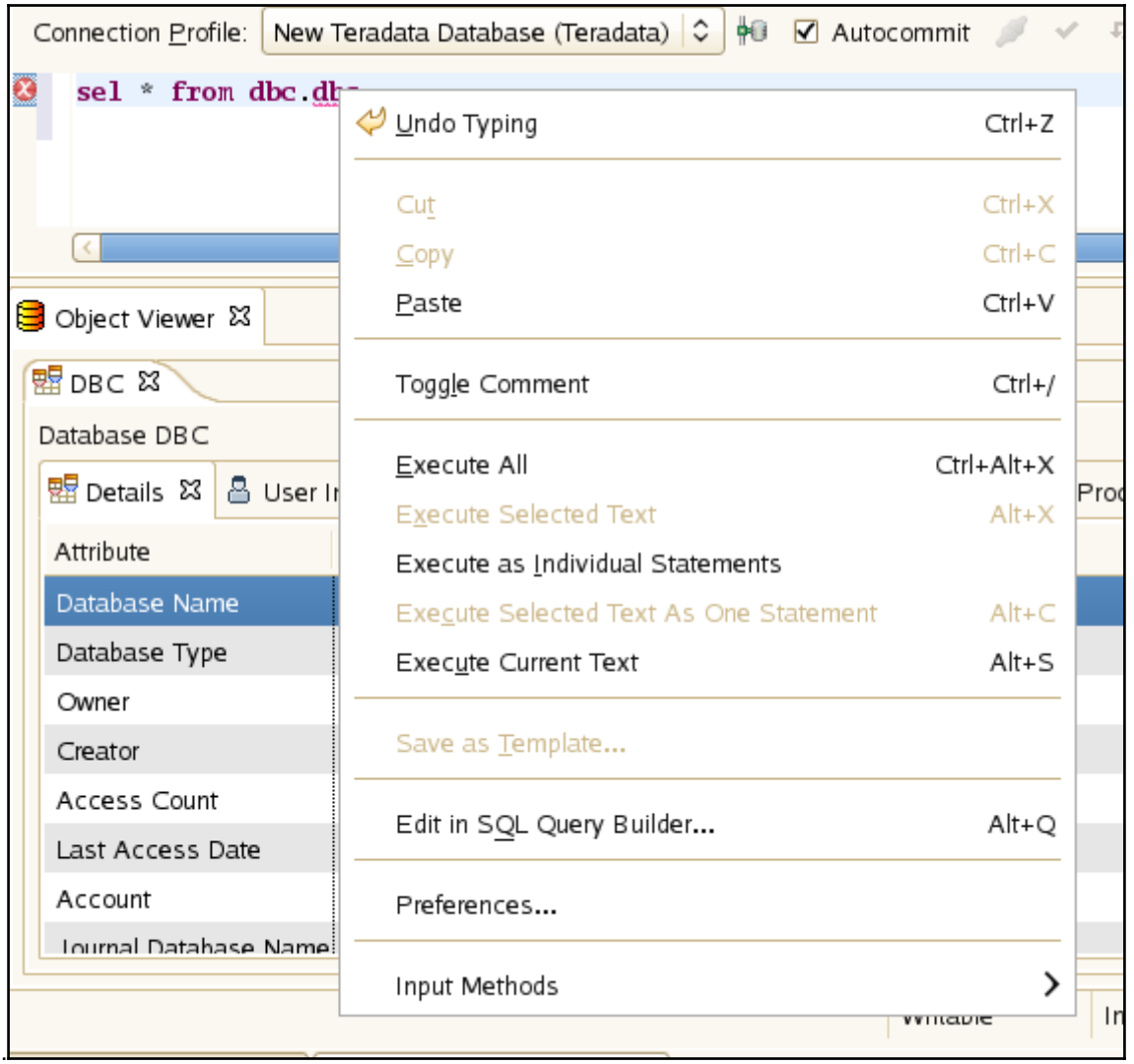

ODBC Driver Setup for Teradata Database
Data Source
Name:
Cookbook
Description:
OK
Cancel
Help
Teradata Server Info
Name or IP address
localhost
Authentication
Use Integrated Security
Mechanism:
Parameter:
Change...
Username:
dbc
Password
***
Teradata Wallet String
Optional
Default Database:
Account String:
Options >>
Session Character Set:
ASCII

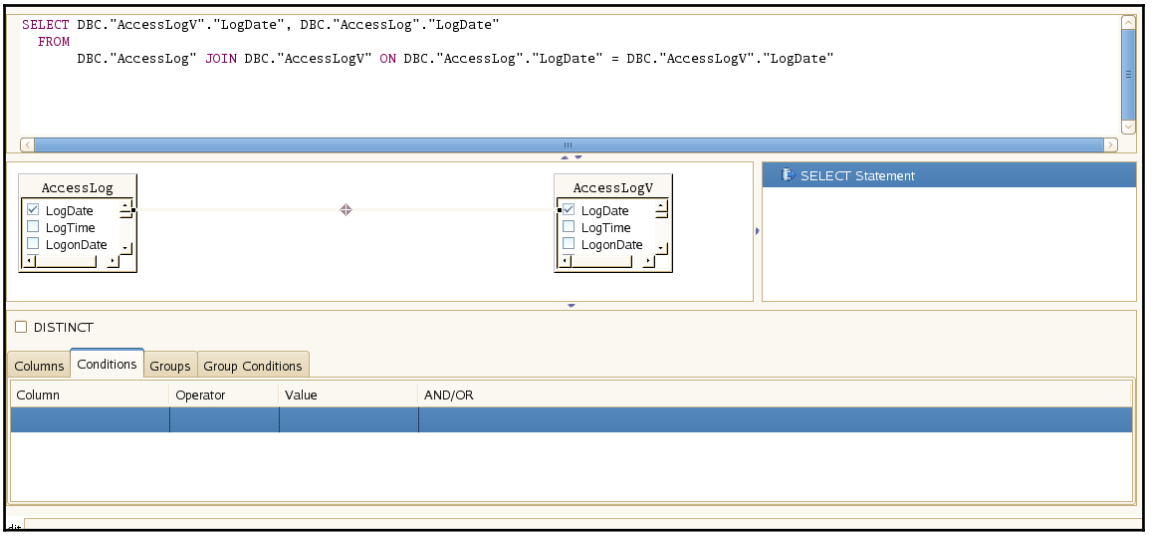

Tools
Window
Help
Execute F5
Abort F10
Execute Parallel F9
Explain F6
Schedule ...
Connect ...
Disconnect
Define ODBC Data Source
List Tables ...
List Columns ...
Compact History
Edit History
Change Password ...
Customize ...
Options ...

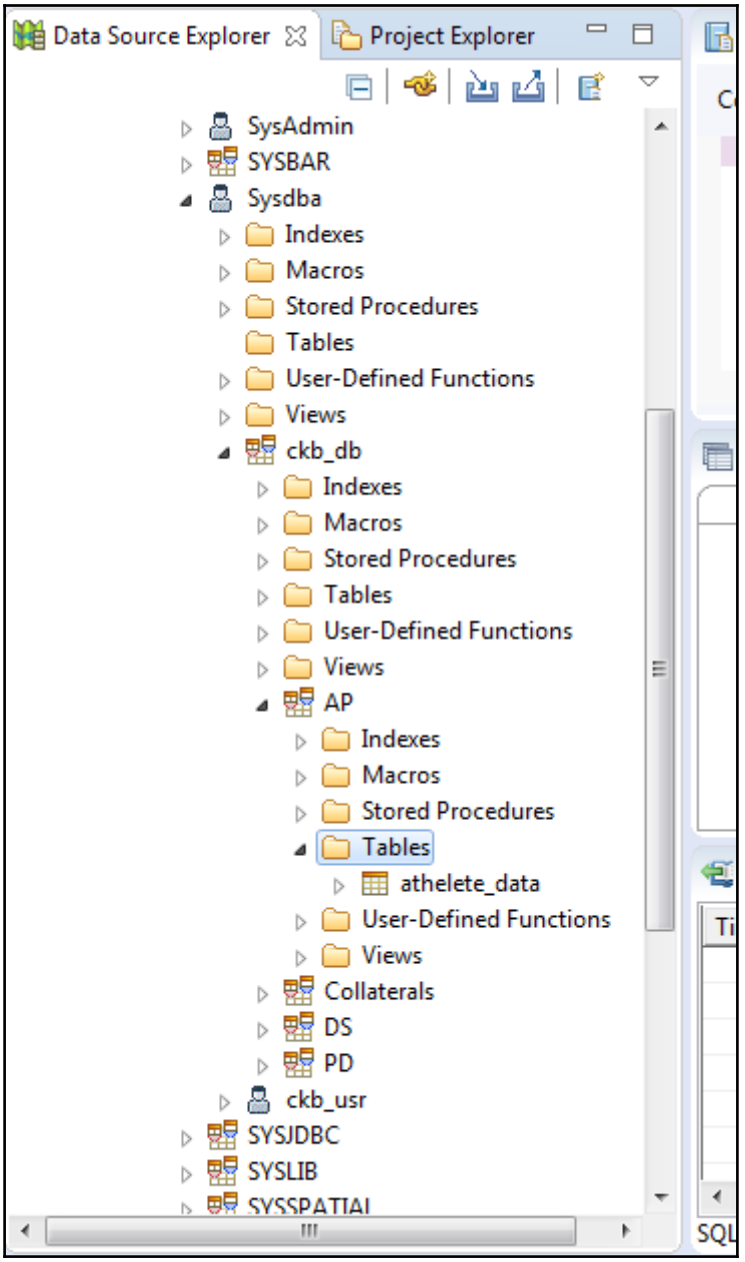

Options
General
Code Editor
Data Format
Query
Answerset
Export/Import
Export
Import
History
DB Tree
File Paths
Close Answerset windows before submitting a new query
Disconnect from database when no query is running
Provide audible notification when a query ends
Minimize SQL Assistant while a query is running
Prompt for a note before running any query
Stop query execution if an SQL error occurs
Submit only the selected query text, when highlighted
Allow use of Named Parameters in queries
Prompt to save the Query Log when a Query ends
Prompt to save queries that have been changed, but not run, before closing
Performance: Limit parsing for Queries larger than 200 KB
Disable parsing for Queries larger than 900 KB
OK
Cancel

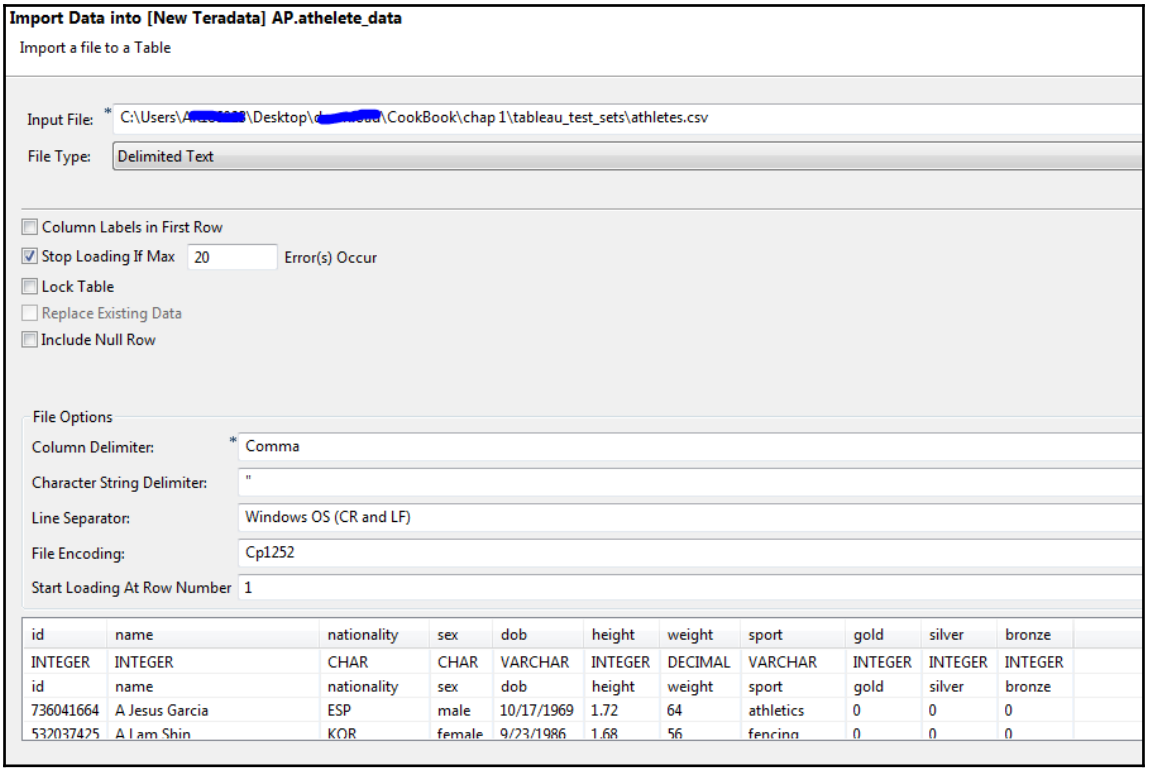

Close Answerset windows before submitting a new query
Submit only the selected query text, when highlighted

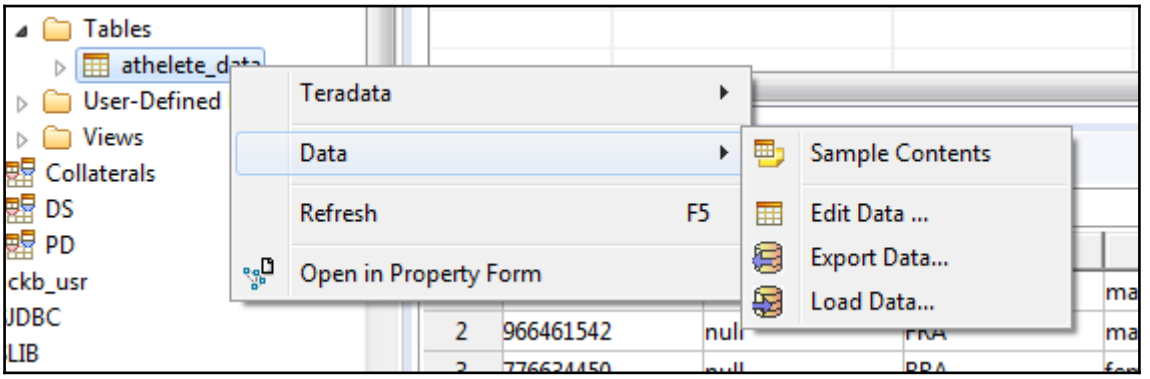

Query Builder
SQL Statements
SQL Statements
Procedure Builder
tim
ALTER TABLE (Add Column)
ALTER TABLE (Attributes)
ALTER TABLE (Constraint)
ALTER TABLE (Drop Column)
ALTER TABLE (Rename Col)
ALTER TRIGGER
ALTER TYPE (Attribute)
ALTER TYPE (Method)
BEGIN / END transaction
BEGIN LOGGING (Access)
BEGIN QUERY LOGGING
CALL (Procedure)
COLLECT DEMOGRAPHICS
Teradata Version 14.10
BYTEINT SMALLINT INTEGER
DECIMAL(n,p) NUMERIC(n,p) BIGINT
FLOAT REAL DOUBLE PRECISION
BYTE(n) VARBYTE(n) BLOB
CHAR(n) VARCHAR(n) LONG VARCHAR
GRAPHIC(n) VARGRAPHIC(n) LONG VARGRAPHIC
DATE TIME(n) TIMESTAMP(n)
PERIOD(DATE) PERIOD(TIME(n)) PERIOD(TIMESTAMP(n))
ST_GEOMETRY MBR CLOB
TIME(n) WITH TIMEZONE NUMBER(n,p)
TIMESTAMP(n) WITH TIMEZONE XML
PERIOD(TIME(n) WITH TIMEZONE)
PERIOD(TIMESTAMP(n) WITH TIMEZONE)
INTERVAL YEAR TO MONTH INTERVAL YEAR
INTERVAL DAY TO HOUR INTERVAL MONTH
INTERVAL DAY TO MINUTE INTERVAL DAY
INTERVAL DAY TO SECOND INTERVAL HOUR
INTERVAL HOUR TO MINUTE INTERVAL MINUTE
INTERVAL HOUR TO SECOND INTERVAL SECOND
INTERVAL MINUTE TO SECOND

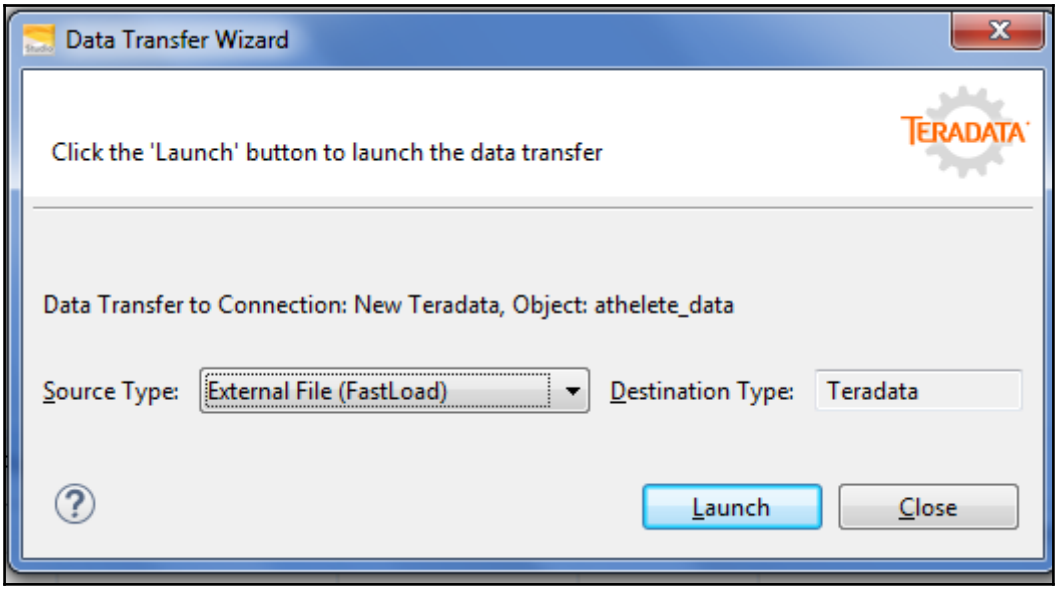

Connection Profile:
New Teradata Database (Teradata)
Autocommit
sel * from dbc.db
Undo Typing Ctrl+Z
Cut Ctrl+X
Copy Ctrl+C
Paste Ctrl+V
Toggle Comment Ctrl+/
Execute All Ctrl+Alt+X
Execute Selected Text Alt+X
Execute as Individual Statements
Execute Selected Text As One Statement Alt+C
Execute Current Text Alt+S
Save as Template...
Edit in SQL Query Builder... Alt+Q
Preferences...
Input Methods
Object Viewer
DBC
Database DBC
Details
Attribute
Database Name
Database Type
Owner
Creator
Access Count
Last Access Date
Account


SELECT DBC."AccessLogV"."LogDate", DBC."AccessLog"."LogDate"
FROM
DBC."AccessLog" JOIN DBC."AccessLogV" ON DBC."AccessLog"."LogDate" = DBC."AccessLogV"."LogDate"
AccessLog
LogDate
LogTime
LogonDate
AccessLogV
LogDate
LogTime
LogonDate
SELECT Statement
DISTINCT
Columns
Conditions
Groups
Group Conditions
Column
Operator
Value
AND/OR

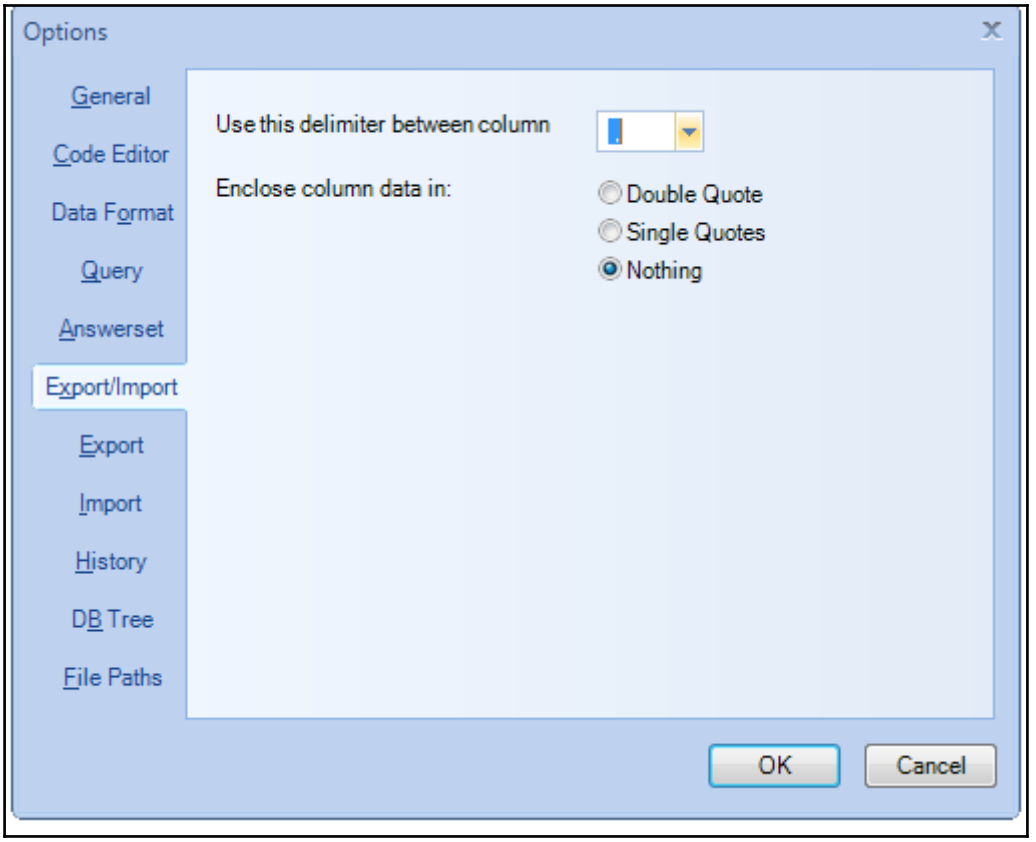

Data Source Explorer
Project Explorer
SysAdmin
SYSBAR
Sysdba
Indexes
Macros
Stored Procedures
Tables
User-Defined Functions
Views
ckb_db
Indexes
Macros
Stored Procedures
Tables
User-Defined Functions
Views
AP
Indexes
Macros
Stored Procedures
Tables
athelete_data
User-Defined Functions
Views
Collaterals
DS
PD
ckb_usr
SYSJDBC
SYSLIB
SYSSPATIAL


Import Data into [New Teradata] AP.athelete_data
Import a file to a Table
Input File: * C:\Users\...\Desktop\...\CookBook\chap 1\tableau_test_sets\athletes.csv
File Type: Delimited Text
Column Labels in First Row
Stop Loading If Max 20 Error(s) Occur
Lock Table
Replace Existing Data
Include Null Row
File Options
Column Delimiter: * Comma
Character String Delimiter: "
Line Separator: Windows OS (CR and LF)
File Encoding: Cp1252
Start Loading At Row Number 1
id name nationality sex dob height weight sport gold silver bronze
INTEGER INTEGER CHAR CHAR VARCHAR INTEGER DECIMAL VARCHAR INTEGER INTEGER INTEGER
id name nationality sex dob height weight sport gold silver bronze
736041664 A Jesus Garcia ESP male 10/17/1969 1.72 64 athletics 0 0 0
532037425 A Lam Shin KOR female 9/23/1986 1.68 56 fencing 0 0 0

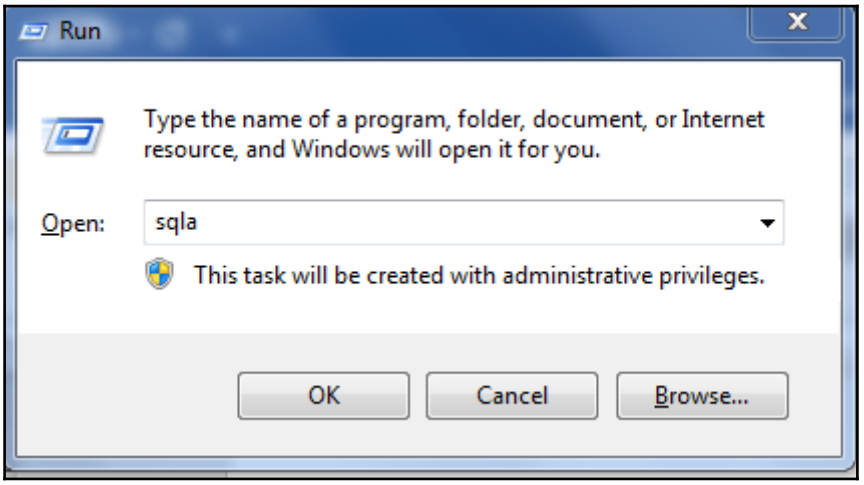

Tables
athelete_data
User-Defined
Views
Collaterals
DS
PD
ckb_usr
JDBC
LIB
Teradata
Data
Refresh F5
Open in Property Form
Sample Contents
Edit Data ...
Export Data...
Load Data...
2 966461542


Data Transfer Wizard
Click the 'Launch' button to launch the data transfer
TERADATA
Data Transfer to Connection: New Teradata, Object: athelete_data
Source Type:
External File (FastLoad)
Destination Type:
Teradata
Launch
Close

Query (local)
History
ins into AP.countries (?,?)
sel * from AP.countries
Answerset 1
country
code
1 Argentina ARG
2 American Samoa* ASA
3 Afghanistan AFG
4 Burundi BDI
5 Antigua and Barbuda ANT
6 Belize BIZ
7 Cape Verde CPV
8 Colombia COL
9 Bermuda* BER
10 Aruba* ARU
11 Albania ALB


Options
General
Code Editor
Data Format
Query
Answerset
Export/Import
Export
Import
History
DB Tree
File Paths
Use this delimiter between column
Enclose column data in:
Double Quote
Single Quotes
Nothing
OK
Cancel

Chapter 2: SQLs

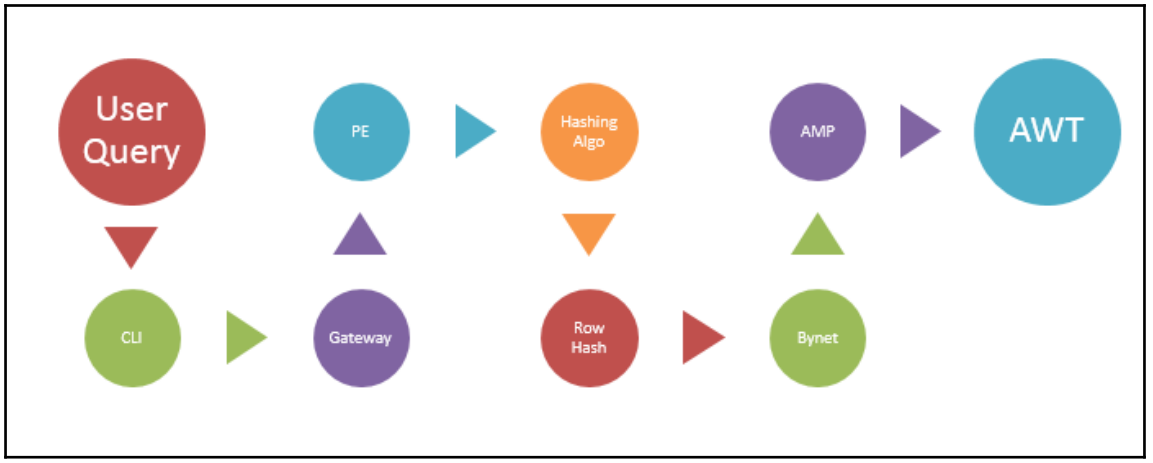


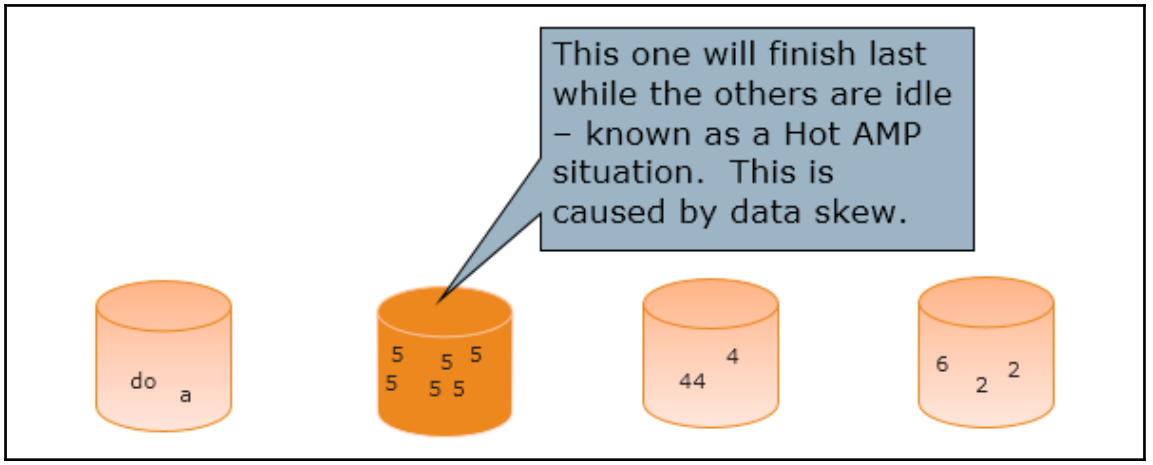

```
SELECT cast(starttime as Date) AS LogDate, (EXTRACT ( HOUR
FROM starttime )(TITLE 'Hour')) ,  SUM ( AMPCPUTime +ParserCPUTime ) as TotalCPU, Count(*) as QueryCount
FROM dbc.dbqlogtbl
WHERE       logdate =date
      and username=cookbook_user
      GROUP       BY 1 , 2
order  by 1,2 ;
```

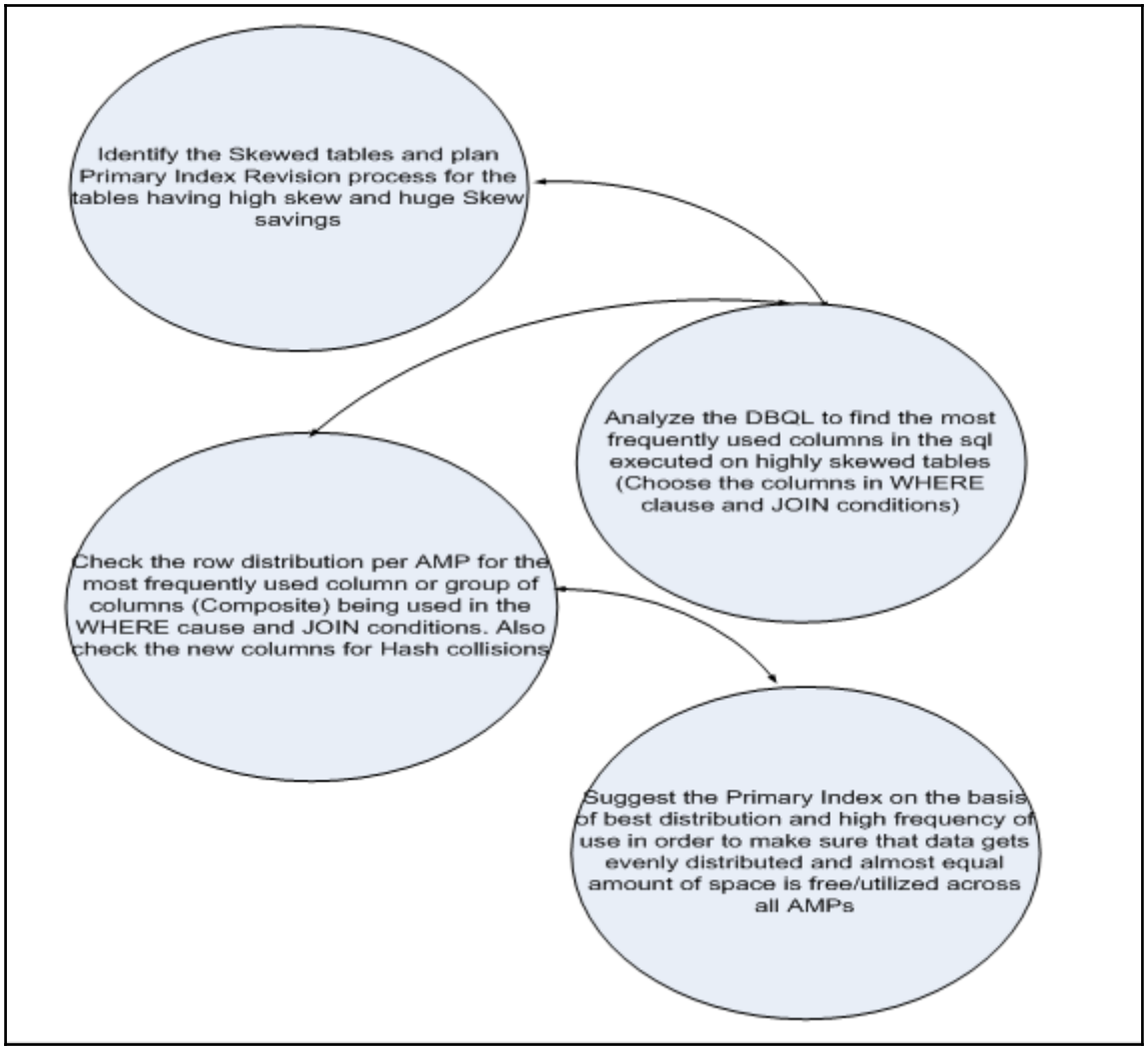
```
C:\Users\abhi_ckbk\bteq
```

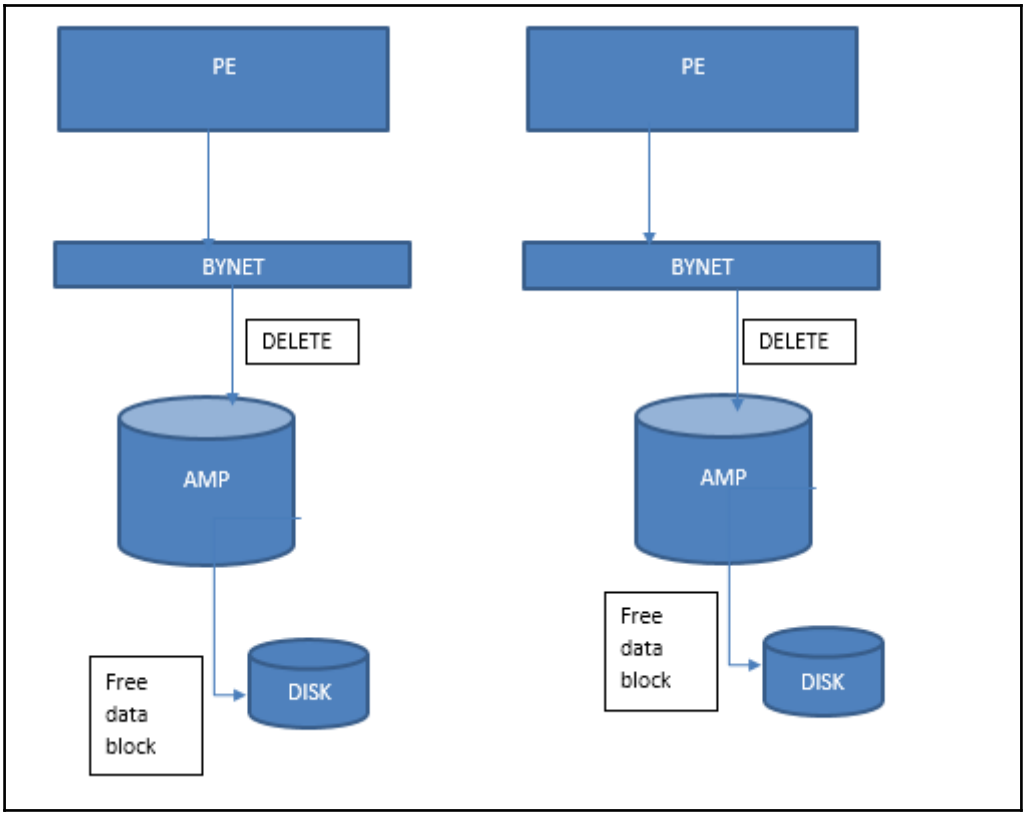
```
Teradata BTEQ 16.00.00.02 for WIN32. PID: 10392
Copyright 1984-2016, Teradata Corporation. ALL RIGHTS RESERVED.
Enter your logon or BTEQ command:
.logon local/username,password
```

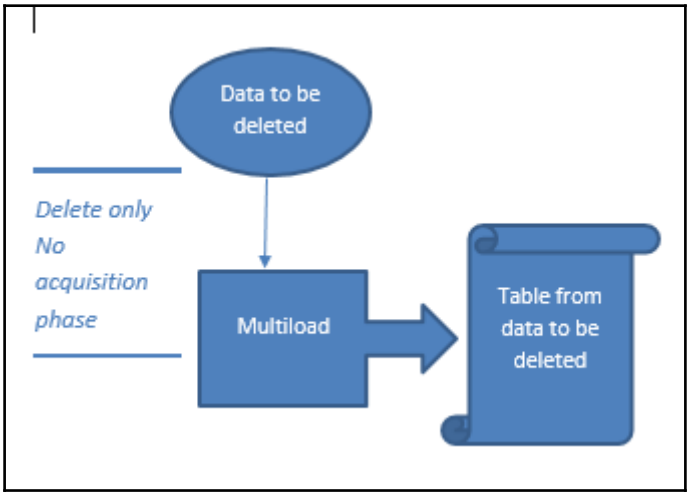
```
C:\Users\abhi_ckbk\bteq < test_script > log.txt
```


User Query
PE
Hashing Algo
AMP
AWT
CLI
Gateway
Row Hash
Bynet


This one will finish last while the others are idle – known as a Hot AMP situation. This is caused by data skew.
do
a
5 5 5 5 5 5
44
4
6
2
2

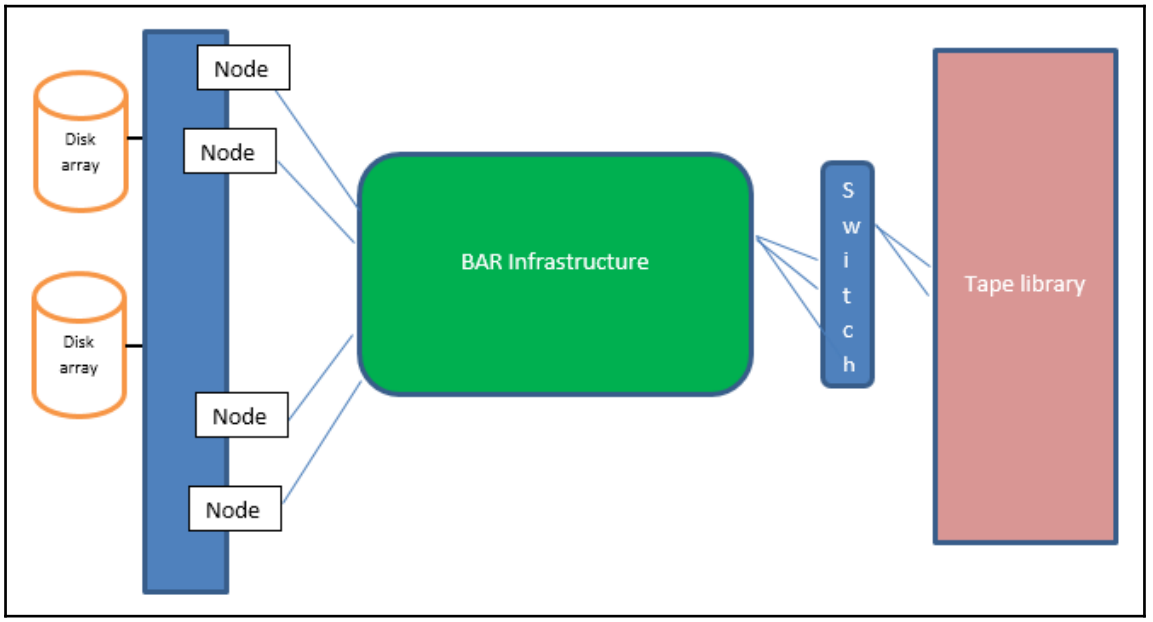

Identify the Skewed tables and plan Primary Index Revision process for the tables having high skew and huge Skew savings
Analyze the DBQL to find the most frequently used columns in the sql executed on highly skewed tables (Choose the columns in WHERE clause and JOIN conditions)
Check the row distribution per AMP for the most frequently used column or group of columns (Composite) being used in the WHERE cause and JOIN conditions. Also check the new columns for Hash collisions
Suggest the Primary Index on the basis of best distribution and high frequency of use in order to make sure that data gets evenly distributed and almost equal amount of space is free/utilized across all AMPs

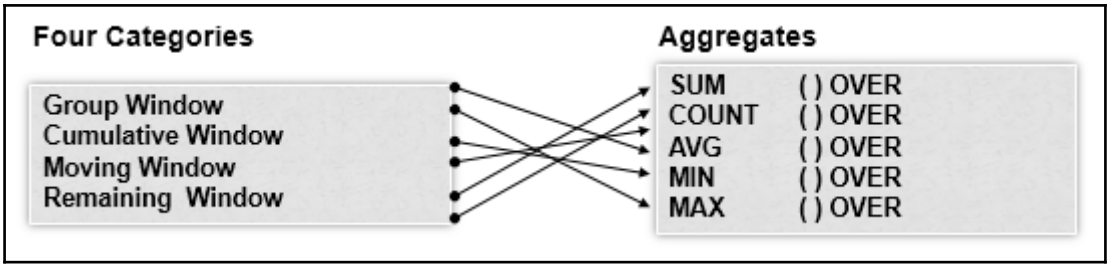

PE
PE
BYNET
BYNET
DELETE
DELETE
AMP
AMP
Free
data
block
DISK
Free
data
block
DISK

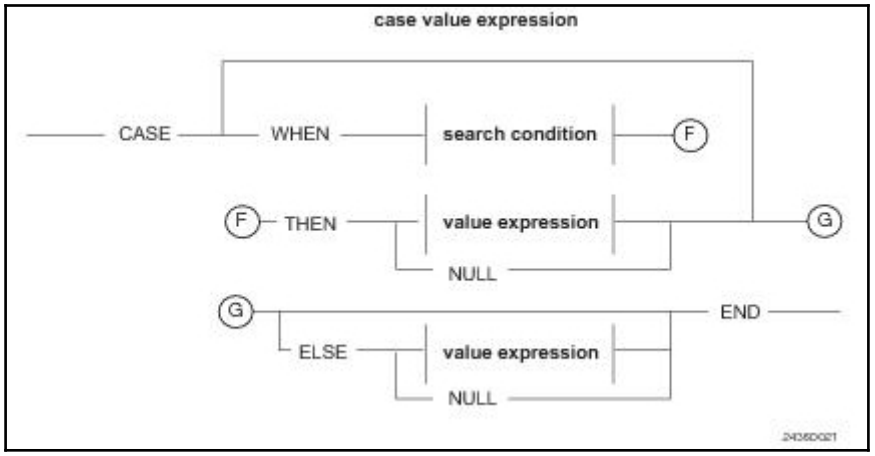

Data to be deleted
Delete only
No
acquisition
phase
Multiload
Table from data to be deleted

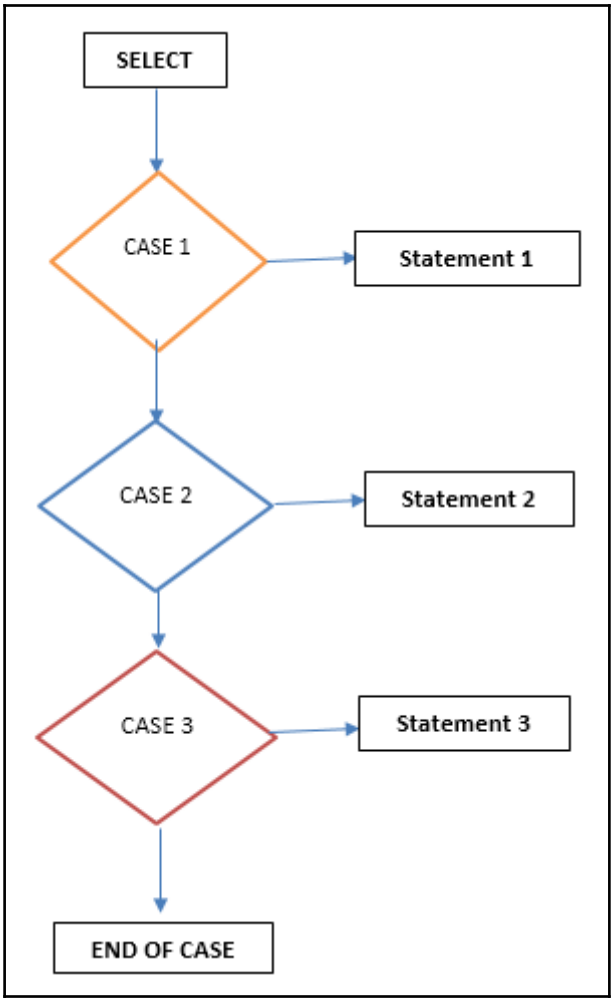
IF the source and target rows …	THEN the merge operation is an …
Satisfy the matching condition	update based on the specified WHEN MATCHED THEN UPDATE clause.
Do **not** satisfy the matching condition	insert based on the specified WHEN NOT MATCHED THEN INSERT clause.

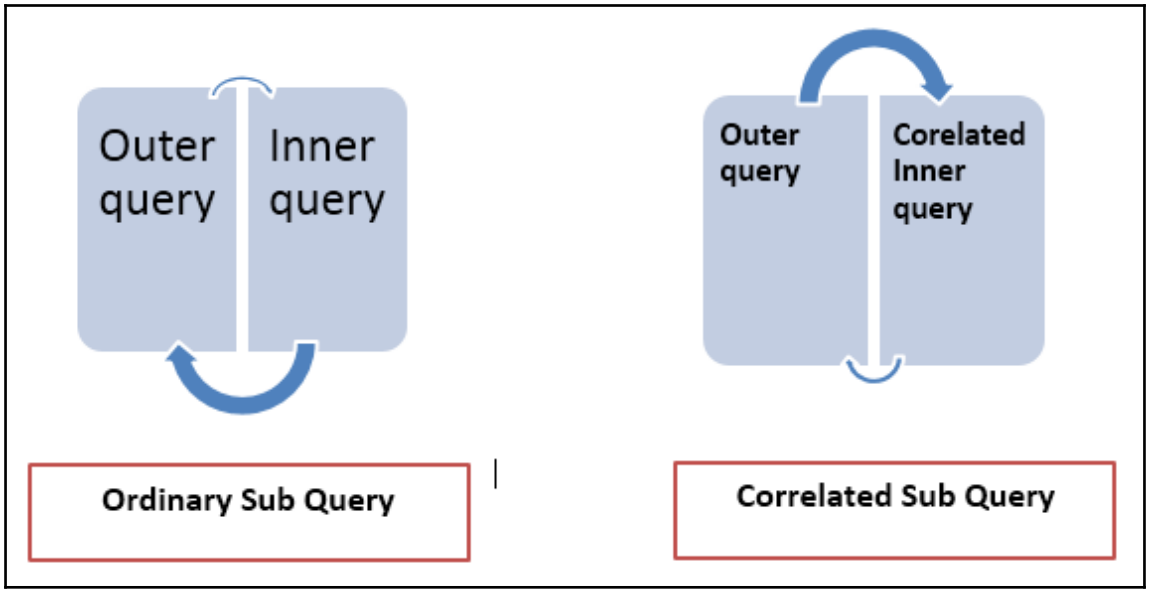
Chapter 3: Advanced SQL with Backup and Restore





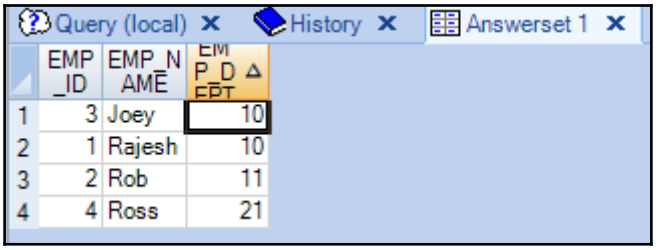

case value expression
CASE
WHEN
search condition
F
F
THEN
value expression
NULL
G
G
ELSE
value expression
NULL
END


SELECT
CASE 1
Statement 1
CASE 2
Statement 2
CASE 3
Statement 3
END OF CASE




```
CREATE VOLATILE TABLE EMP_TBL1
(
EMP_ID INTEGER ,
EMP_NAME VARCHAR(25),
EMP_DEPT INTEGER
) with data
primary index(EMP_ID)
on commit preserve rows;

INSERT INTO EMP_TBL1 VALUES (1,'Rajesh',10);
INSERT INTO EMP_TBL1 VALUES (2,'Rob',11);
INSERT INTO EMP_TBL1 VALUES (3,'Joey',10);
INSERT INTO EMP_TBL1 VALUES (4,'Ross','21');
INSERT INTO EMP_TBL1 VALUES (5,'Rose','22');
```

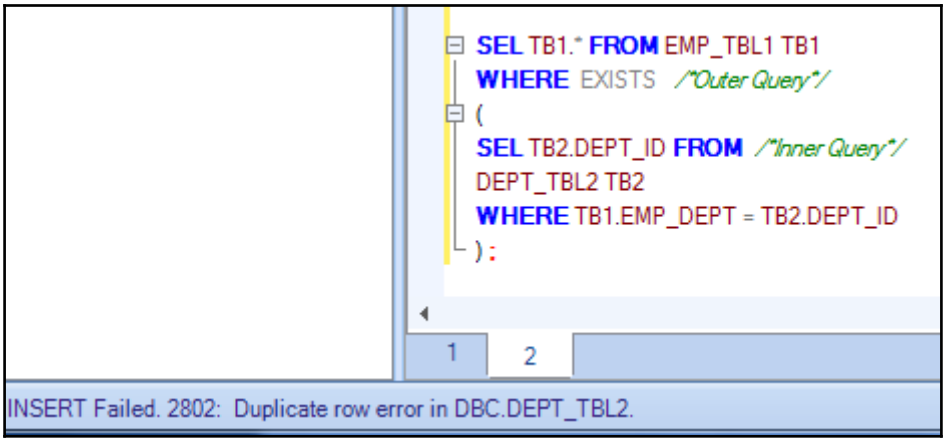
```
CREATE VOLATILE TABLE DEPT_TBL2
(
DEPT_ID INTEGER,
DEPT_NAME VARCHAR(10),
DEPT_CNTRY VARCHAR(10)
) with data
PRIMARY INDEX(DEPT_ID)
on commit preserve rows;

INSERT INTO DEPT_TAB VALUES (10,'IT','IN');
INSERT INTO DEPT_TAB VALUES (11,'HR','US');
INSERT INTO DEPT_TAB VALUES (21,'MKT','AUS');
```

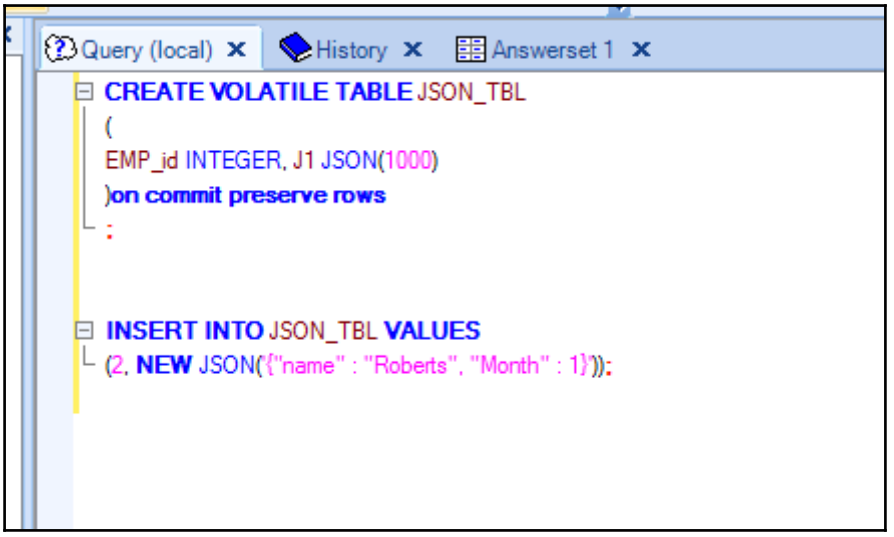


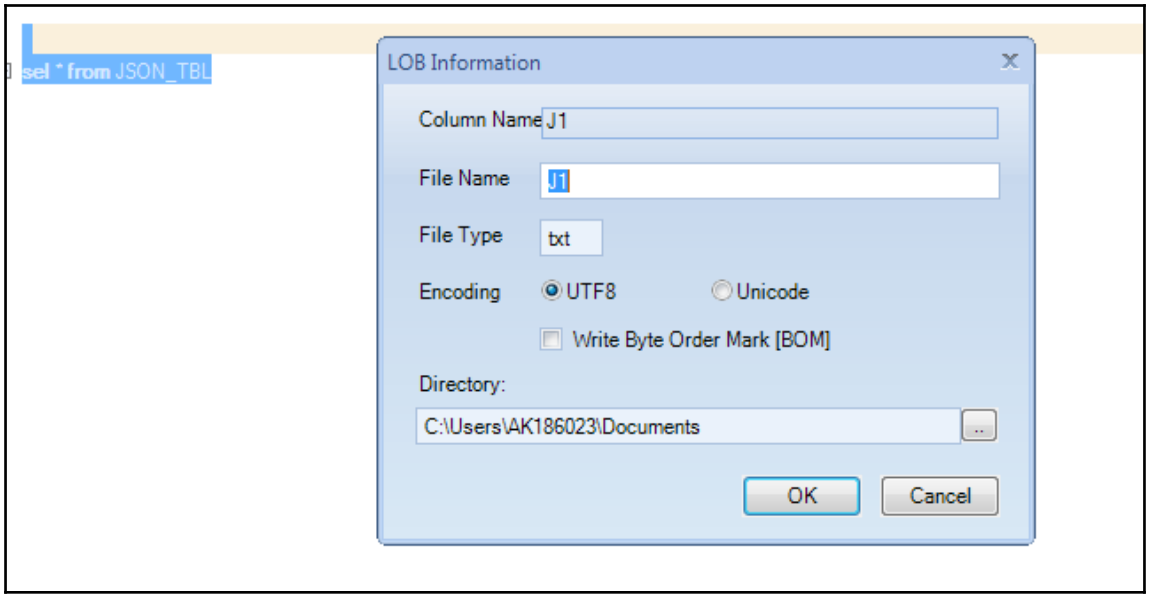
Query (local) History Answerset 1

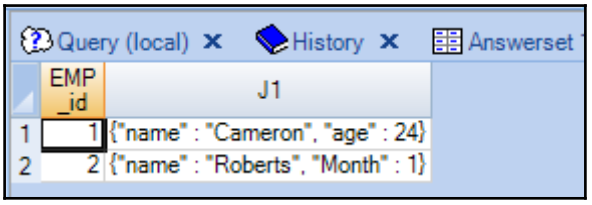
	EMP_ID	EMP_NAME	EMP_DEPT
1	3	Joey	10
2	1	Rajesh	10
3	2	Rob	11
4	4	Ross	21

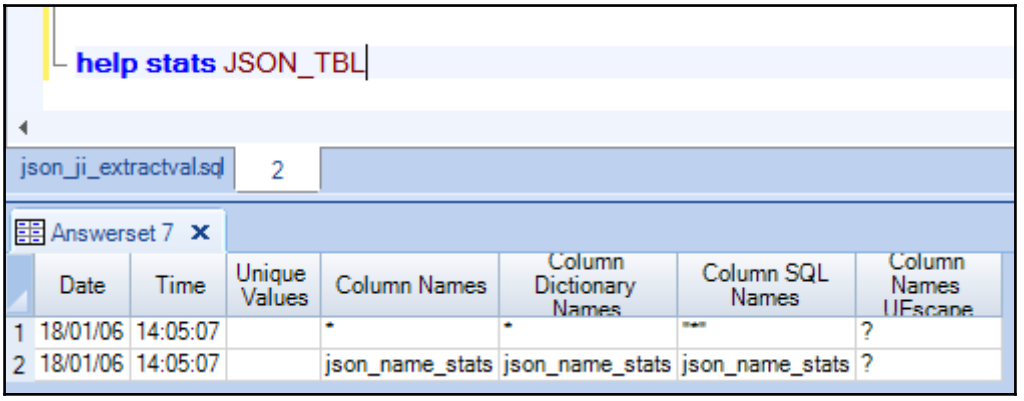
1) First, we do an all-AMPs **RETRIEVE** step from **DBC.TB1** by way of an **all-rows scan** with no residual conditions into **Spool 2** (all_amps), which is **redistributed** by the hash code of (**DBC.TB1.EMP_DEPT**) to all AMPs. Then we do a SORT to order **Spool 2** by row hash. The size of **Spool 2** is estimated with high confidence to be **5 rows** (155 bytes). The estimated time for this step is 0.01 seconds.
2) Next, we do an all-AMPs **JOIN** step from **Spool 2** (Last Use) by way of an **all-rows scan**, which is joined to **DBC.TB2** by way of an **all-rows scan** with a condition of ("NOT (DBC.TB2.DEPT_ID IS NULL)"). **Spool 2** and **DBC.TB2** are joined using an inclusion **merge join**, with a join condition of ("(NOT (EMP_DEPT IS NULL)) AND (EMP_DEPT = DBC.TB2.DEPT_ID)"). The result goes into **Spool 1** (group_amps), which is **built locally** on the AMPs. The size of **Spool 1** is estimated with index join confidence to be **5 rows** (195 bytes). The estimated time for this step is 0.05 seconds.
3) Finally, we send out an END TRANSACTION step to all AMPs involved in processing the request.
-> The contents of **Spool 1** are sent back to the user as the result of statement 1. The total estimated time is 0.07 seconds.

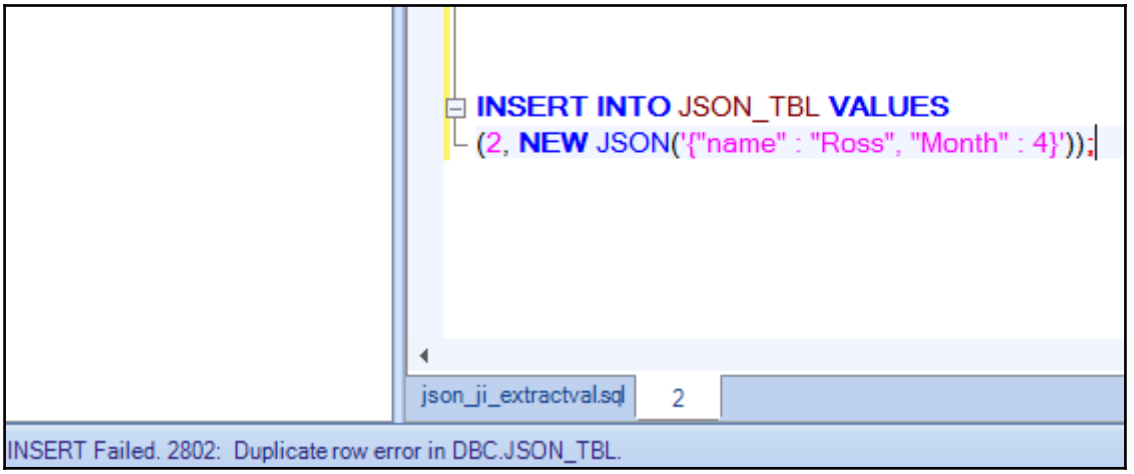

SEL TB1.* FROM EMP_TBL1 TB1
WHERE EXISTS /*Outer Query*/
(
SEL TB2.DEPT_ID FROM /*Inner Query*/
DEPT_TBL2 TB2
WHERE TB1.EMP_DEPT = TB2.DEPT_ID
) ;
1
2
INSERT Failed. 2802: Duplicate row error in DBC.DEPT_TBL2.

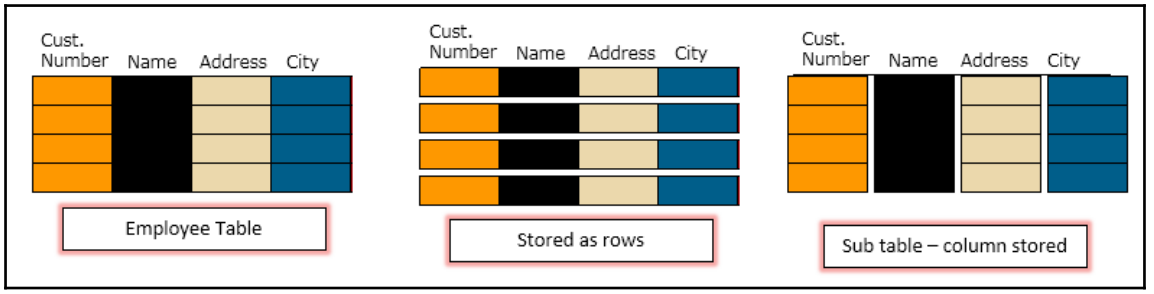

Query (local)
History
Answerset 1
CREATE VOLATILE TABLE JSON_TBL
(
EMP_id INTEGER, J1 JSON(1000)
)on commit preserve rows
;
INSERT INTO JSON_TBL VALUES
(2, NEW JSON('{"name" : "Roberts", "Month" : 1}'));

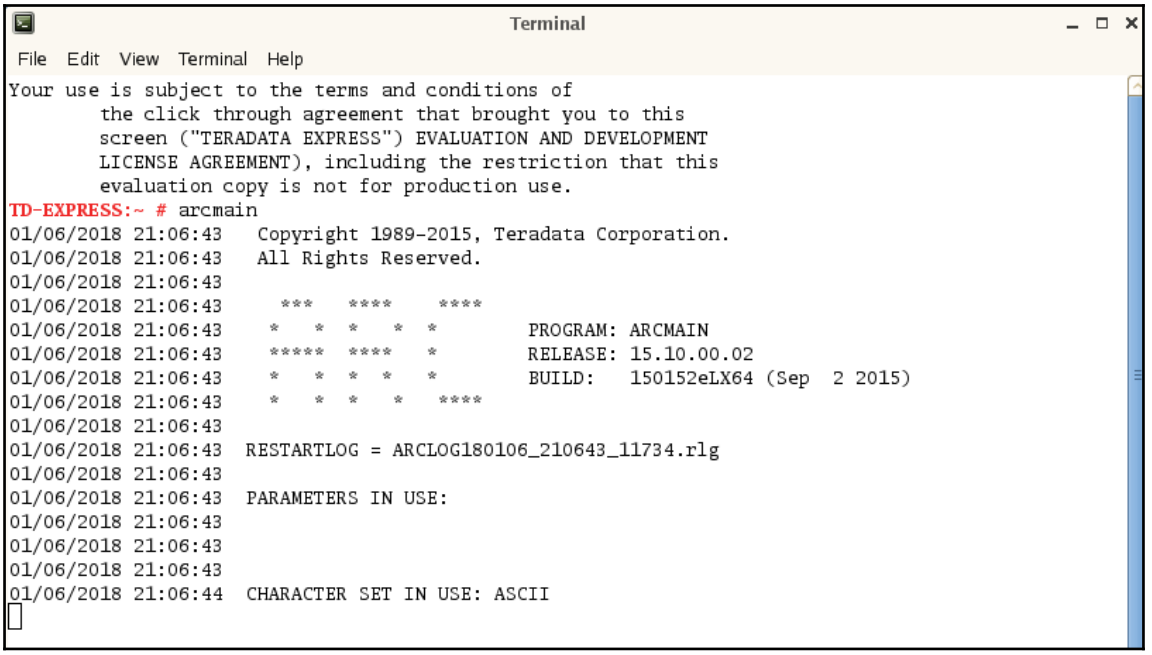

sel * from JSON_TBL
LOB Information
Column Name J1
File Name J1
File Type txt
Encoding UTF8 Unicode
Write Byte Order Mark [BOM]
Directory:
C:\Users\AK186023\Documents
OK
Cancel

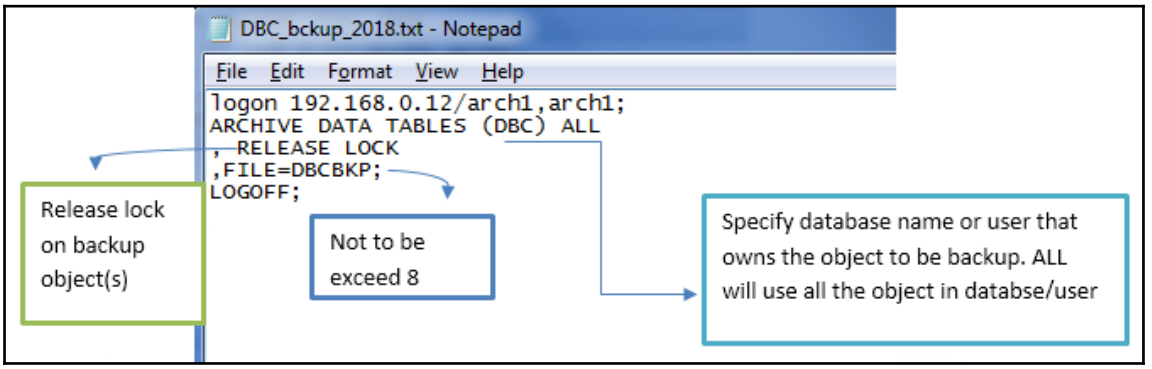

Query (local)
History
Answerset
EMP_id
J1
1 1 {"name" : "Cameron", "age" : 24}
2 2 {"name" : "Roberts", "Month" : 1}

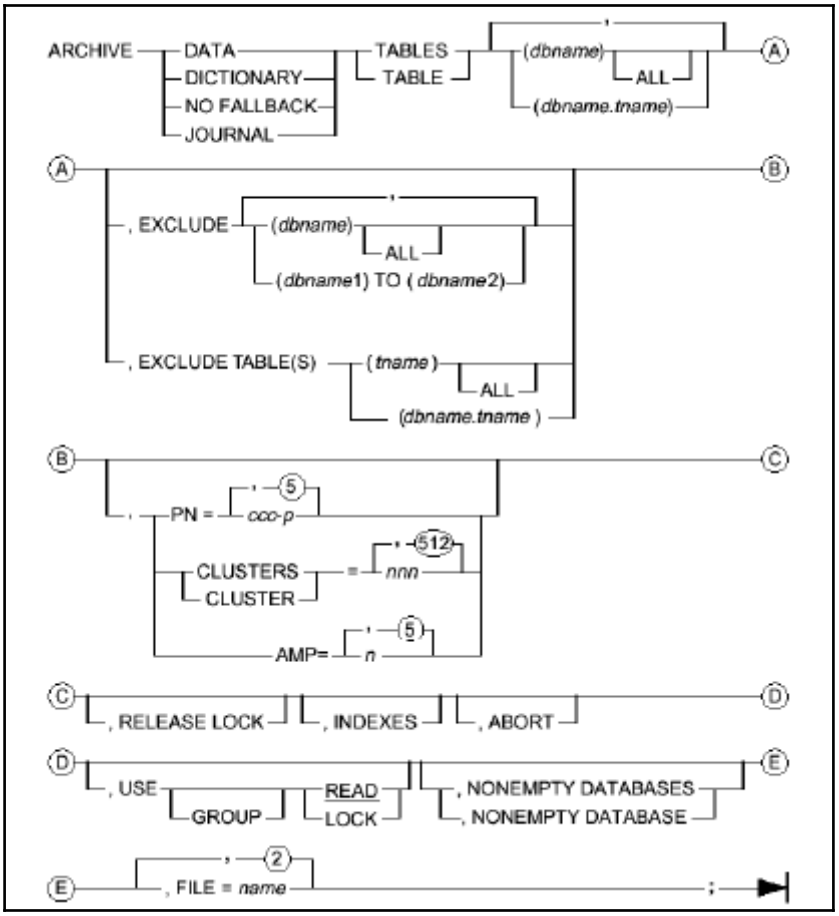

help stats JSON_TBL
json_ji_extractval.sql
2
Answerset 7
Date Time Unique Values Column Names Column Dictionary Names Column SQL Names Column Names UEscape
1 18/01/06 14:05:07 * * "*" ?
2 18/01/06 14:05:07 json_name_stats json_name_stats json_name_stats ?

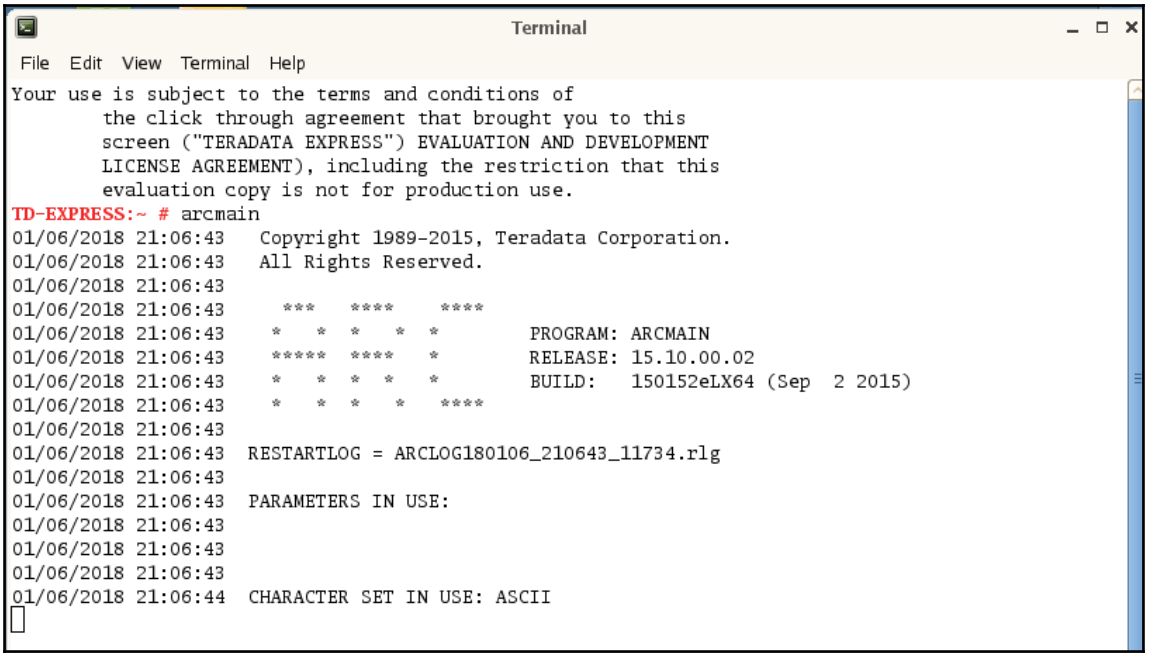

INSERT INTO JSON_TBL VALUES
(2, NEW JSON('{"name" : "Ross", "Month" : 4}'));
json_ji_extractval.sql
2
INSERT Failed. 2802: Duplicate row error in DBC.JSON_TBL.

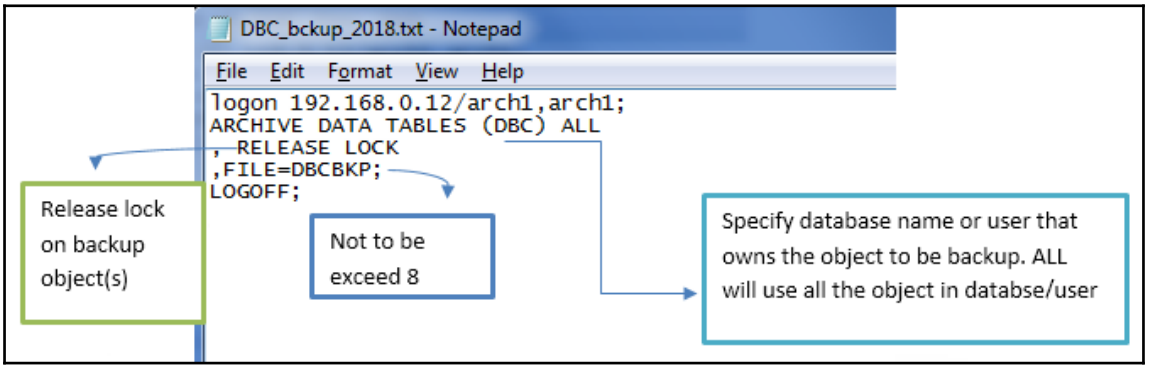

Cust. Number
Name
Address
City
Employee Table
Cust. Number
Name
Address
City
Stored as rows
Cust. Number
Name
Address
City
Sub table – column stored

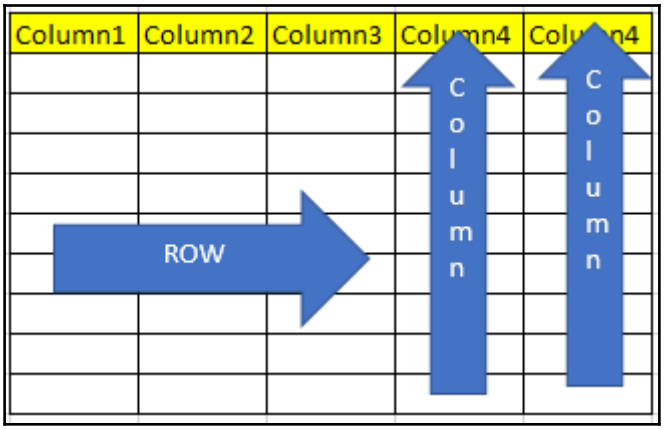

Terminal
File Edit View Terminal Help
Your use is subject to the terms and conditions of
the click through agreement that brought you to this
screen ("TERADATA EXPRESS") EVALUATION AND DEVELOPMENT
LICENSE AGREEMENT), including the restriction that this
evaluation copy is not for production use.
TD-EXPRESS:~ # arcmain
01/06/2018 21:06:43 Copyright 1989-2015, Teradata Corporation.
01/06/2018 21:06:43 All Rights Reserved.
01/06/2018 21:06:43
01/06/2018 21:06:43 *** **** ****
01/06/2018 21:06:43 * * * * * PROGRAM: ARCMAIN
01/06/2018 21:06:43 ***** **** * RELEASE: 15.10.00.02
01/06/2018 21:06:43 * * * * * BUILD: 150152eLX64 (Sep 2 2015)
01/06/2018 21:06:43 * * * * ****
01/06/2018 21:06:43
01/06/2018 21:06:43 RESTARTLOG = ARCLOG180106_210643_11734.rlg
01/06/2018 21:06:43
01/06/2018 21:06:43 PARAMETERS IN USE:
01/06/2018 21:06:43
01/06/2018 21:06:43
01/06/2018 21:06:43
01/06/2018 21:06:44 CHARACTER SET IN USE: ASCII


DBC_bckup_2018.txt - Notepad
File Edit Format View Help
logon 192.168.0.12/arch1,arch1;
ARCHIVE DATA TABLES (DBC) ALL
,RELEASE LOCK
,FILE=DBCBKP;
LOGOFF;
Release lock on backup object(s)
Not to be exceed 8
Specify database name or user that owns the object to be backup. ALL will use all the object in databse/user

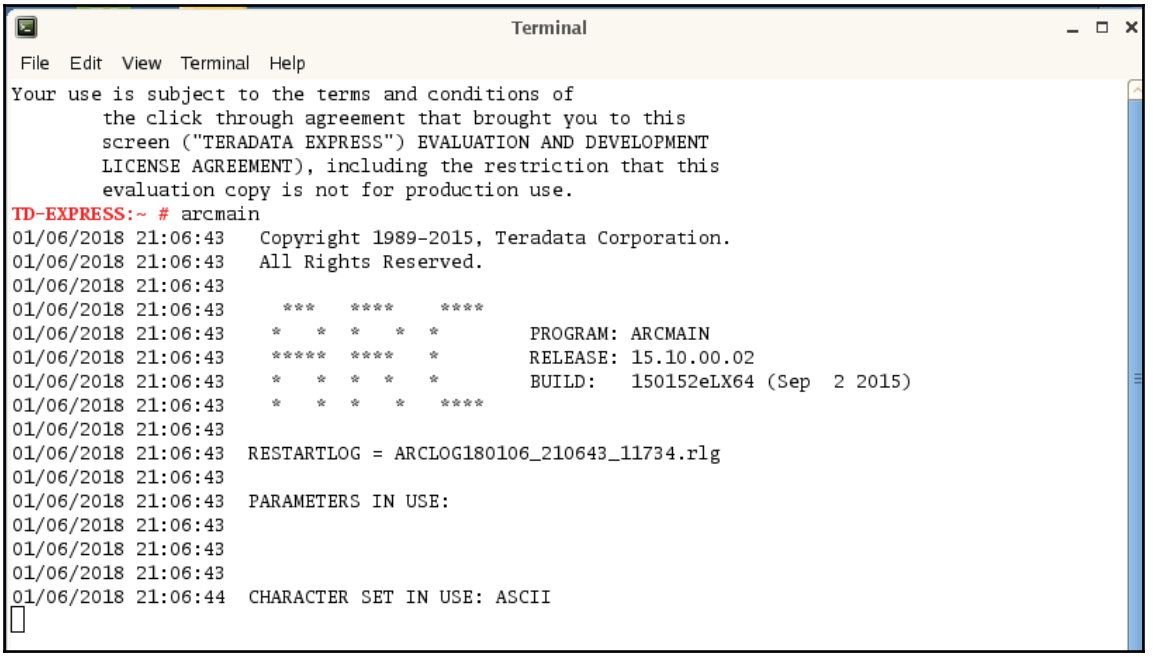

ARCHIVE
DATA
DICTIONARY
NO FALLBACK
JOURNAL
TABLES
TABLE
(dbname)
ALL
(dbname.tname)
A
B
, EXCLUDE
(dbname)
ALL
(dbname1) TO (dbname2)
, EXCLUDE TABLE(S)
(tname)
ALL
(dbname.tname)
C
, PN = ccc-p
5
CLUSTERS
CLUSTER
= nnn
512
AMP= n
5
, RELEASE LOCK
, INDEXES
, ABORT
D
, USE
GROUP
READ
LOCK
, NONEMPTY DATABASES
, NONEMPTY DATABASE
E
, FILE = name
2
;


Terminal
File Edit View Terminal Help
Your use is subject to the terms and conditions of
the click through agreement that brought you to this
screen ("TERADATA EXPRESS") EVALUATION AND DEVELOPMENT
LICENSE AGREEMENT), including the restriction that this
evaluation copy is not for production use.
TD-EXPRESS:~ # arcmain
01/06/2018 21:06:43 Copyright 1989-2015, Teradata Corporation.
01/06/2018 21:06:43 All Rights Reserved.
01/06/2018 21:06:43
01/06/2018 21:06:43 *** **** ****
01/06/2018 21:06:43 * * * * * PROGRAM: ARCMAIN
01/06/2018 21:06:43 ***** **** * RELEASE: 15.10.00.02
01/06/2018 21:06:43 * * * * * BUILD: 150152eLX64 (Sep 2 2015)
01/06/2018 21:06:43 * * * * ****
01/06/2018 21:06:43
01/06/2018 21:06:43 RESTARTLOG = ARCLOG180106_210643_11734.rlg
01/06/2018 21:06:43
01/06/2018 21:06:43 PARAMETERS IN USE:
01/06/2018 21:06:43
01/06/2018 21:06:43
01/06/2018 21:06:43
01/06/2018 21:06:44 CHARACTER SET IN USE: ASCII


DBC_bckup_2018.txt - Notepad
File Edit Format View Help
logon 192.168.0.12/arch1,arch1;
ARCHIVE DATA TABLES (DBC) ALL
,RELEASE LOCK
,FILE=DBCBKP;
LOGOFF;
Release lock on backup object(s)
Not to be exceed 8
Specify database name or user that owns the object to be backup. ALL will use all the object in databse/user




```
CREATE TABLE cookbook_td.EMP_SAL_PPI
(
id INT,
Sal int,
dob date,
o_total int
) primary index( id)
PARTITION BY RANGE_N (dob BETWEEN DATE '2017-01-01'
  AND DATE '2017-12-01' EACH INTERVAL '1' DAY);


INSERT into cookbook_td.EMP_SAL_PPI VALUES (1001,2500,'2017-09-01',890);
INSERT into cookbook_td.EMP_SAL_PPI VALUES (1002,5500,'2017-09-10',890);
INSERT into cookbook_td.EMP_SAL_PPI VALUES (1003,500,'2017-09-02',890);
INSERT into cookbook_td.EMP_SAL_PPI VALUES (1004,54500,'2017-09-05',890);
INSERT into cookbook_td.EMP_SAL_PPI VALUES (1005,900,'2017-09-23',890);
INSERT into cookbook_td.EMP_SAL_PPI VALUES (1006,8900,'2017-08-03',890);
INSERT into cookbook_td.EMP_SAL_PPI VALUES (1007,8200,'2017-08-21',890);
INSERT into cookbook_td.EMP_SAL_PPI VALUES (1008,6200,'2017-08-06',890);
INSERT into cookbook_td.EMP_SAL_PPI VALUES (1009,2300,'2017-08-12',890);
INSERT into cookbook_td.EMP_SAL_PPI VALUES (1010,9200,'2017-08-15',890);
```


Terminal
File Edit View Terminal Help
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the click through agreement that brought you to this
screen ("TERADATA EXPRESS") EVALUATION AND DEVELOPMENT
LICENSE AGREEMENT), including the restriction that this
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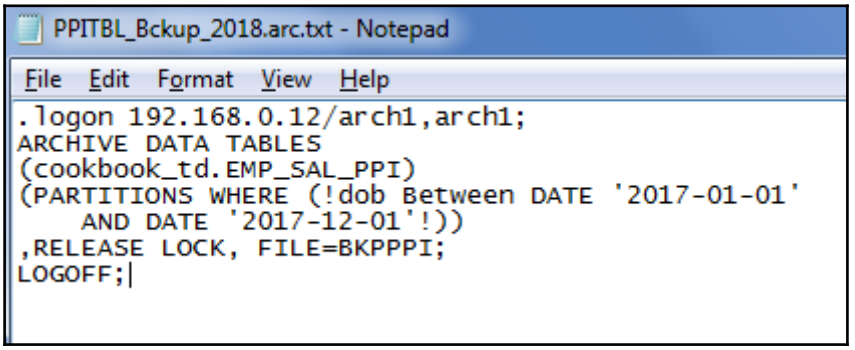
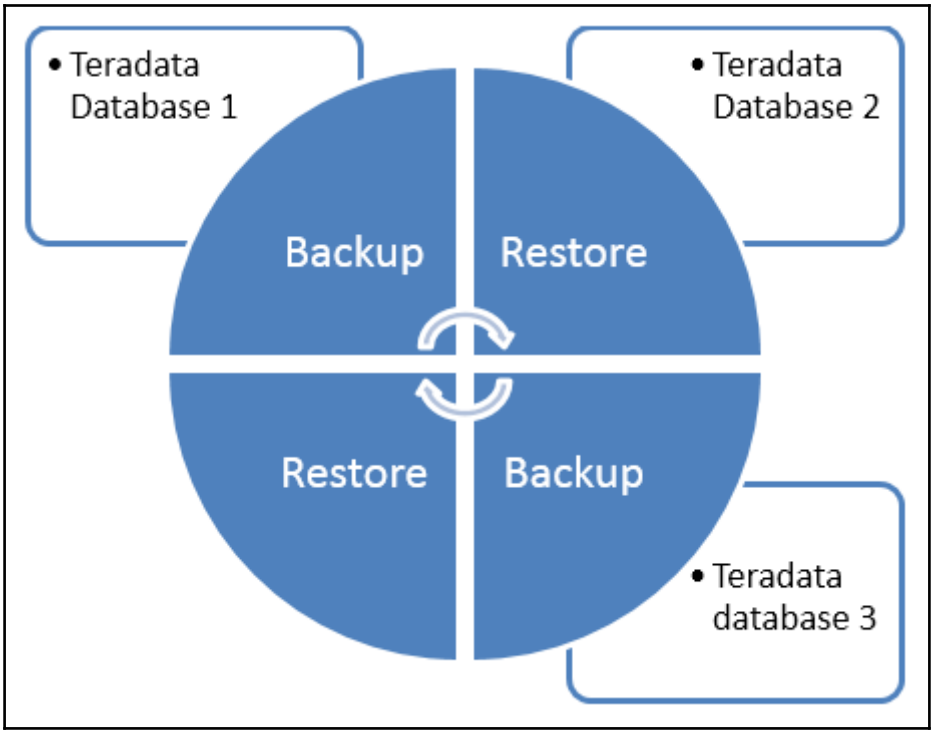
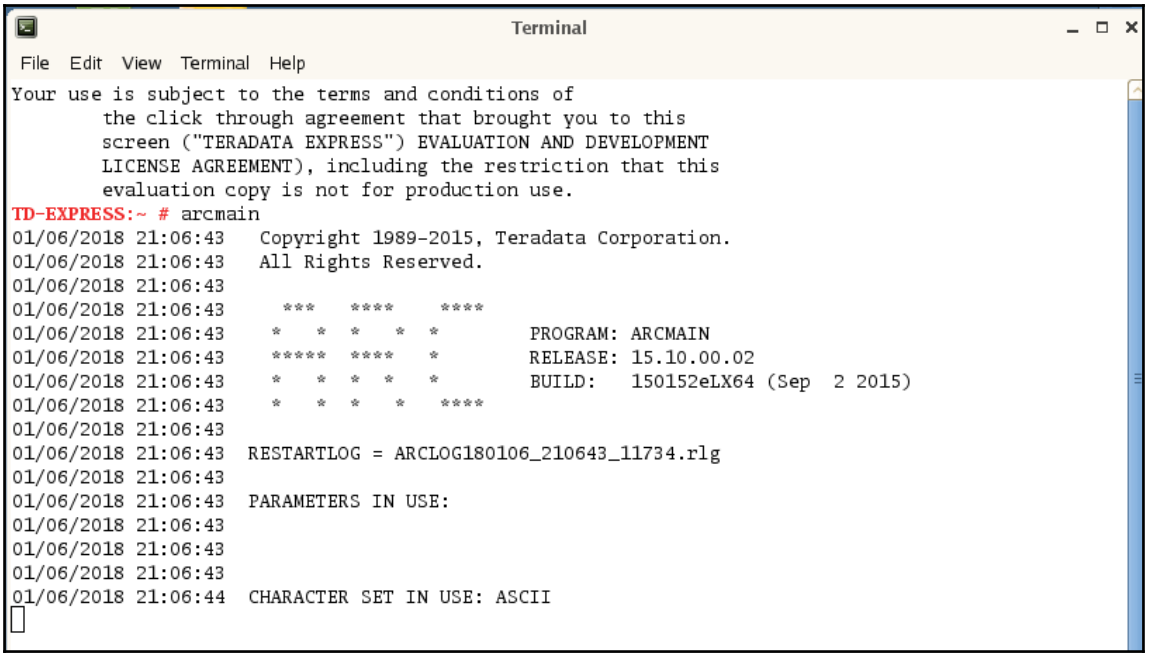
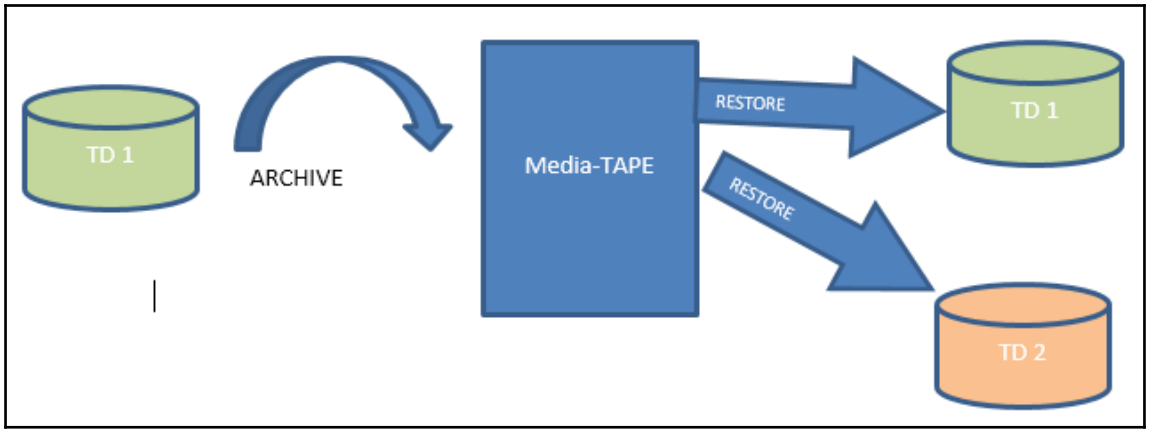
TD-EXPRESS:~ # arcmain
01/06/2018 21:06:43 Copyright 1989-2015, Teradata Corporation.
01/06/2018 21:06:43 All Rights Reserved.
01/06/2018 21:06:43
01/06/2018 21:06:43 *** **** ****
01/06/2018 21:06:43 * * * * * PROGRAM: ARCMAIN
01/06/2018 21:06:43 ***** **** * RELEASE: 15.10.00.02
01/06/2018 21:06:43 * * * * * BUILD: 150152eLX64 (Sep 2 2015)
01/06/2018 21:06:43 * * * * ****
01/06/2018 21:06:43
01/06/2018 21:06:43 RESTARTLOG = ARCLOG180106_210643_11734.rlg
01/06/2018 21:06:43
01/06/2018 21:06:43 PARAMETERS IN USE:
01/06/2018 21:06:43
01/06/2018 21:06:43
01/06/2018 21:06:43
01/06/2018 21:06:44 CHARACTER SET IN USE: ASCII

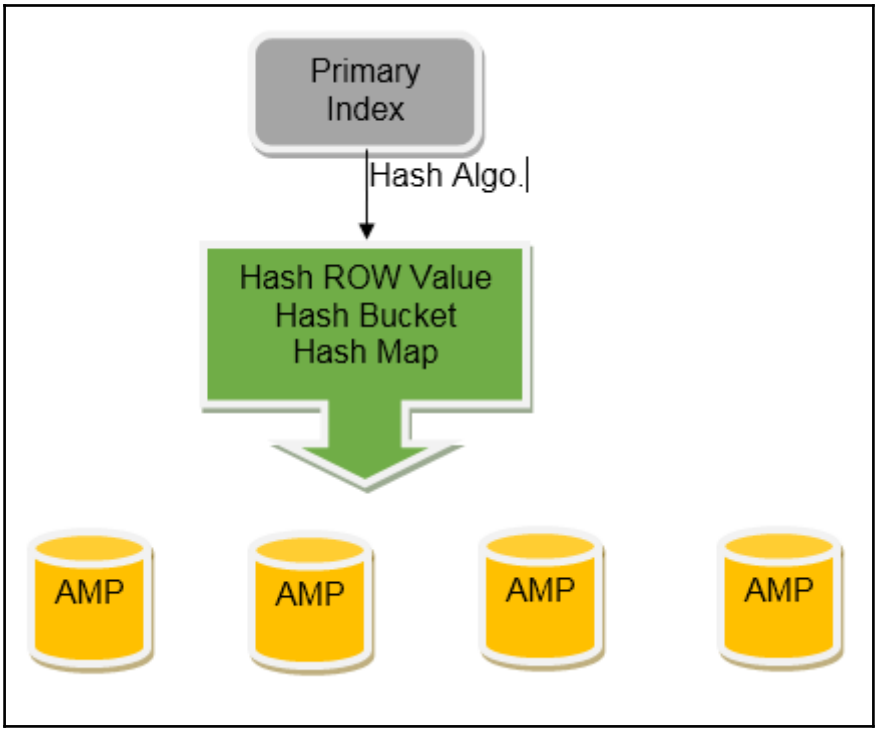

PPITBL_Bckup_2018.arc.txt - Notepad
File Edit Format View Help
.logon 192.168.0.12/arch1,arch1;
ARCHIVE DATA TABLES
(cookbook_td.EMP_SAL_PPI)
(PARTITIONS WHERE (!dob Between DATE '2017-01-01'
AND DATE '2017-12-01'!))
,RELEASE LOCK, FILE=BKPPPI;
LOGOFF;

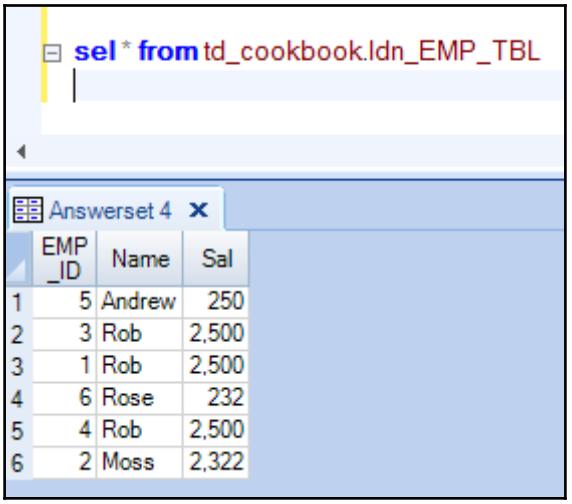

• Teradata Database 1
• Teradata Database 2
Backup
Restore
Restore
Backup
• Teradata database 3




```
restore data tables (restore_db)
, release lock
, file = RETBL;
UTILITY EVENT NUMBER - 69
LOGGED ON 8 SESSIONS
STARTING TO RESTORE DATABASE "restore_db"
DICTIONARY RESTORE COMPLETED
"EMP" - 16 BYTES, 2 ROWS RESTORED
"EMP_SAL" - 20 BYTES, 4 ROWS RESTORED

"restore_db"- LOCK RELEASED

STATEMENT COMPLETED


logoff;
LOGGED OFF 8 SESSIONS
```


TD 1
ARCHIVE
Media-TAPE
RESTORE
TD 1
RESTORE
TD 2


Primary Index
Hash Algo.
Hash ROW Value
Hash Bucket
Hash Map
AMP
AMP
AMP
AMP



```
sel * from td_cookbook.ldn_EMP_TBL
```

Answerset 4

	EMP_ID	Name	Sal
1	5	Andrew	250
2	3	Rob	2,500
3	1	Rob	2,500
4	6	Rose	232
5	4	Rob	2,500
6	2	Moss	2,322

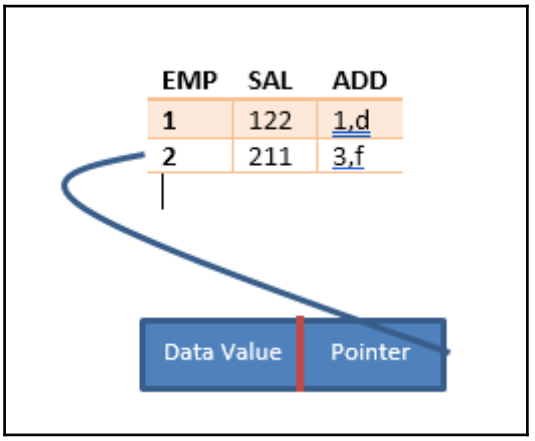
```
CREATE SET TABLE DBC.idcol ,FALLBACK ,
    NO BEFORE JOURNAL,
    NO AFTER JOURNAL,
    CHECKSUM = DEFAULT,
    DEFAULT MERGEBLOCKRATIO
    (
     TableId BYTE(6) NOT NULL,
     DatabaseId BYTE(4) NOT NULL,
     AvailValue DECIMAL(18,0) FORMAT '----,---,---,---,---,--9' NOT NULL,
     StartValue DECIMAL(18,0) FORMAT '----,---,---,---,---,--9' NOT NULL,
     MinValue DECIMAL(18,0) FORMAT '----,---,---,---,---,--9' NOT NULL,
     MaxValue DECIMAL(18,0) FORMAT '----,---,---,---,---,--9' NOT NULL,
     Increment INTEGER FORMAT '--,---,---,--9' NOT NULL,
     Cyc CHAR(1) CHARACTER SET LATIN UPPERCASE NOT CASESPECIFIC NOT NULL)
UNIQUE PRIMARY INDEX ( TableId );
```

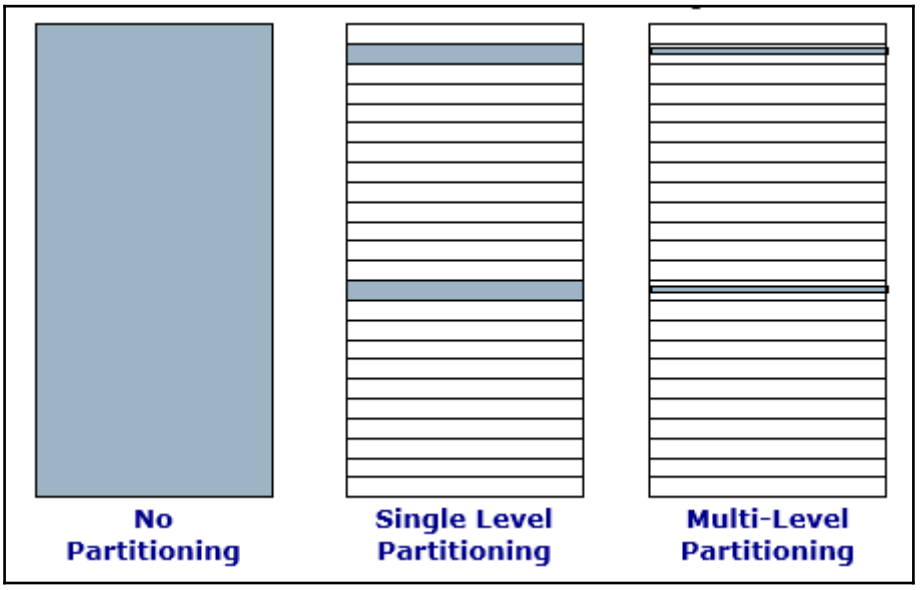
```
sel * from DBC.idcol
```

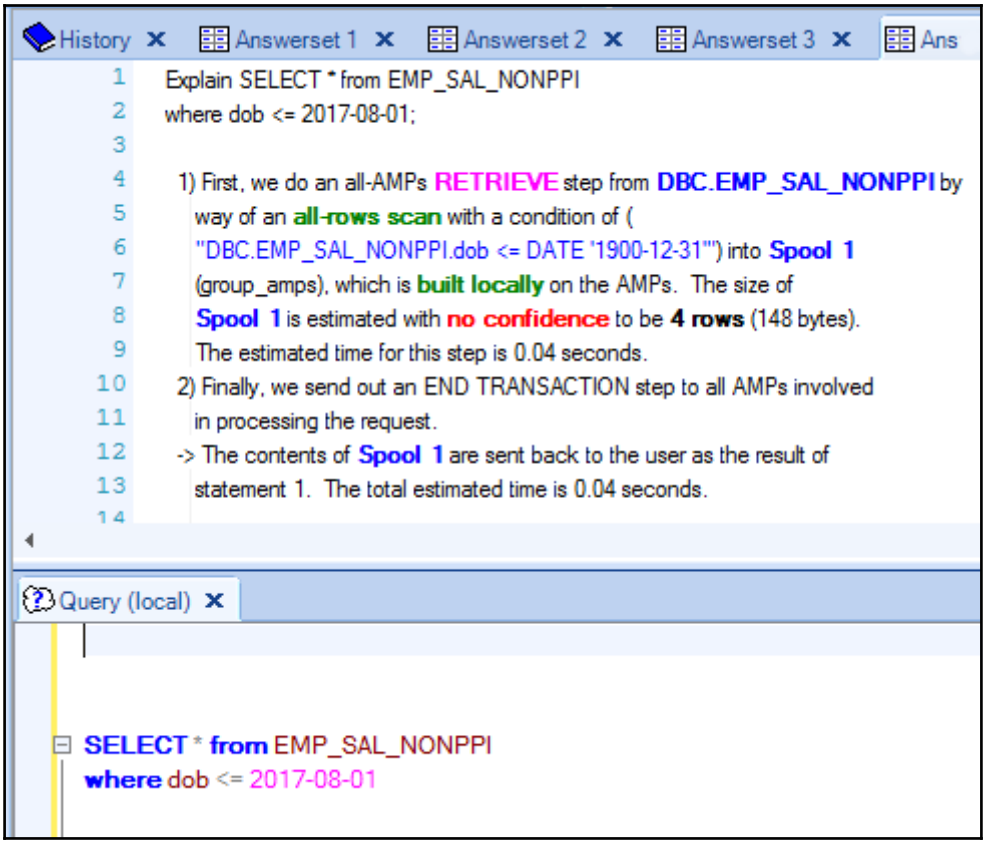
Answerset 6

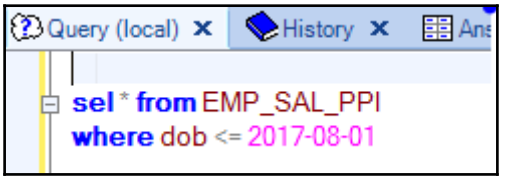
	TableId	DatabaseId	AvailValue	StartValue	MinValue	MaxValue	Increment	Cyc
1	00-00-02-01-00-00	00-00-01-00	1	1	1	2,147,483,647	1	Y
2	00-00-17-01-00-00	00-00-01-00	1	1	1	2,147,483,647	1	Y
3	00-00-72-0B-00-00	00-00-02-04	10,001	1	0	1,000,000	1	N
4	00-00-A3-09-00-00	00-00-F4-03	1	1	-999,999,999,999,999,999	999,999,999,999,999,999	1	N
5	00-00-A5-09-00-00	00-00-F4-03	1	1	-999,999,999,999,999,999	999,999,999,999,999,999	1	N
6	00-00-AA-09-00-00	00-00-F4-03	1	1	-999,999,999,999,999,999	999,999,999,999,999,999	1	N
7	00-00-EF-09-00-00	00-00-F5-03	1	1	-999,999,999,999,999,999	999,999,999,999,999,999	1	Y

Chapter 4: All about Indexes






History
Answerset 1
Answerset 2
Answerset 3
Ans
1 Explain SELECT * from EMP_SAL_NONPPI
2 where dob <= 2017-08-01;
3
4 1) First, we do an all-AMPs RETRIEVE step from DBC.EMP_SAL_NONPPI by
5 way of an all-rows scan with a condition of (
6 "DBC.EMP_SAL_NONPPI.dob <= DATE '1900-12-31'") into Spool 1
7 (group_amps), which is built locally on the AMPs. The size of
8 Spool 1 is estimated with no confidence to be 4 rows (148 bytes).
9 The estimated time for this step is 0.04 seconds.
10 2) Finally, we send out an END TRANSACTION step to all AMPs involved
11 in processing the request.
12 -> The contents of Spool 1 are sent back to the user as the result of
13 statement 1. The total estimated time is 0.04 seconds.
14
Query (local)
SELECT * from EMP_SAL_NONPPI
where dob <= 2017-08-01


Query (local)
History
Ans
sel * from EMP_SAL_PPI
where dob <= 2017-08-01

```
1) First, we do an all-AMPs RETRIEVE step from a single partition of
   SYSDBA.EMP_SAL_PPI with a condition of ("SYSDBA.EMP_SAL_PPI.dob =
   DATE '2017-08-01'") with a residual condition of (
   "SYSDBA.EMP_SAL_PPI.dob = DATE '2017-08-01'") into Spool 1
   (group_amps), which is built locally on the AMPs.  The size of
   Spool 1 is estimated with no confidence to be 1 row (37 bytes).
   The estimated time for this step is 0.04 seconds.
-> The contents of Spool 1 are sent back to the user as the result of
   statement 1.  The total estimated time is 0.04 seconds.
```

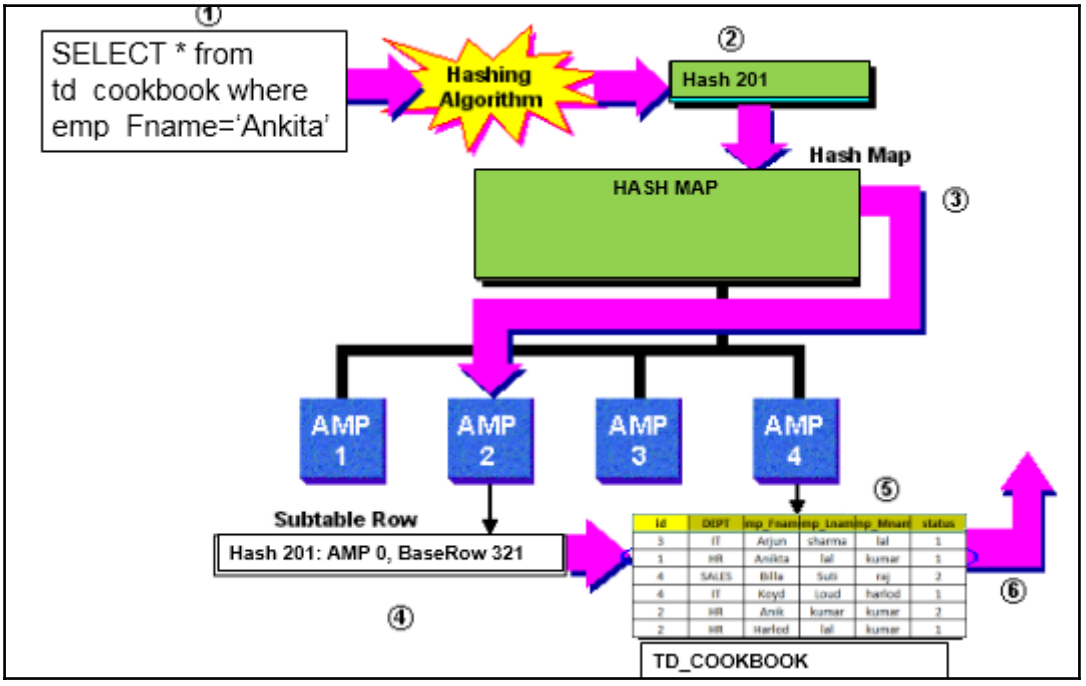
```
sel id,dept,emp_Fname,emp_Lname,status  from td_cookbook.EMP_SAL
where emp_Fname="%Anikta%"
;
```

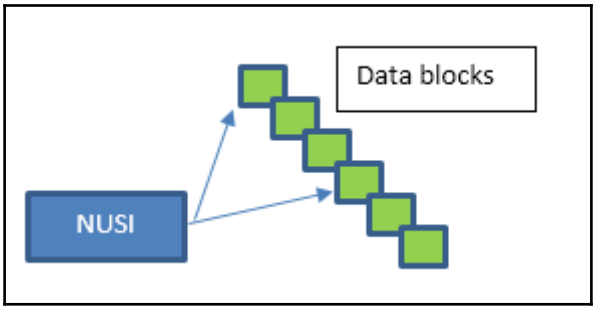
2 3 4

Answerset 9 | Answerset 10 | Answerset 12 | Answerset 13 | Ans

```
3   where emp_Fname="%Anikta%";
4
5     1) First, we lock td_cookbook.EMP_SAL for read on a reserved RowHash
6        to prevent global deadlock.
7     2) Next, we lock td_cookbook.EMP_SAL for read.
8     3) We do an all-AMPs RETRIEVE step from td_cookbook.EMP_SAL by way of
9        an all-rows scan with a condition of (
10       "td_cookbook.EMP_SAL.emp_Fname = "%Anikta%"") into Spool 1
11       (group_amps), which is built locally on the AMPs.  The size of
12       Spool 1 is estimated with no confidence to be 2 rows (118 bytes).
13       The estimated time for this step is 0.04 seconds.
14    4) Finally, we send out an END TRANSACTION step to all AMPs involved
15       in processing the request.
```

Teradata uses...	To...
Primary Index (PI)	satisfy an equality on an IN condition in a join.
Unique Primary Index (UPI)	ensure fastest access to table data.
Non-Unique Primary Index (NUPI)	• Perform a single-disk row selection or join process • Avoid sorting or redistributing rows.
Unique Secondary Index (USI)	process requests that employ equality constraints.
UPIs to match values in one table with index values in another	ensure optimal join performance.
information from a single AMP	estimate the cost of using an index when statistics are not available. This assumes an even distribution of index values (an uneven distribution affects performance).
index based on more than one column (a composite index) only	process requests that employ equality constraints for all fields that comprise the index. You can define an index on a column that is also part of a multi-column index.





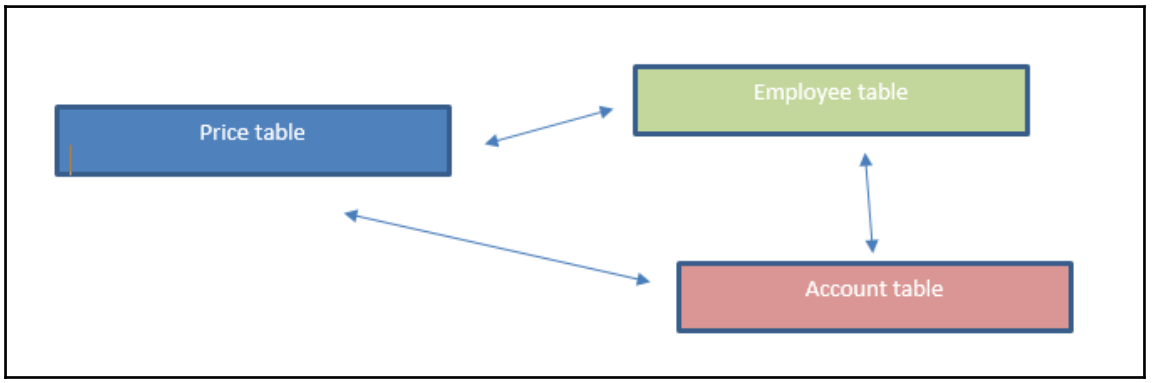
Query (local) History Answerset 1

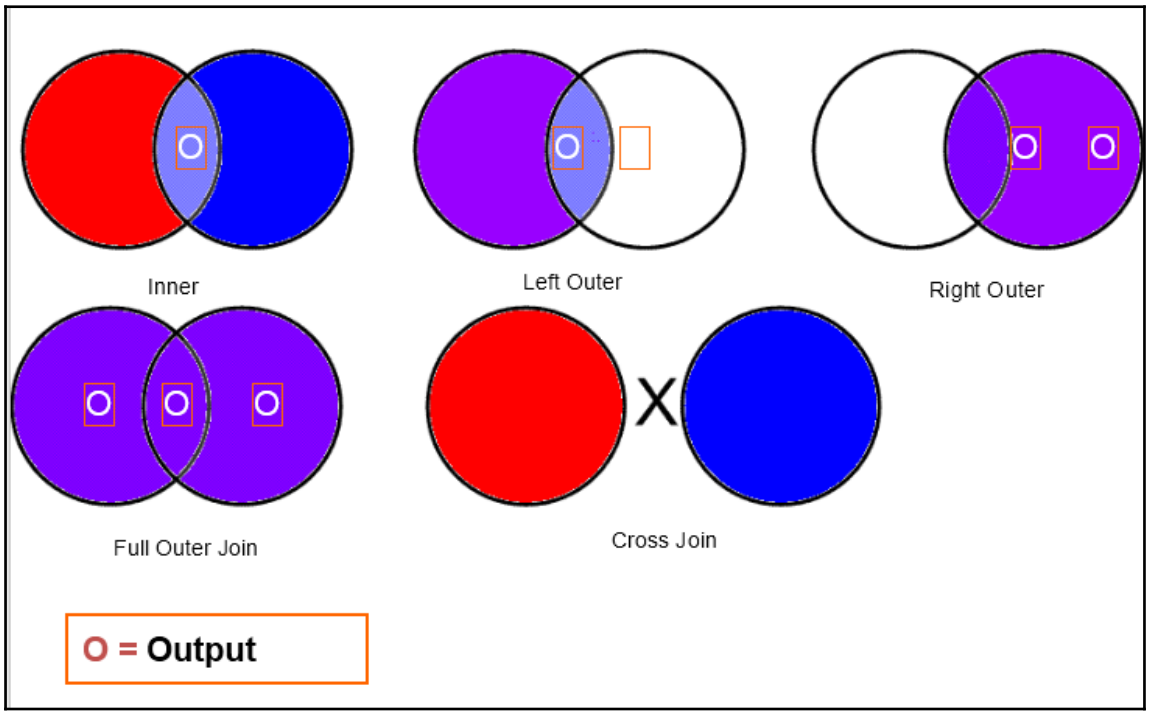
```
sel id,emp_Fname from td_cookbook.EMP_SAL
```

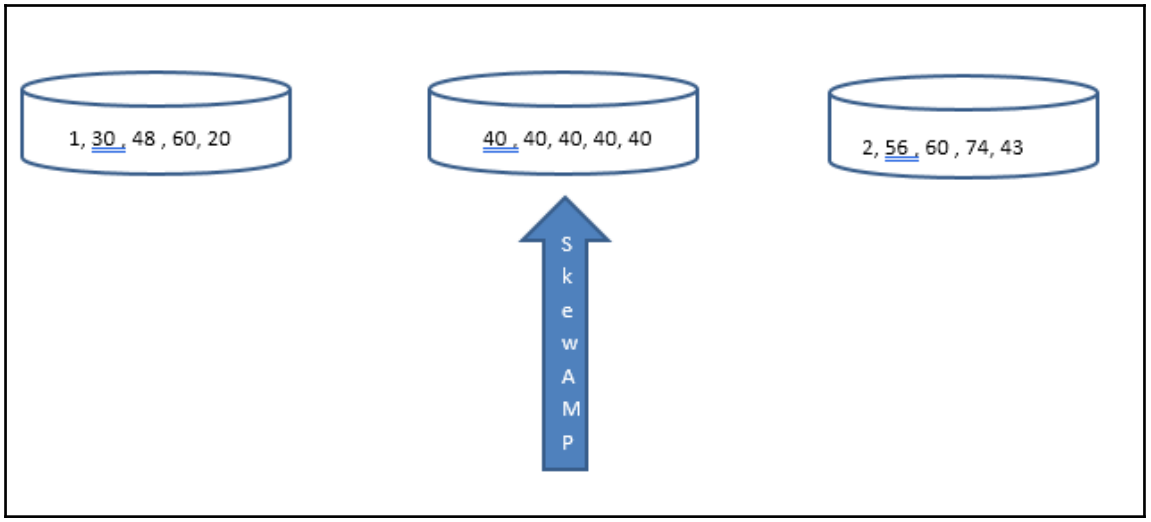
Query (local) History Answerset 1 Answerset 2 Answerset 3

```
Explain sel id,dept from td_cookbook.EMP_SAL;

  1) First, we lock td_cookbooK.EMP_HASH_INX for read on a reserved
    RowHash to prevent global deadlock.
  2) Next, we lock td_cookbooK.EMP_HASH_INX for read.
  3) We do an all-AMPs RETRIEVE step from td_cookbooK.EMP_HASH_
    way of an all-rows scan with no residual conditions into Spool 1
    (group_amps), which is built locally on the AMPs.  The size of
    Spool 1 is estimated with high confidence to be 6 rows (210 bytes).
    The estimated time for this step is 0.04 seconds.
  4) Finally, we send out an END TRANSACTION step to all AMPs involved
    in processing the request.
-> The contents of Spool 1 are sent back to the user as the result of
    statement 1.  The total estimated time is 0.04 seconds.
```

Chapter 5: Mixing Strategies – Joining of Tables





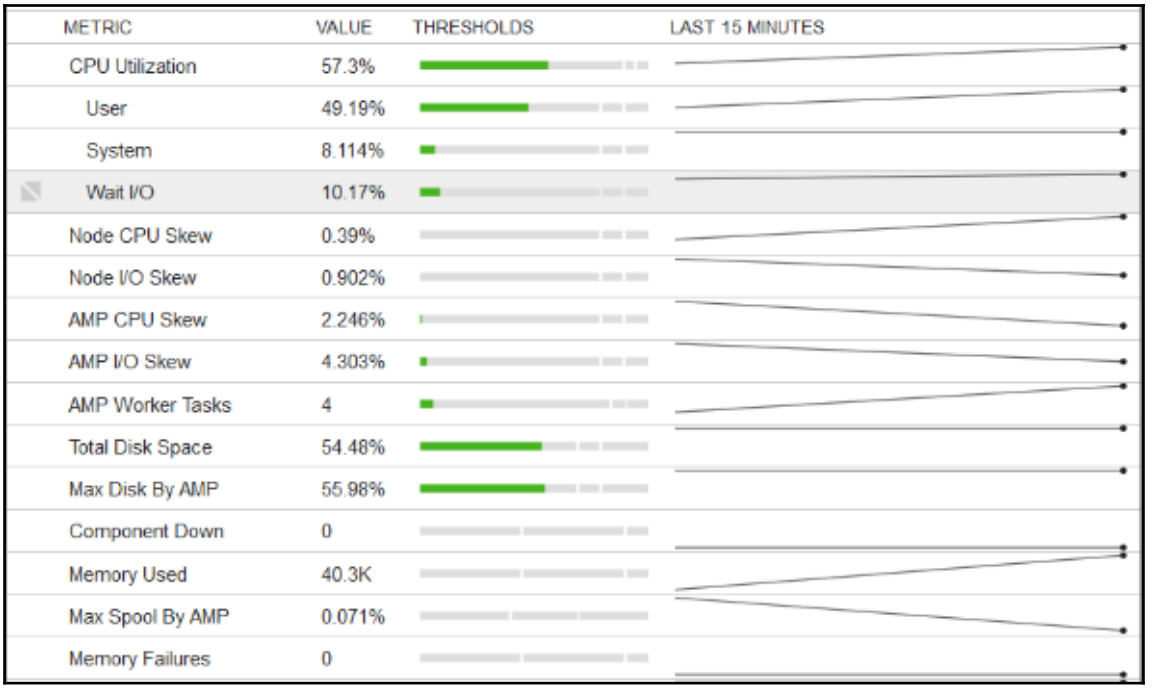


	td_cookbook.A_with_skew		td_cookbook.B_with_nonskew	
Column1	**Column2**	**Column3**	**cust_id**	**Sal**
cust_id	Cust_name	City	1	2,000
?	Rakesh Jha	AJM	2	2,100
?	Tom A	CA	3	2,200
?	Namcie R	IN	4	2,400
?	Ab Kh	VIC	5	2,600
?	Man Jav	PUN	6	2,600
?	Rajesj Jav	MUM		
?	Donald T	NY		
?	Erica Sven	MS		
?	Holly W	TS		
2	Mnai W	BHK		
3	Raji W	HAD		
4	Raji W	HAD		

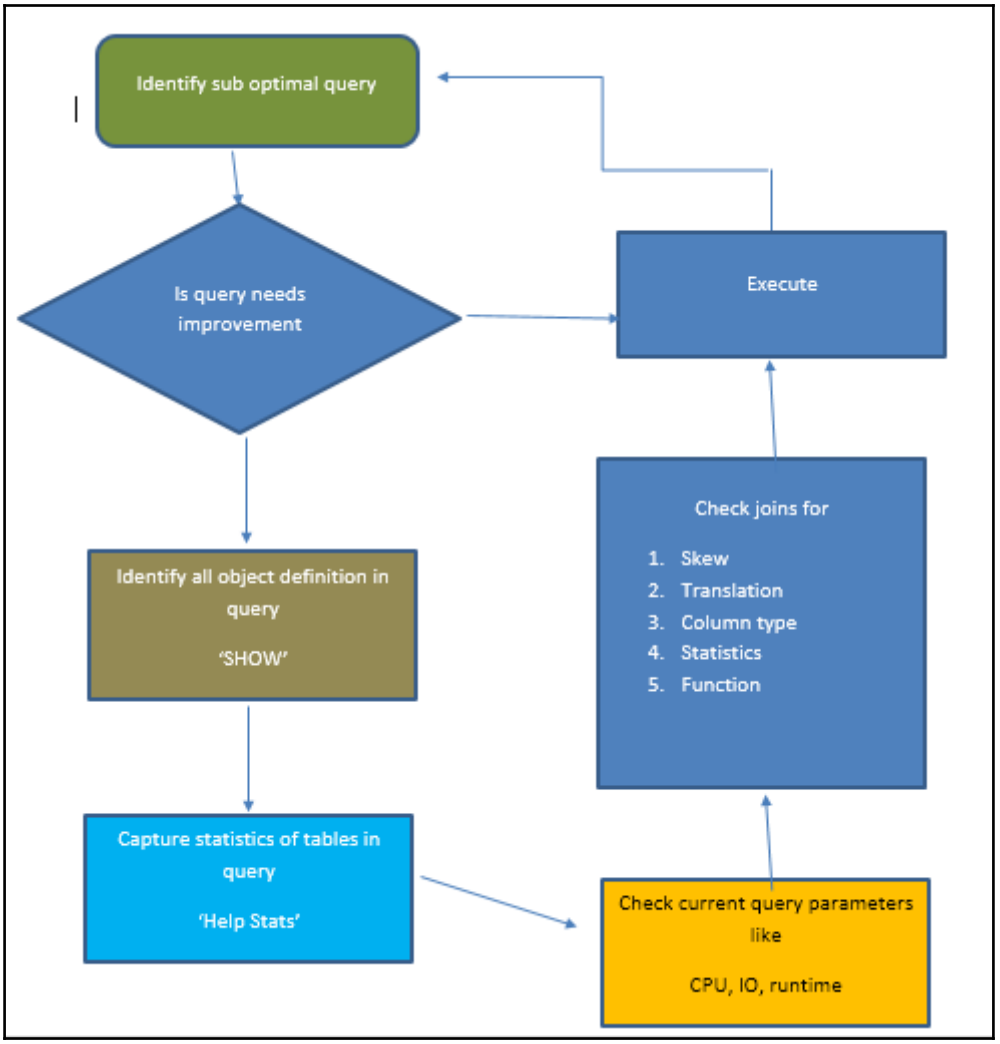
CUST_ID	Count(*)
?	9
2	1
4	1
3	1

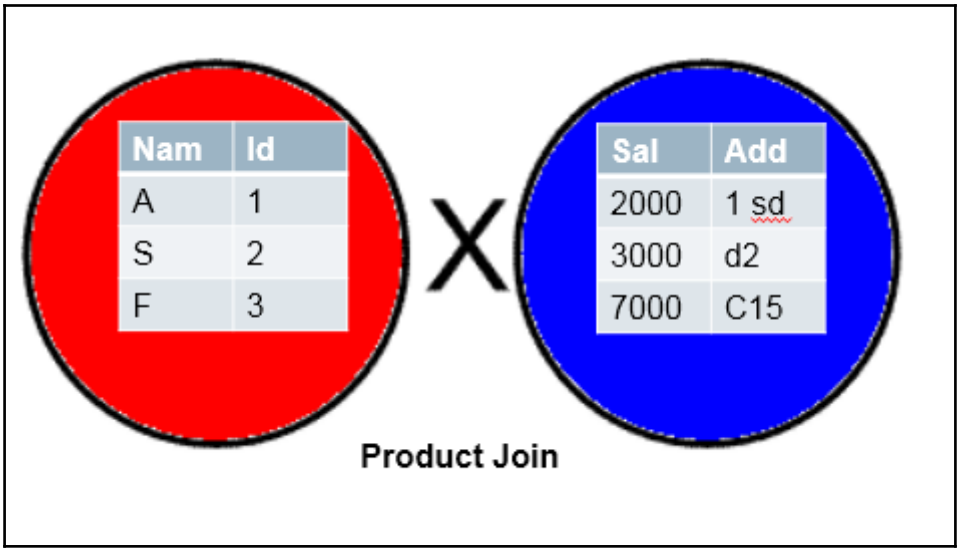
CUST_ID	Count(*)
1	1
4	1
2	1
6	1
3	1
5	1

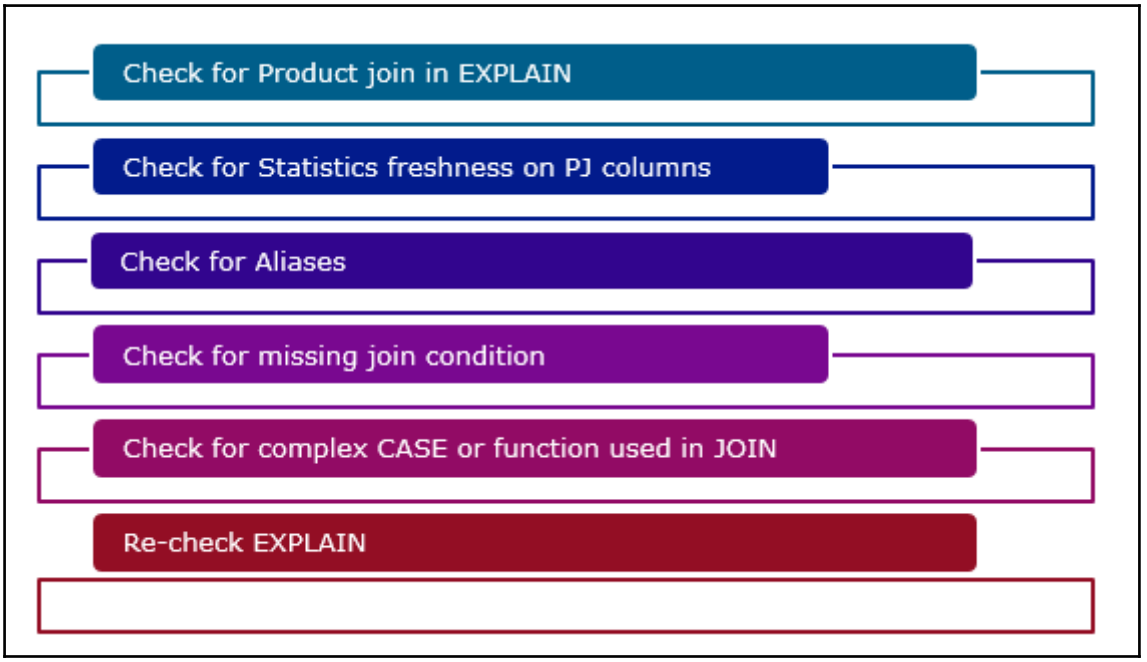
	td_cookbook.A_with_skew	
Column1	**Column2**	**Column3**
cust_id	Cust_name	City
-2	Rakesh Jha	AJM
-3	Tom A	CA
-4	Namcie R	IN

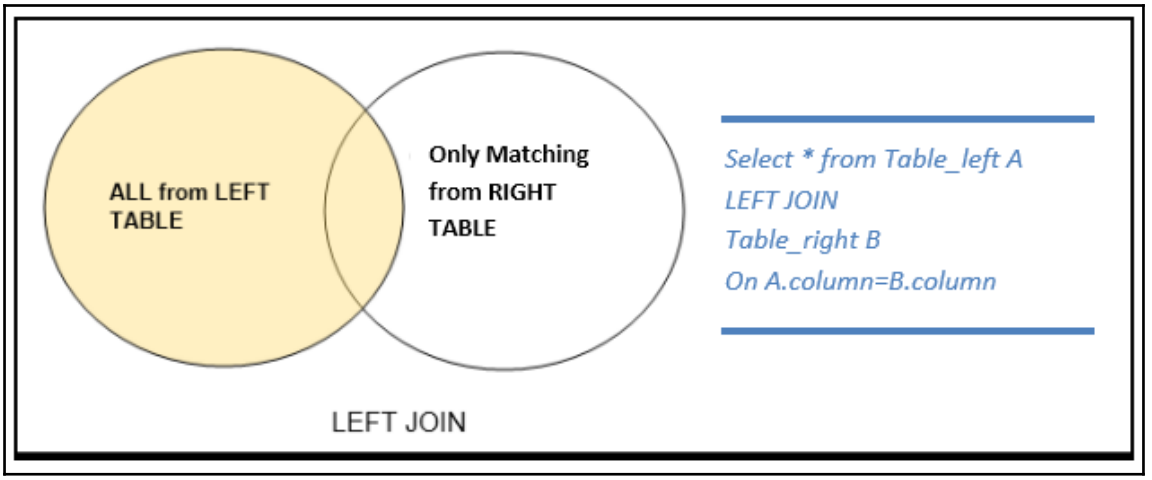


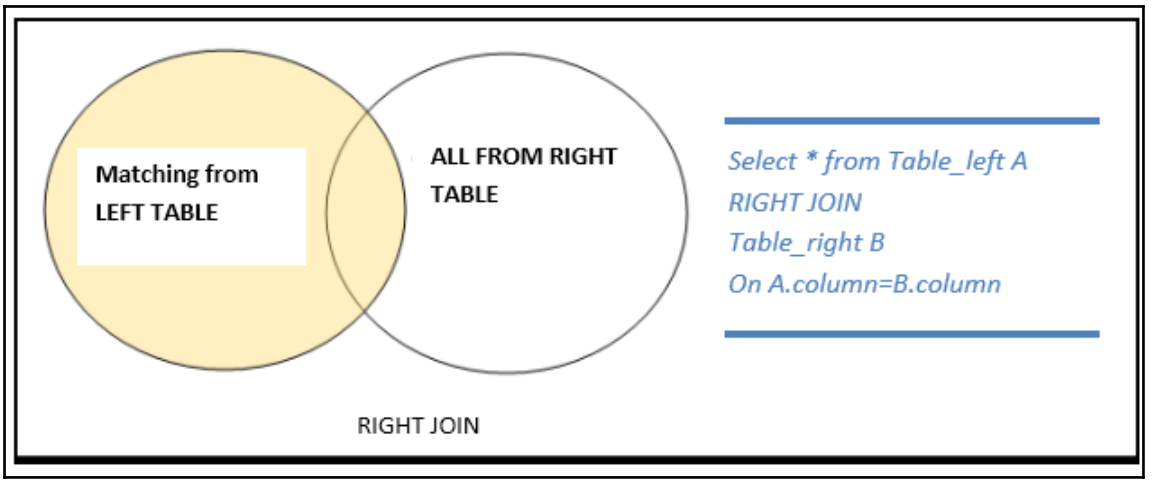
METRIC	VALUE	THRESHOLDS	LAST 15 MINUTES
CPU Utilization	57.3%		
User	49.19%		
System	8.114%		
Wait I/O	10.17%		
Node CPU Skew	0.39%		
Node I/O Skew	0.902%		
AMP CPU Skew	2.246%		
AMP I/O Skew	4.303%		
AMP Worker Tasks	4		
Total Disk Space	54.48%		
Max Disk By AMP	55.98%		
Component Down	0		
Memory Used	40.3K		
Max Spool By AMP	0.071%		
Memory Failures	0		


Identify sub optimal query
Is query needs improvement
Execute
Check joins for
1. Skew
2. Translation
3. Column type
4. Statistics
5. Function
Identify all object definition in query
'SHOW'
Capture statistics of tables in query
'Help Stats'
Check current query parameters like
CPU, IO, runtime


Nam
Id
A
1
S
2
F
3
X
Sal
Add
2000
1 sd
3000
d2
7000
C15
Product Join

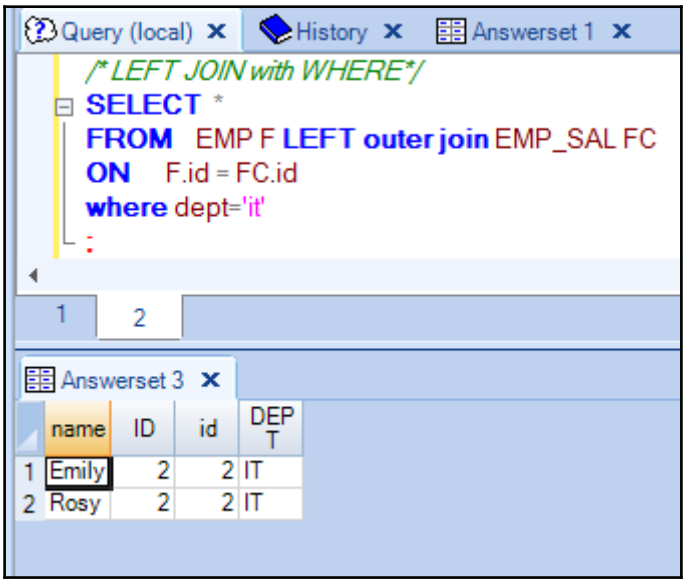

Check for Product join in EXPLAIN
Check for Statistics freshness on PJ columns
Check for Aliases
Check for missing join condition
Check for complex CASE or function used in JOIN
Re-check EXPLAIN





name	ID
Emily	2
Dave	?
Tom	1
Ross	3
Rosy	2
Mark	?

id	DEPT
3	CMP
1	HR
4	MGMT
2	IT



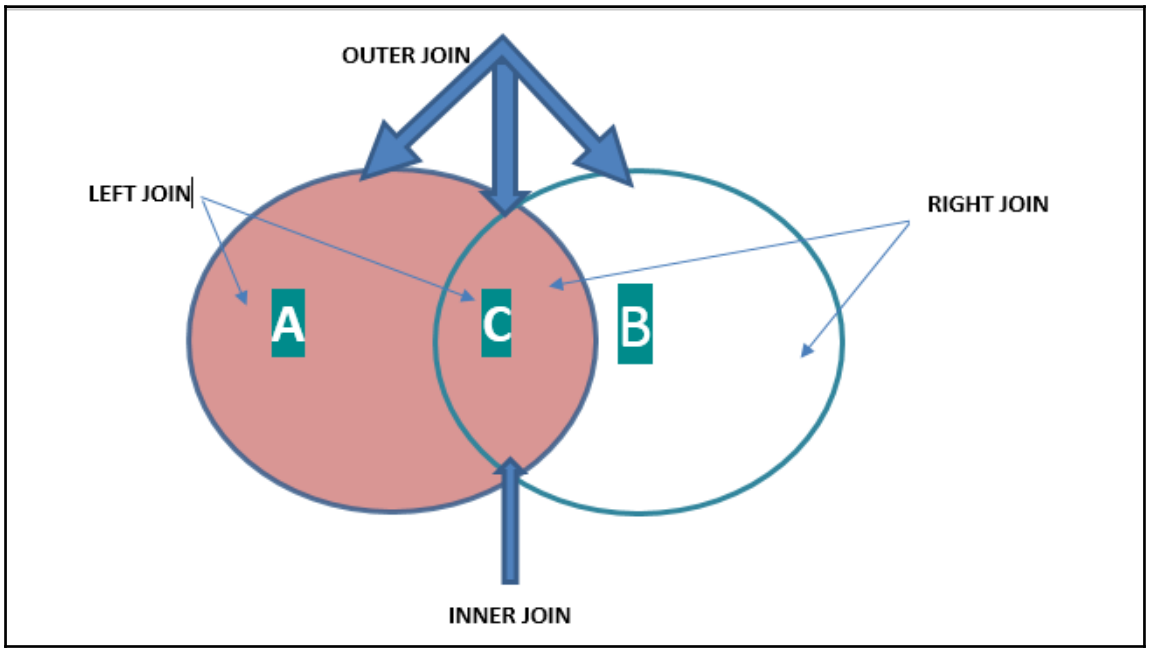
Query (local) History Answerset 1

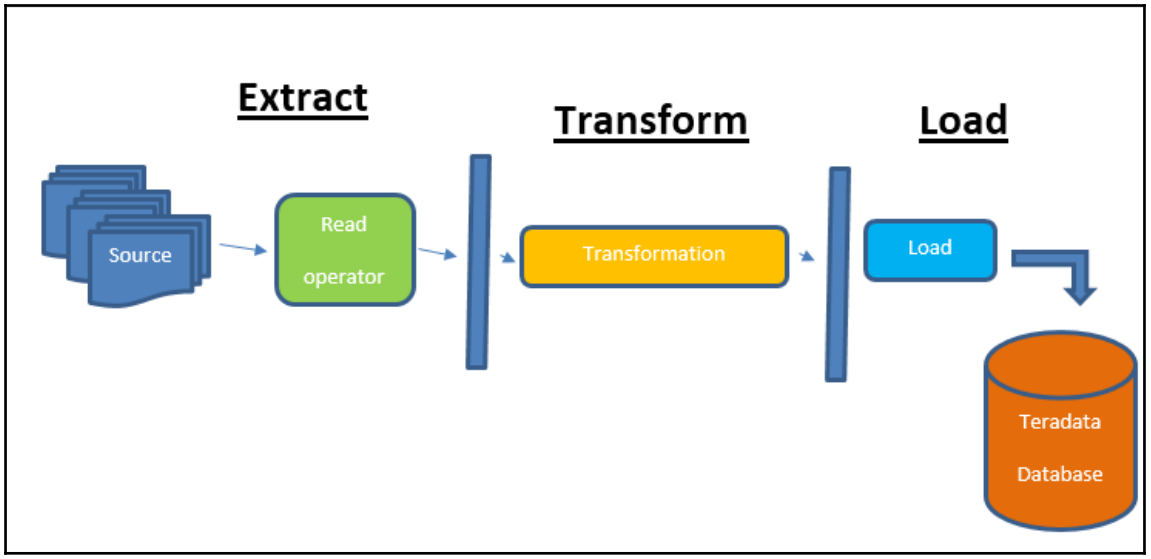
```
/* LEFT JOIN with ON condition*/
SELECT *
FROM  EMP F LEFT outer join EMP_SAL FC
ON    F.id = FC.id
and dept='it'
;
```

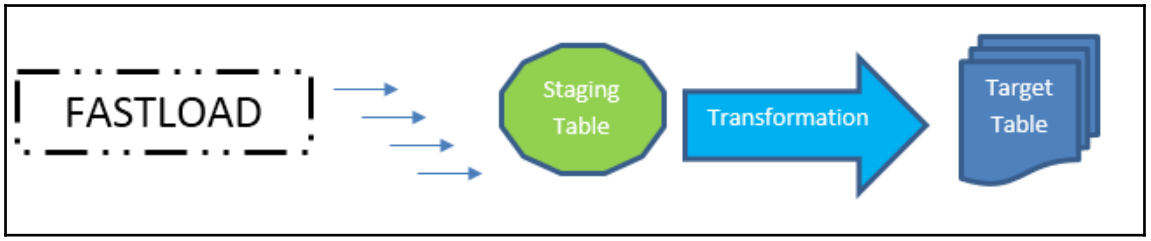
1 2

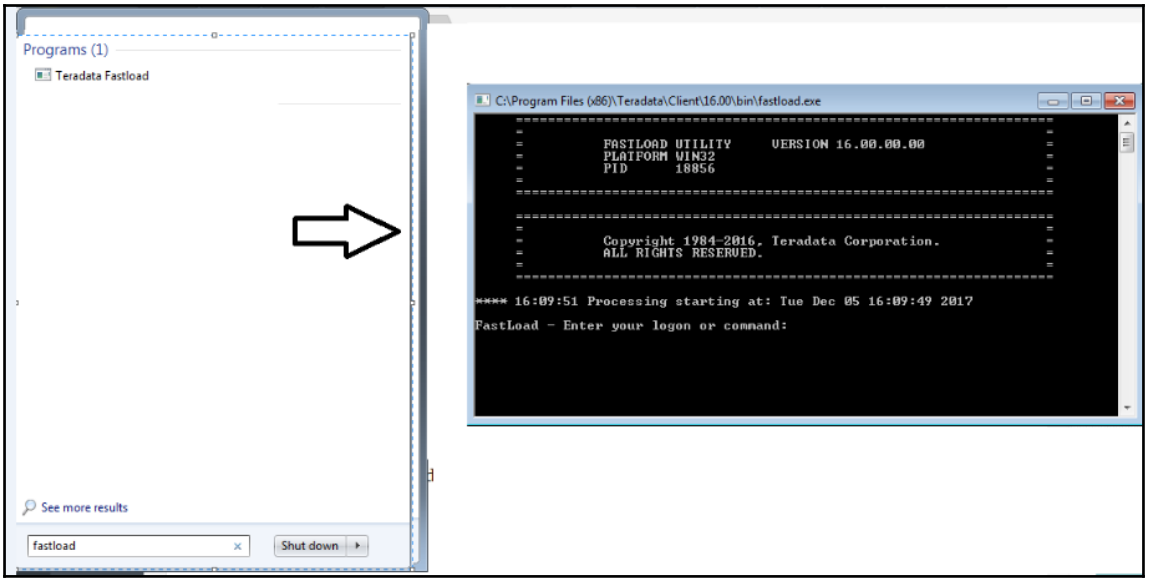
Answerset 3 Answerset 4 Answerset 5

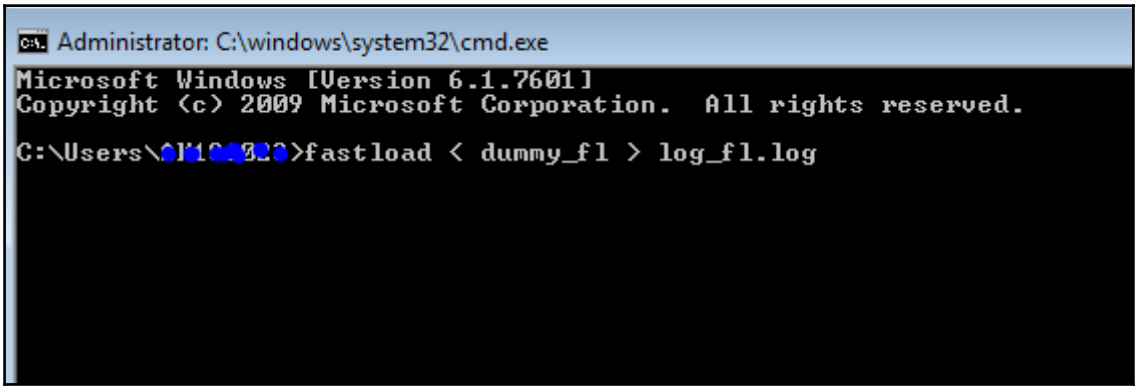
	name	ID	id	DEPT
1	Ross	3	?	?
2	Mark	?	?	?
3	Tom	1	?	?
4	Dave	?	?	?
5	Rosy	2	2	IT
6	Emily	2	2	IT

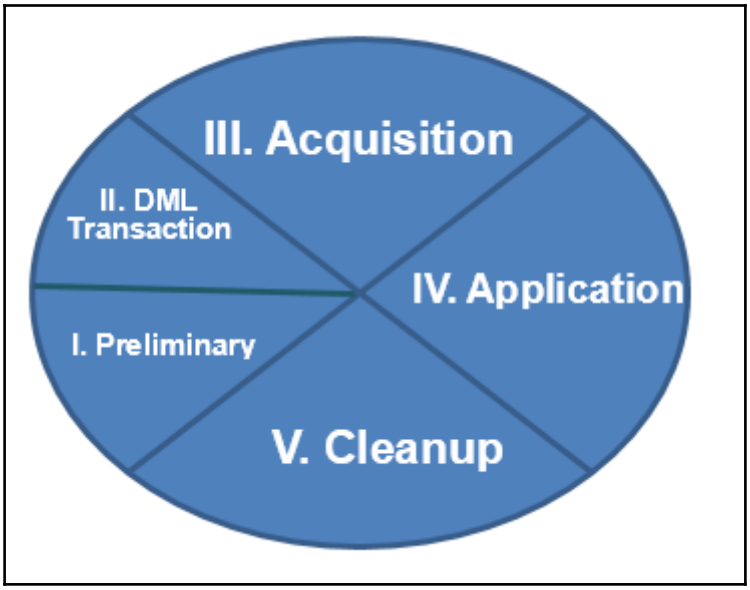


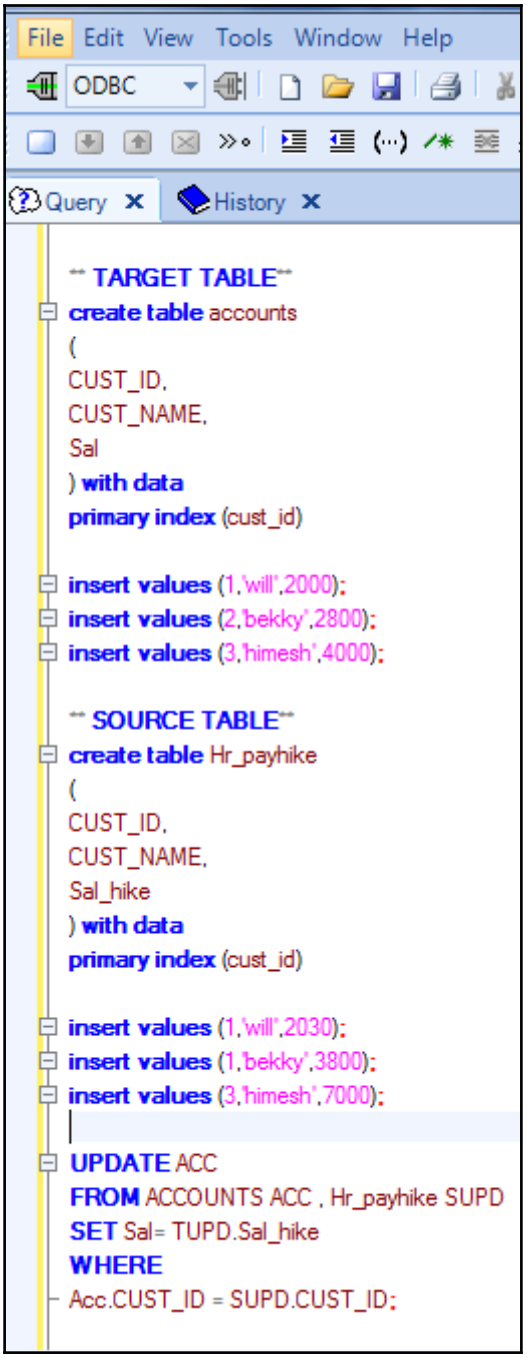

Extract
Transform
Load
Source
Read
operator
Transformation
Load
Teradata
Database


FASTLOAD
Staging
Table
Transformation
Target
Table

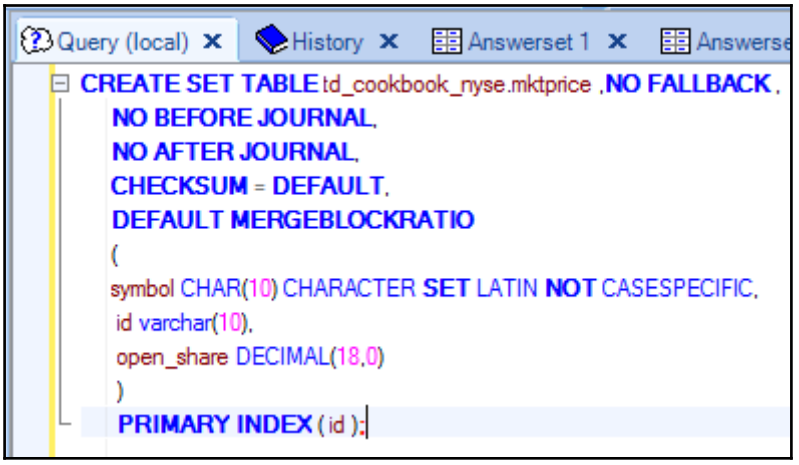

Programs (1)
Teradata Fastload
See more results
fastload
Shut down
C:\Program Files (x86)\Teradata\Client\16.00\bin\fastload.exe
FASTLOAD UTILITY VERSION 16.00.00.00
PLATFORM WIN32
PID 18856
Copyright 1984-2016, Teradata Corporation.
ALL RIGHTS RESERVED.
**** 16:09:51 Processing starting at: Tue Dec 05 16:09:49 2017
FastLoad - Enter your logon or command:

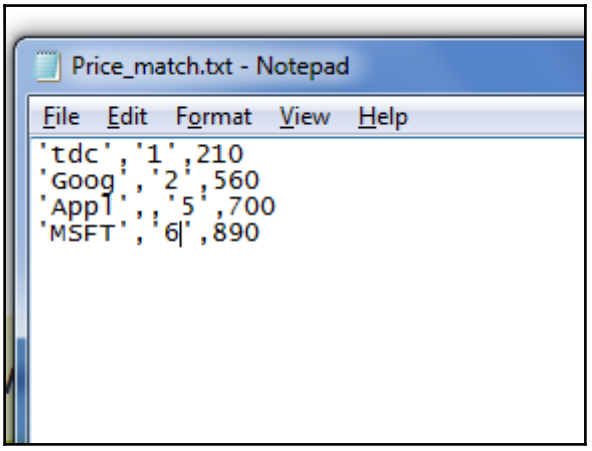

Administrator: C:\windows\system32\cmd.exe
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.
C:\Users\[redacted]>fastload < dummy_fl > log_fl.log


III. Acquisition
II. DML Transaction
IV. Application
I. Preliminary
V. Cleanup

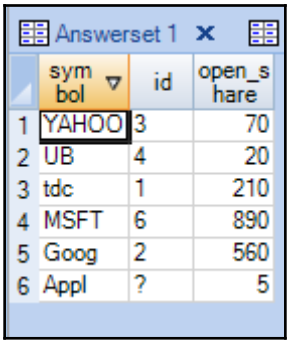

File Edit View Tools Window Help
ODBC
Query
History
** TARGET TABLE**
create table accounts
(
CUST_ID,
CUST_NAME,
Sal
) with data
primary index (cust_id)
insert values (1,'will',2000);
insert values (2,'bekky',2800);
insert values (3,'himesh',4000);
** SOURCE TABLE**
create table Hr_payhike
(
CUST_ID,
CUST_NAME,
Sal_hike
) with data
primary index (cust_id)
insert values (1,'will',2030);
insert values (1,'bekky',3800);
insert values (3,'himesh',7000);
UPDATE ACC
FROM ACCOUNTS ACC , Hr_payhike SUPD
SET Sal= TUPD.Sal_hike
WHERE
Acc.CUST_ID = SUPD.CUST_ID;

```
     =                                                                  =
     =          MultiLoad Acquisition Phase                             =
     =                                                                  =
     ====================================================================
**** 10:15:04 UTY0817 MultiLoad submitting the following request:
     BEGIN TRANSACTION;
**** 10:15:04 UTY0817 MultiLoad submitting the following request:
     CHECKPOINT LOADING INTERVAL 0;
**** 10:15:04 UTY0817 MultiLoad submitting the following request:
     CHECKPOINT LOADING INTERVAL 0;
**** 10:15:05 UTY0817 MultiLoad submitting the following request:
     CHECKPOINT LOADING INTERVAL 0;
**** 10:15:06 UTY0817 MultiLoad submitting the following request:
     USING Ckpt(VARBYTE(1024)) INSERT SYSDBA.Restartlog723_nld          (Logty
     Seq, MLoadSeq, MLoadImpSeq, MLoadSrcSeq,
     MiscInt1,MiscInt2,MiscInt3,MiscInt4,
     MiscInt5,MiscInt6,MiscInt7,MiscInt8,CkptInterval,byteflag,MLoadCkpt)
      VALUES (110, 1, 0, 1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1, :Ckpt);
**** 10:15:06 UTY0817 MultiLoad submitting the following request:
     CHECKPOINT LOADING INTERVAL 0;
**** 10:15:07 UTY0817 MultiLoad submitting the following request:
     USING Ckpt(VARBYTE(1024)) INSERT SYSDBA.Restartlog723_nld          (Logty
     Seq, MLoadSeq, MLoadImpSeq, MLoadSrcSeq,
     MiscInt1,MiscInt2,MiscInt3,MiscInt4,
     MiscInt5,MiscInt6,MiscInt7,MiscInt8,CkptInterval,byteflag,MLoadCkpt)
      VALUES (110, 1, 1, 1, 0, 4, 4, 4, 4, 0, 0, 0, 0, 0, 1, :Ckpt);
**** 10:15:07 UTY0826 A checkpoint has been taken, recording that end of file
     has been reached for IMPORT 1 of this MultiLoad Import task.
**** 10:15:07 UTY0817 MultiLoad submitting the following request:
     CHECKPOINT LOADING INTERVAL 1;
**** 10:15:08 UTY0817 MultiLoad submitting the following request:
     USING Ckpt(VARBYTE(1024)) INSERT SYSDBA.Restartlog723_nld
     (Logtype, Seq, MLoadSeq, MLoadImpSeq, MLoadSrcSeq,
     MiscInt1,MiscInt2,MiscInt3,MiscInt4,
     MiscInt5,MiscInt6,MiscInt7,MiscInt8,CkptInterval,byteflag,MLoadCkpt)
       VALUES (110, 1, 2, 1, 0, 4, 4, 4, 4, 0, 0, 0, 0, 1, 1, :Ckpt);
**** 10:15:08 UTY1803 Import processing statistics
     .                                    IMPORT  1      Total thus far
     .                                    ========      ==============
     Candidate records considered:.....           4.....              4
     Apply conditions satisfied:.......           4.....              4
     Candidate records not applied:....           0.....              0
     Candidate records rejected:.......           0.....              0
**** 10:15:08 UTY1821 Aquisition Phase statistics
     Elapsed time:  00:00:04
     CPU time:      0.0156001 Seconds
     MB/sec:        2.5e-005
     MB/cpusec:     0.00641022
**** 10:15:08 UTY0817 MultiLoad submitting the following request:
     CHECKPOINT LOADING INTERVAL 1;
**** 10:15:09 UTY0817 MultiLoad submitting the following request:
     CHECKPOINT LOADING INTERVAL 1 END;
**** 10:15:11 UTY0817 MultiLoad submitting the following request:
     INS SYSDBA.Restartlog723_nld (LogType, Seq, MLoadSeq)VALUES(130, 1, 30);
```


Query (local)
History
Answerset 1
CREATE SET TABLE td_cookbook_nyse.mktprice ,NO FALLBACK ,
NO BEFORE JOURNAL,
NO AFTER JOURNAL,
CHECKSUM = DEFAULT,
DEFAULT MERGEBLOCKRATIO
(
symbol CHAR(10) CHARACTER SET LATIN NOT CASESPECIFIC,
id varchar(10),
open_share DECIMAL(18,0)
)
PRIMARY INDEX (id);

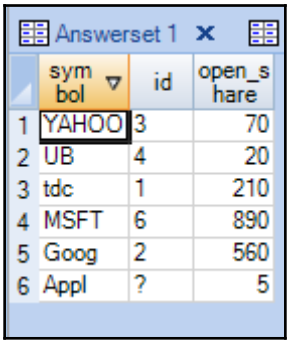

Price_match.txt - Notepad
File Edit Format View Help
'tdc','1',210
'Goog','2',560
'Appl','5',700
'MSFT','6',890

```
     =                                                                  =
     =          MultiLoad Acquisition Phase                             =
     =                                                                  =
     ====================================================================
**** 10:15:04 UTY0817 MultiLoad submitting the following request:
     BEGIN TRANSACTION;
**** 10:15:04 UTY0817 MultiLoad submitting the following request:
     CHECKPOINT LOADING INTERVAL 0;
**** 10:15:04 UTY0817 MultiLoad submitting the following request:
     CHECKPOINT LOADING INTERVAL 0;
**** 10:15:05 UTY0817 MultiLoad submitting the following request:
     CHECKPOINT LOADING INTERVAL 0;
**** 10:15:06 UTY0817 MultiLoad submitting the following request:
     USING Ckpt(VARBYTE(1024)) INSERT SYSDBA.Restartlog723_nld          (Logty
     Seq, MLoadSeq, MLoadImpSeq, MLoadSrcSeq,
     MiscInt1,MiscInt2,MiscInt3,MiscInt4,
     MiscInt5,MiscInt6,MiscInt7,MiscInt8,CkptInterval,byteflag,MLoadCkpt)
      VALUES (110, 1, 0, 1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1, :Ckpt);
**** 10:15:06 UTY0817 MultiLoad submitting the following request:
     CHECKPOINT LOADING INTERVAL 0;
**** 10:15:07 UTY0817 MultiLoad submitting the following request:
     USING Ckpt(VARBYTE(1024)) INSERT SYSDBA.Restartlog723_nld          (Logty
     Seq, MLoadSeq, MLoadImpSeq, MLoadSrcSeq,
     MiscInt1,MiscInt2,MiscInt3,MiscInt4,
     MiscInt5,MiscInt6,MiscInt7,MiscInt8,CkptInterval,byteflag,MLoadCkpt)
      VALUES (110, 1, 1, 1, 0, 4, 4, 4, 4, 0, 0, 0, 0, 0, 1, :Ckpt);
**** 10:15:07 UTY0826 A checkpoint has been taken, recording that end of file
     has been reached for IMPORT 1 of this MultiLoad Import task.
**** 10:15:07 UTY0817 MultiLoad submitting the following request:
     CHECKPOINT LOADING INTERVAL 1;
**** 10:15:08 UTY0817 MultiLoad submitting the following request:
     USING Ckpt(VARBYTE(1024)) INSERT SYSDBA.Restartlog723_nld
     (Logtype, Seq, MLoadSeq, MLoadImpSeq, MLoadSrcSeq,
     MiscInt1,MiscInt2,MiscInt3,MiscInt4,
     MiscInt5,MiscInt6,MiscInt7,MiscInt8,CkptInterval,byteflag,MLoadCkpt)
       VALUES (110, 1, 2, 1, 0, 4, 4, 4, 4, 0, 0, 0, 0, 1, 1, :Ckpt);
**** 10:15:08 UTY1803 Import processing statistics
     .                                    IMPORT  1      Total thus far
     .                                    ========      ==============
     Candidate records considered:.....           4.....              4
     Apply conditions satisfied:.......           4.....              4
     Candidate records not applied:....           0.....              0
     Candidate records rejected:.......           0.....              0
**** 10:15:08 UTY1821 Aquisition Phase statistics
     Elapsed time:  00:00:04
     CPU time:      0.0156001 Seconds
     MB/sec:        2.5e-005
     MB/cpusec:     0.00641022
**** 10:15:08 UTY0817 MultiLoad submitting the following request:
     CHECKPOINT LOADING INTERVAL 1;
**** 10:15:09 UTY0817 MultiLoad submitting the following request:
     CHECKPOINT LOADING INTERVAL 1 END;
**** 10:15:11 UTY0817 MultiLoad submitting the following request:
     INS SYSDBA.Restartlog723_nld (LogType, Seq, MLoadSeq)VALUES(130, 1, 30);
```



Answerset 1

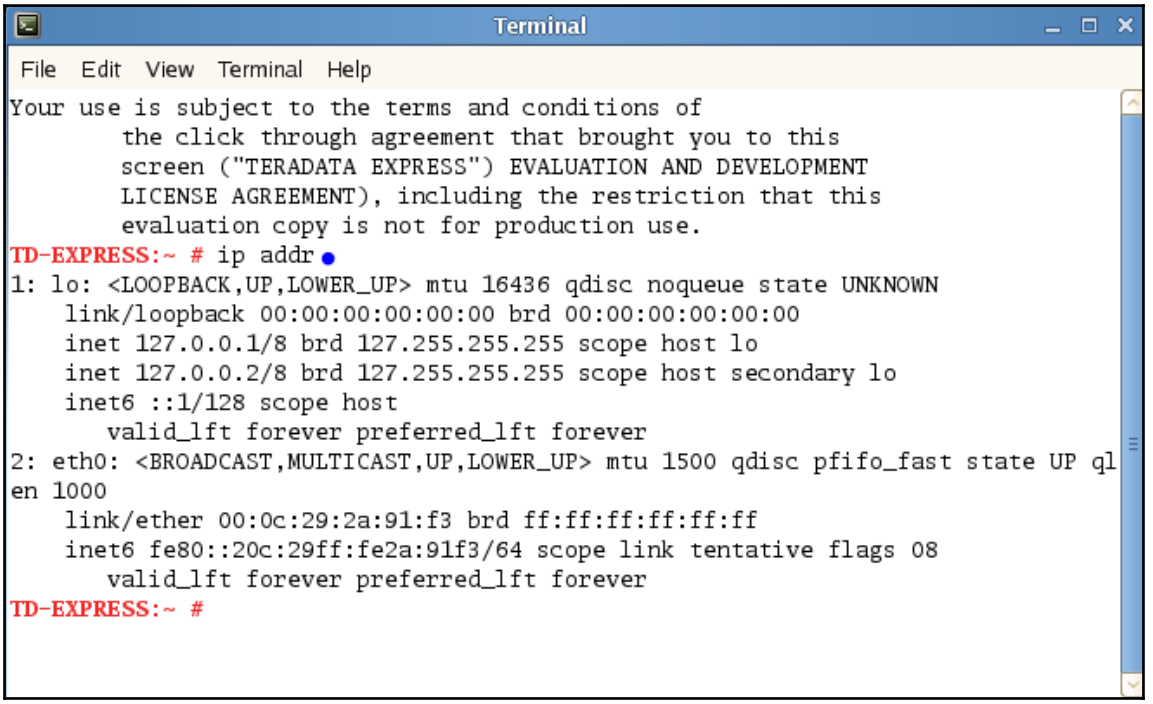
	symbol	id	open_share
1	YAHOO	3	70
2	UB	4	20
3	tdc	1	210
4	MSFT	6	890
5	Goog	2	560
6	Appl	?	5

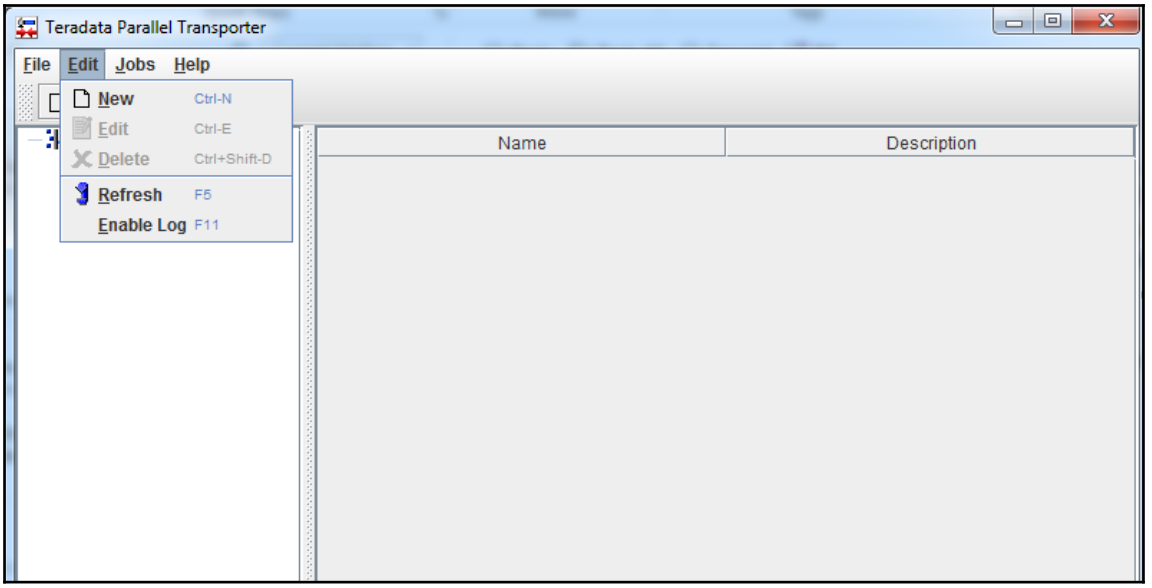


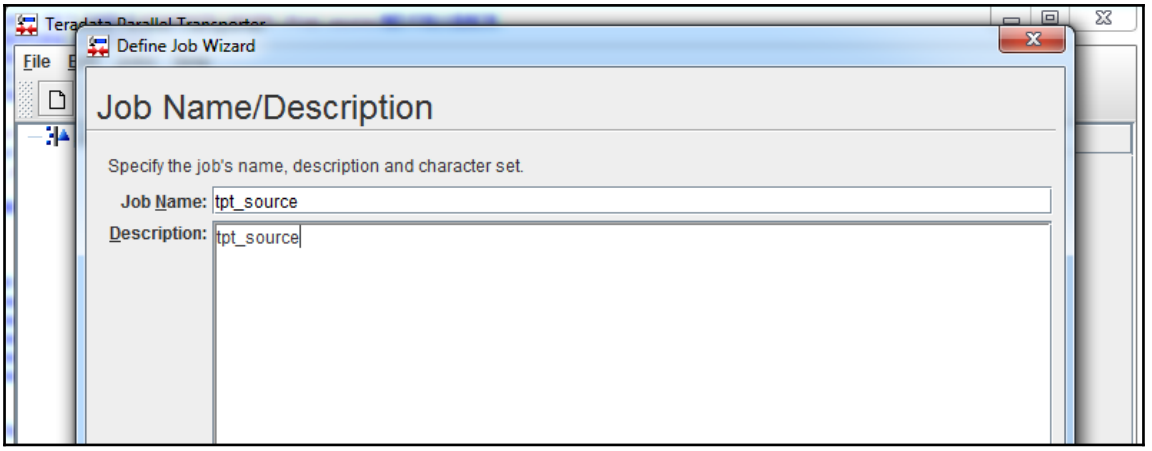
Answerset 1

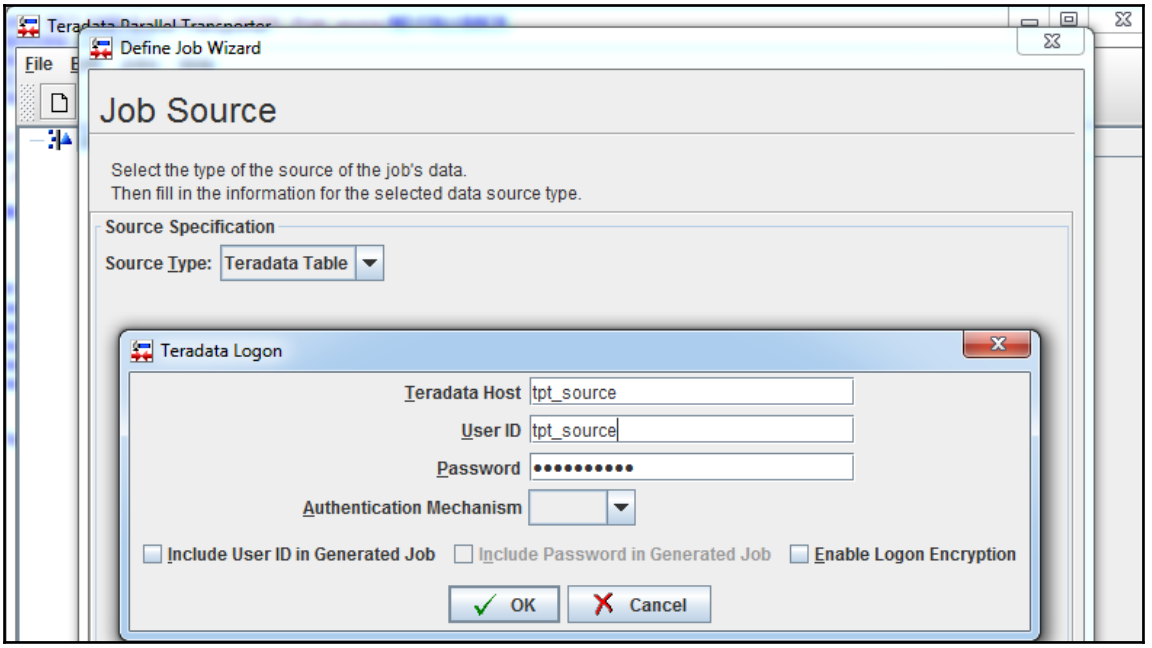
	symbol	id	open_share
1	YAHOO	3	70
2	UB	4	20
3	tdc	1	210
4	MSFT	6	890
5	Goog	2	560
6	Appl	?	5

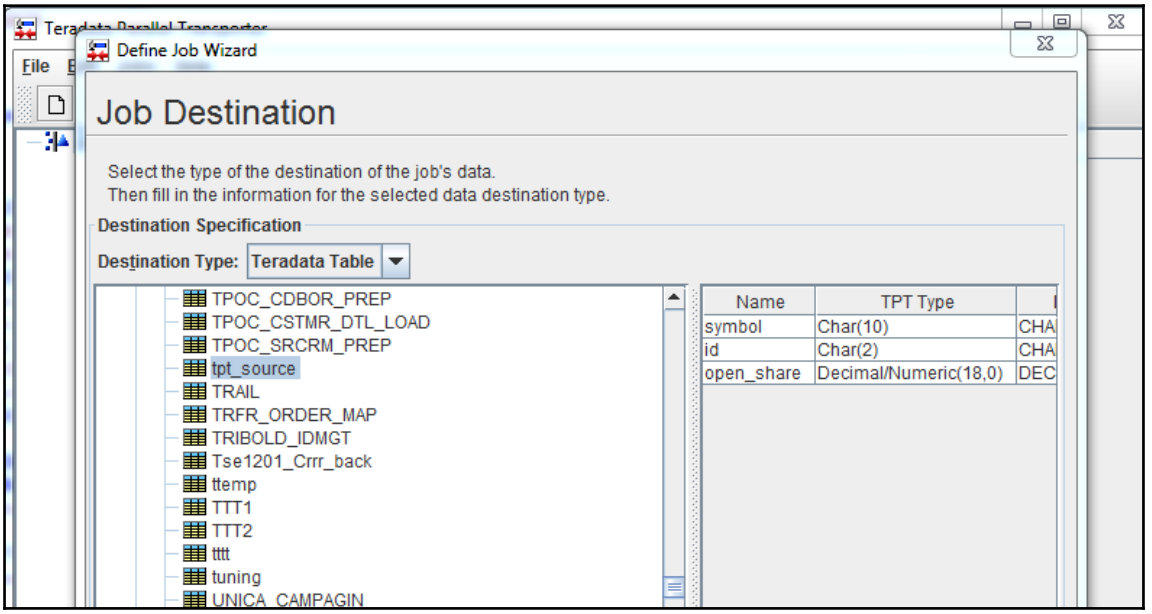
Chapter 6: Building Loading Utility – Replication and Loading

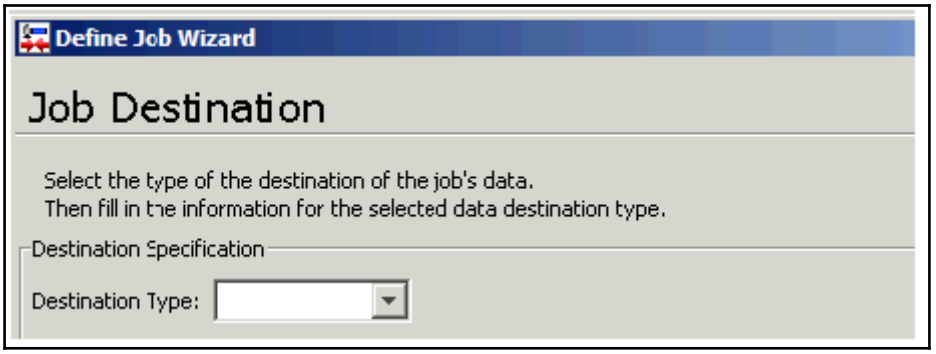



Teradata Parallel Transporter
File
Edit
Jobs
Help
New Ctrl-N
Edit Ctrl-E
Delete Ctrl+Shift-D
Refresh F5
Enable Log F11
Name
Description

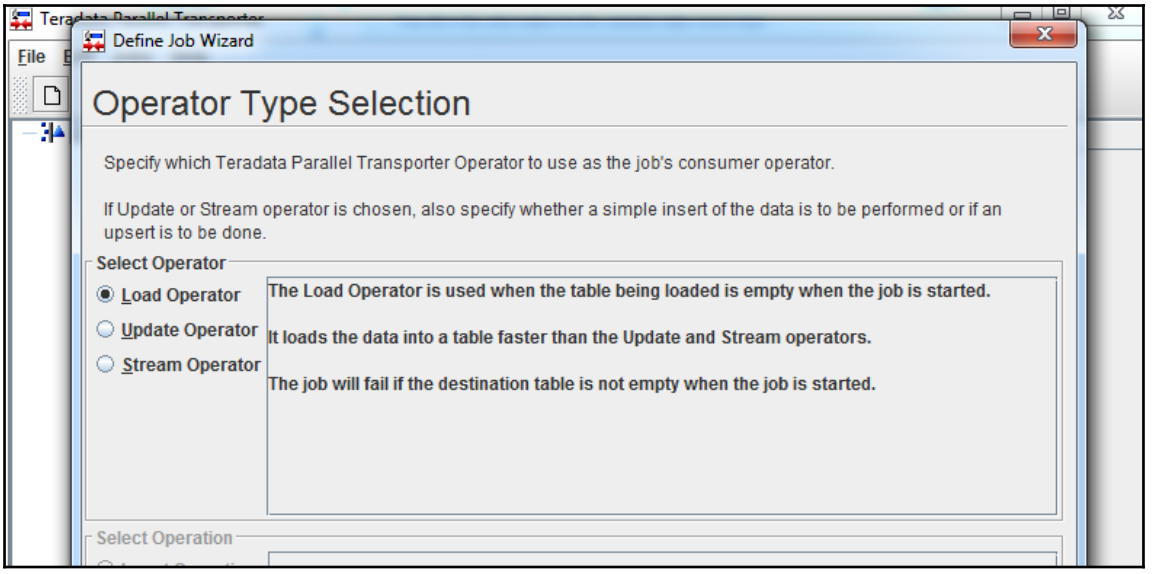

Define Job Wizard
Job Name/Description
Specify the job's name, description and character set.
Job Name: tpt_source
Description: tpt_source

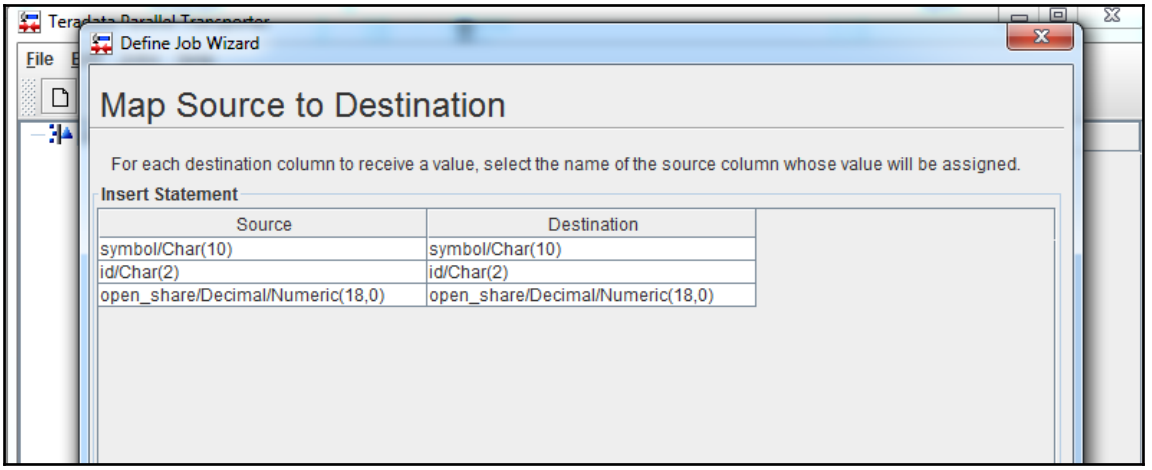

Define Job Wizard
Job Source
Select the type of the source of the job's data.
Then fill in the information for the selected data source type.
Source Specification
Source Type: Teradata Table
Teradata Logon
Teradata Host tpt_source
User ID tpt_source
Password
Authentication Mechanism
Include User ID in Generated Job
Include Password in Generated Job
Enable Logon Encryption
OK
Cancel

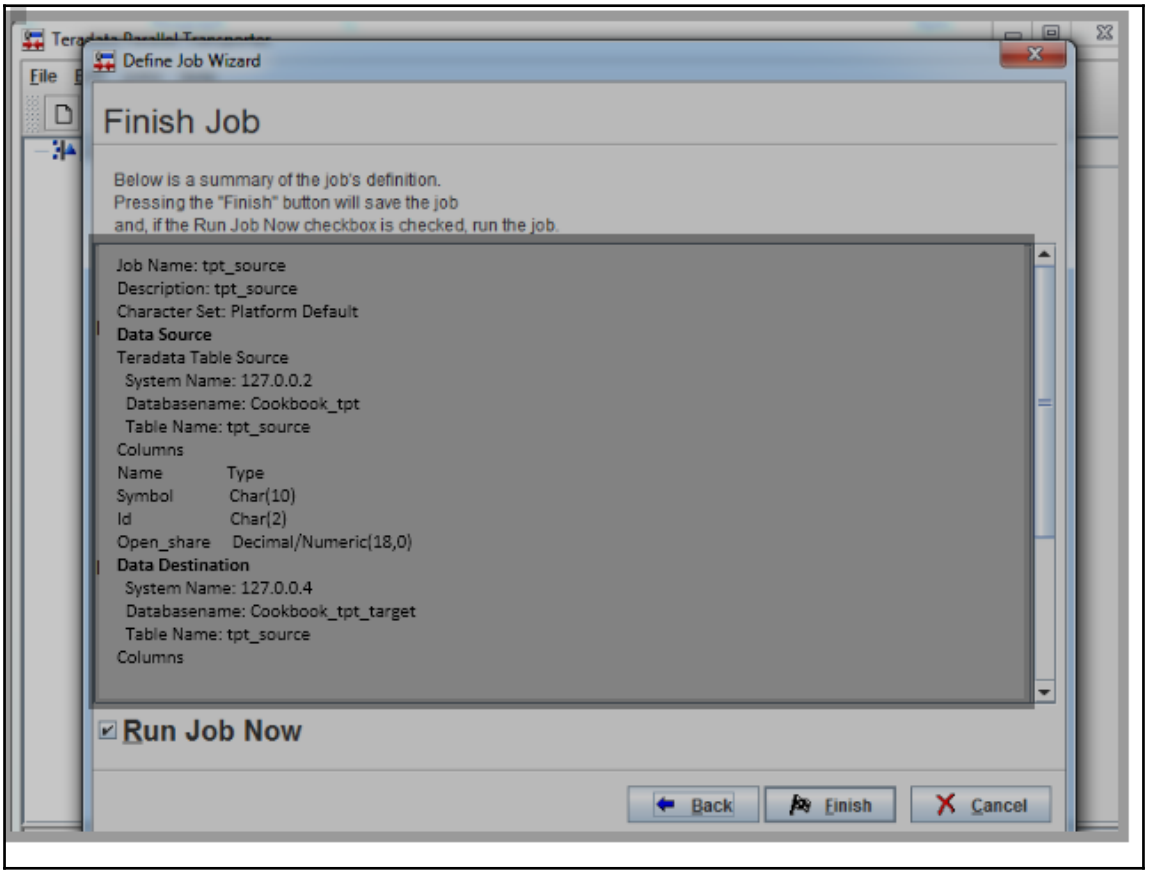

Define Job Wizard
Job Destination
Select the type of the destination of the job's data.
Then fill in the information for the selected data destination type.
Destination Specification
Destination Type: Teradata Table
TPOC_CDBOR_PREP
TPOC_CSTMR_DTL_LOAD
TPOC_SRCRM_PREP
tpt_source
TRAIL
TRFR_ORDER_MAP
TRIBOLD_IDMGT
Tse1201_Crrr_back
ttemp
TTT1
TTT2
tttt
tuning
UNICA_CAMPAGIN
Name
TPT Type
symbol
Char(10)
id
Char(2)
open_share
Decimal/Numeric(18,0)

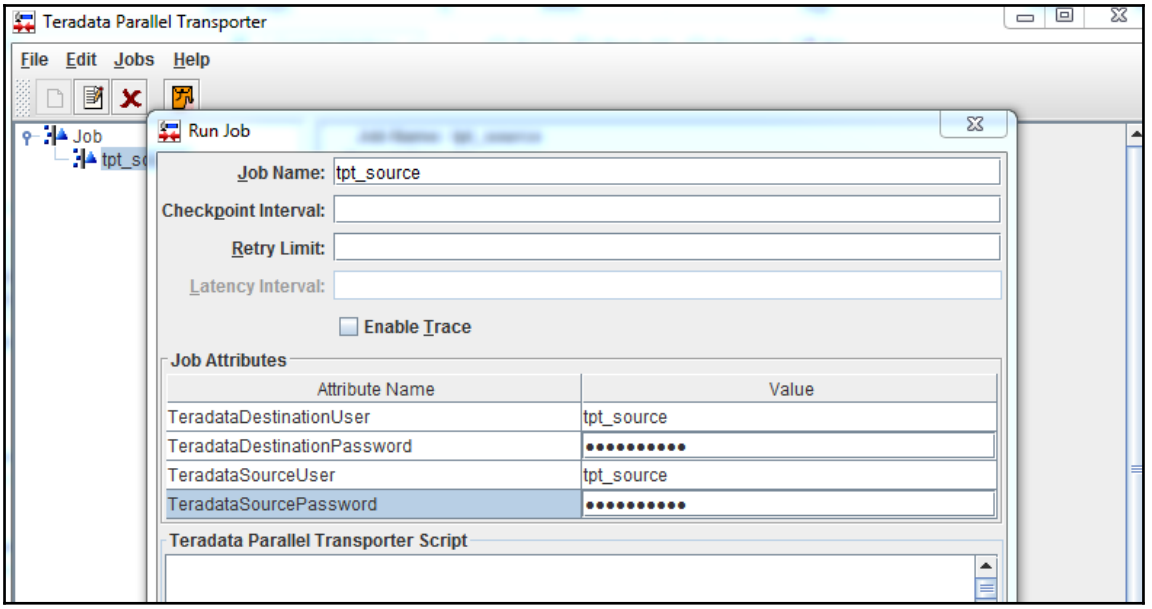

Define Job Wizard
Job Destination
Select the type of the destination of the job's data.
Then fill in the information for the selected data destination type.
Destination Specification
Destination Type:

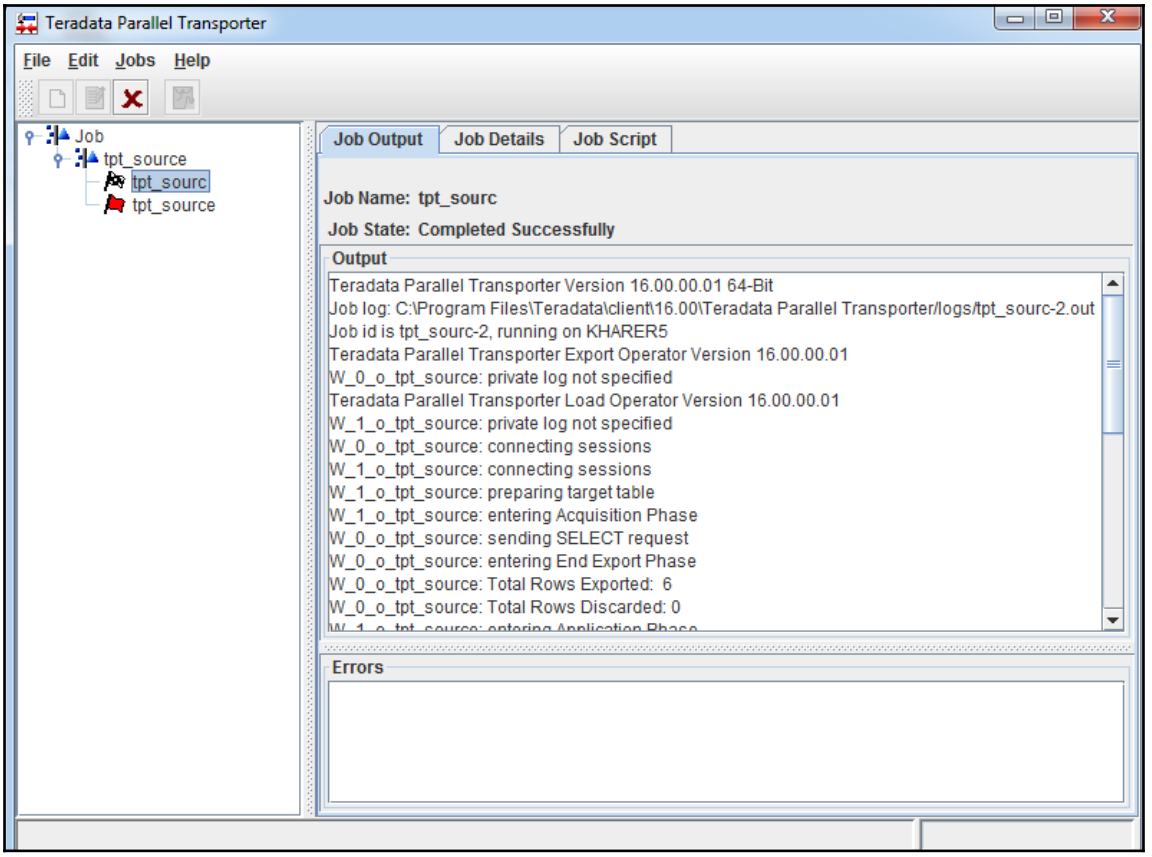
Teradata Logon
Teradata Host
User ID
Password
Include User ID in Generated Job
Include Password in Generated Job
OK
Cancel

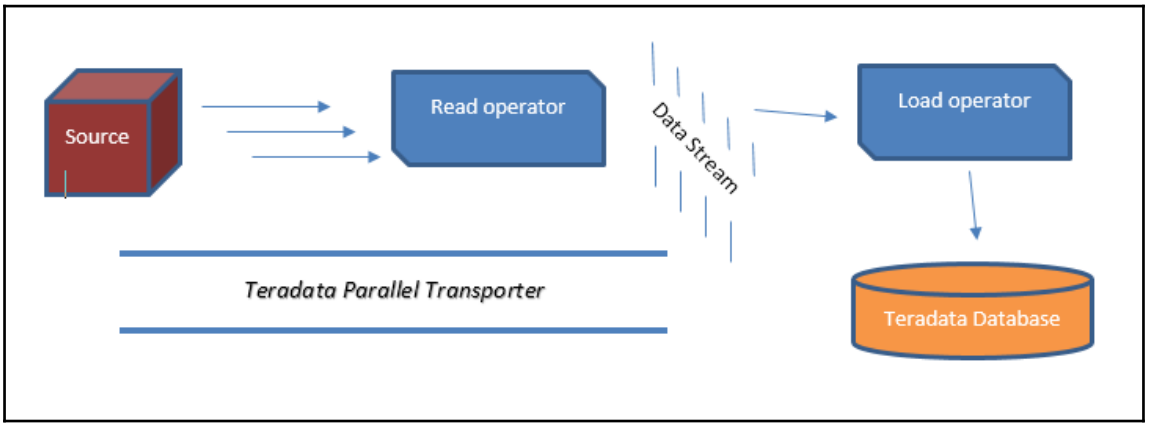

File
Define Job Wizard
Operator Type Selection
Specify which Teradata Parallel Transporter Operator to use as the job's consumer operator.
If Update or Stream operator is chosen, also specify whether a simple insert of the data is to be performed or if an upsert is to be done.
Select Operator
Load Operator
Update Operator
Stream Operator
The Load Operator is used when the table being loaded is empty when the job is started.
It loads the data into a table faster than the Update and Stream operators.
The job will fail if the destination table is not empty when the job is started.
Select Operation


Define Job Wizard
Map Source to Destination
For each destination column to receive a value, select the name of the source column whose value will be assigned.
Insert Statement
Source
Destination
symbol/Char(10)
symbol/Char(10)
id/Char(2)
id/Char(2)
open_share/Decimal/Numeric(18,0)
open_share/Decimal/Numeric(18,0)

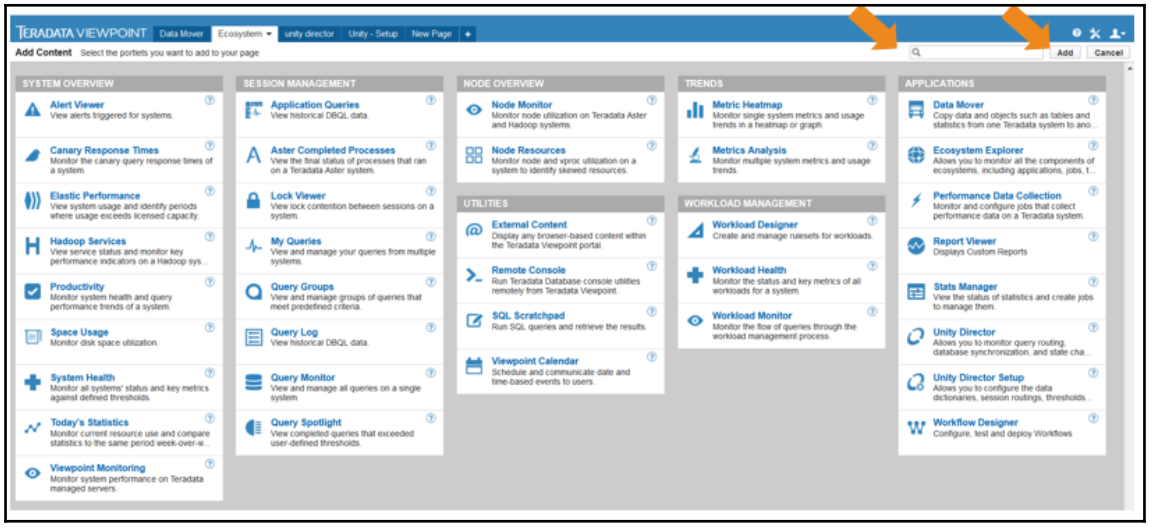

Define Job Wizard
Finish Job
Below is a summary of the job's definition.
Pressing the "Finish" button will save the job
and, if the Run Job Now checkbox is checked, run the job.
Job Name: tpt_source
Description: tpt_source
Character Set: Platform Default
Data Source
Teradata Table Source
System Name: 127.0.0.2
Databasename: Cookbook_tpt
Table Name: tpt_source
Columns
Name Type
Symbol Char(10)
Id Char(2)
Open_share Decimal/Numeric(18,0)
Data Destination
System Name: 127.0.0.4
Databasename: Cookbook_tpt_target
Table Name: tpt_source
Columns
Run Job Now
Back
Finish
Cancel

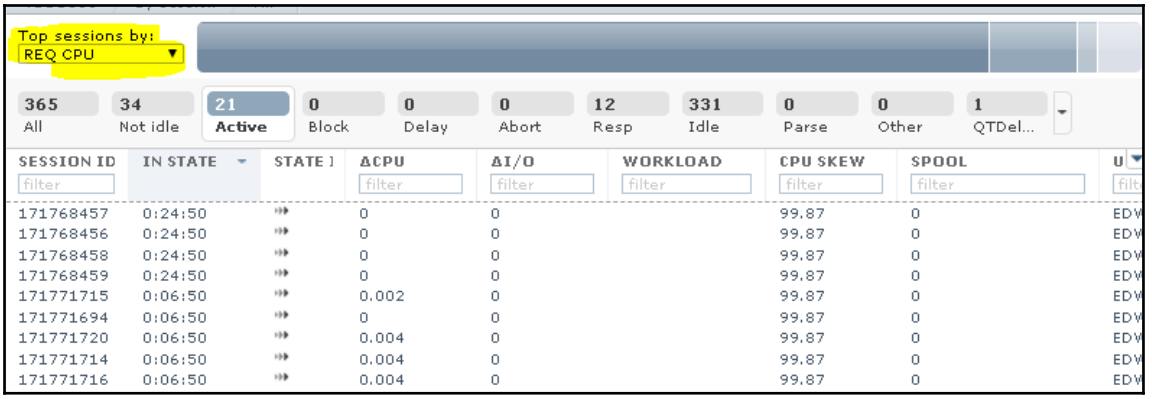

Teradata Parallel Transporter
File Edit Jobs Help
Job
Run Job
Job Name: tpt_source
Checkpoint Interval:
Retry Limit:
Latency Interval:
Enable Trace
Job Attributes
Attribute Name
Value
TeradataDestinationUser
tpt_source
TeradataDestinationPassword
TeradataSourceUser
tpt_source
TeradataSourcePassword
Teradata Parallel Transporter Script

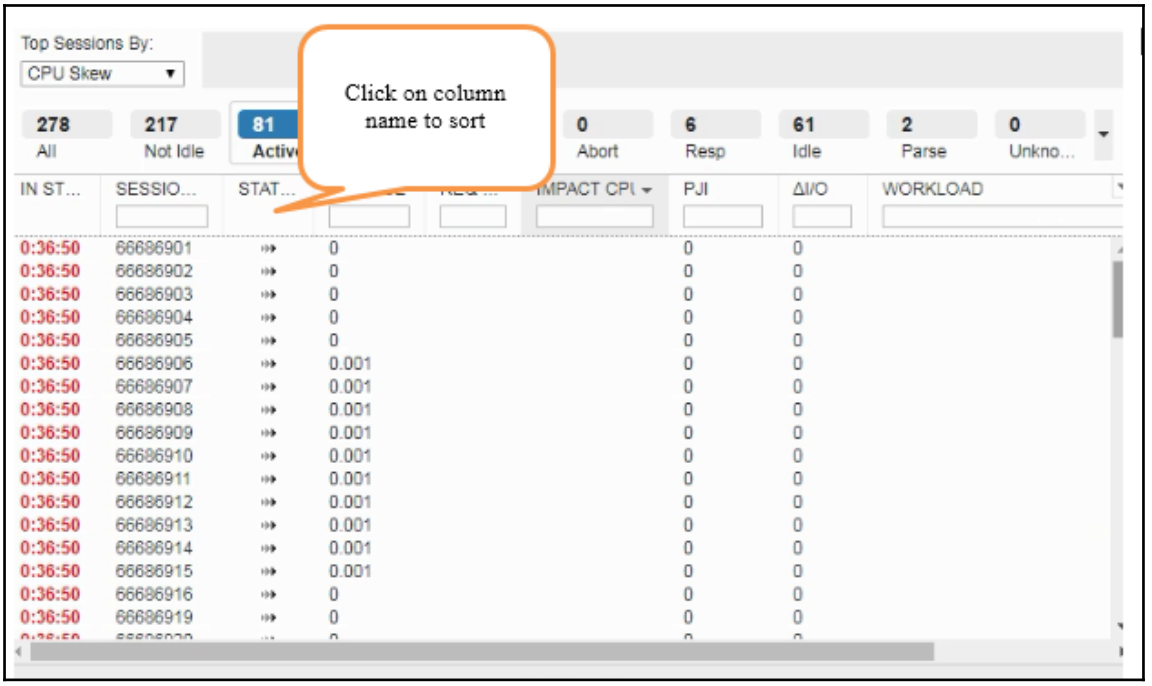

Teradata Parallel Transporter
File Edit Jobs Help
Job
tpt_source
tpt_sourc
tpt_source
Job Output
Job Details
Job Script
Job Name: tpt_sourc
Job State: Completed Successfully
Output
Teradata Parallel Transporter Version 16.00.00.01 64-Bit
Job log: C:\Program Files\Teradata\client\16.00\Teradata Parallel Transporter/logs/tpt_sourc-2.out
Job id is tpt_sourc-2, running on KHARER5
Teradata Parallel Transporter Export Operator Version 16.00.00.01
W_0_o_tpt_source: private log not specified
Teradata Parallel Transporter Load Operator Version 16.00.00.01
W_1_o_tpt_source: private log not specified
W_0_o_tpt_source: connecting sessions
W_1_o_tpt_source: connecting sessions
W_1_o_tpt_source: preparing target table
W_1_o_tpt_source: entering Acquisition Phase
W_0_o_tpt_source: sending SELECT request
W_0_o_tpt_source: entering End Export Phase
W_0_o_tpt_source: Total Rows Exported: 6
W_0_o_tpt_source: Total Rows Discarded: 0
Errors


Source
Read operator
Data Stream
Load operator
Teradata Parallel Transporter
Teradata Database

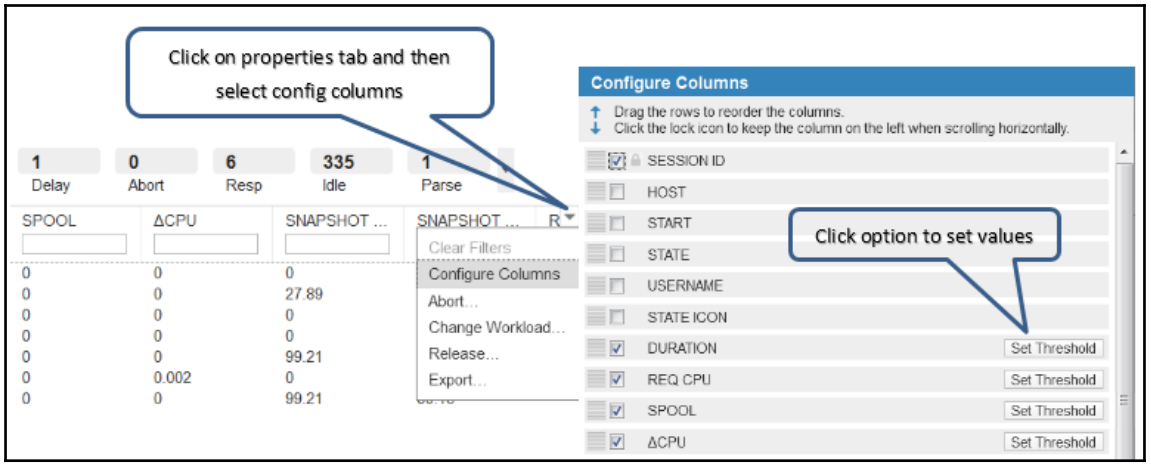
Chapter 7: Monitoring the better way

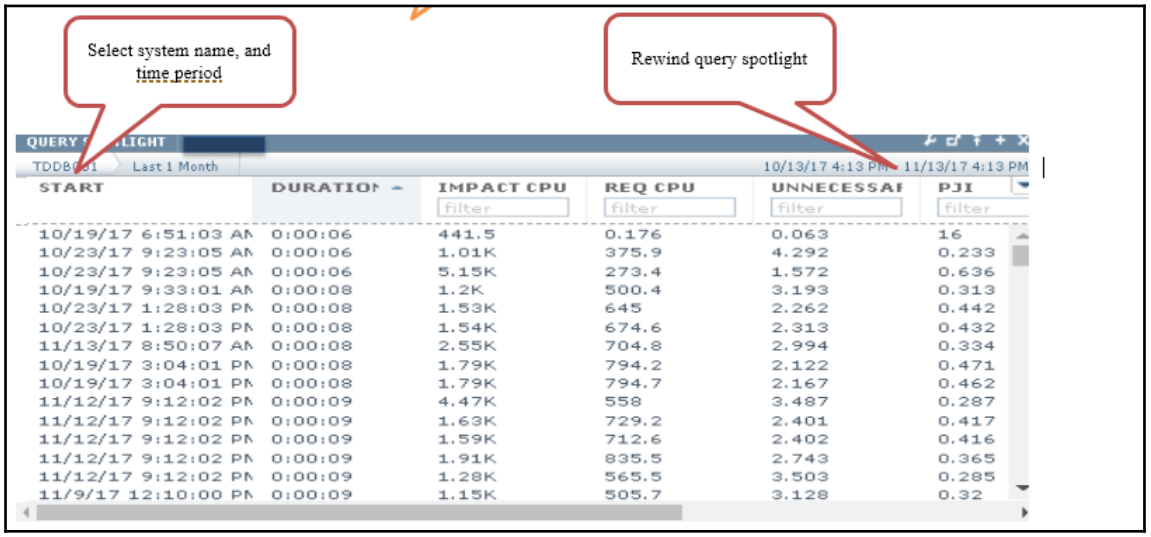


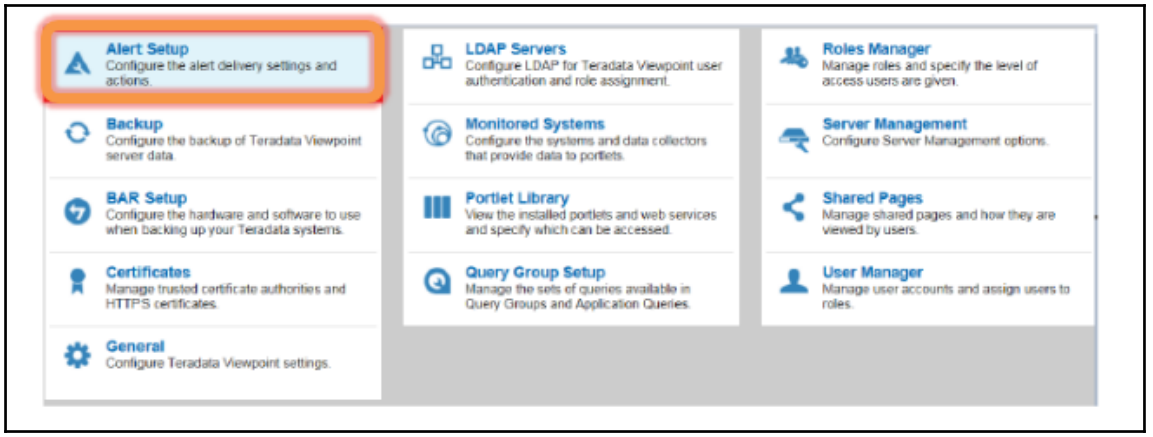

Top sessions by:
REQ CPU
365 All
34 Not idle
21 Active
0 Block
0 Delay
0 Abort
12 Resp
331 Idle
0 Parse
0 Other
1 QTDel...
SESSION ID
IN STATE
STATE
ΔCPU
ΔI/O
WORKLOAD
CPU SKEW
SPOOL
171768457 0:24:50 0 0 99.87 0 EDW
171768456 0:24:50 0 0 99.87 0 EDW
171768458 0:24:50 0 0 99.87 0 EDW
171768459 0:24:50 0 0 99.87 0 EDW
171771715 0:06:50 0.002 0 99.87 0 EDW
171771694 0:06:50 0 0 99.87 0 EDW
171771720 0:06:50 0.004 0 99.87 0 EDW
171771714 0:06:50 0.004 0 99.87 0 EDW
171771716 0:06:50 0.004 0 99.87 0 EDW

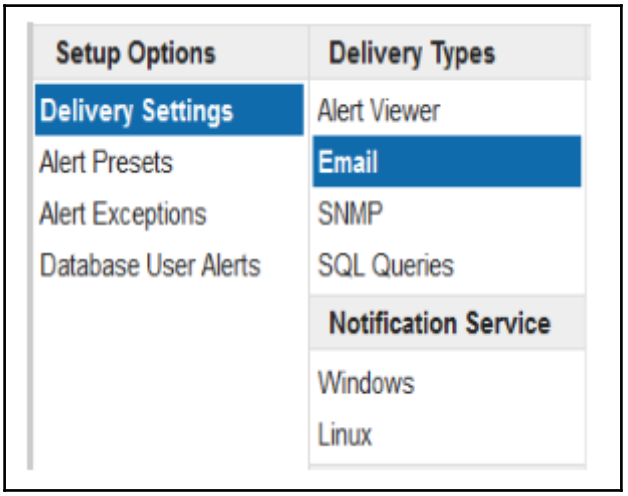

Top Sessions By:
CPU Skew
Click on column name to sort
278 All
217 Not Idle
81 Activ
0 Abort
6 Resp
61 Idle
2 Parse
0 Unkno...
IN ST...
SESSIO...
STAT...
IMPACT CPU
PJI
ΔI/O
WORKLOAD
0:36:50 66686901 0 0 0
0:36:50 66686902 0 0 0
0:36:50 66686903 0 0 0
0:36:50 66686904 0 0 0
0:36:50 66686905 0 0 0
0:36:50 66686906 0.001 0 0
0:36:50 66686907 0.001 0 0
0:36:50 66686908 0.001 0 0
0:36:50 66686909 0.001 0 0
0:36:50 66686910 0.001 0 0
0:36:50 66686911 0.001 0 0
0:36:50 66686912 0.001 0 0
0:36:50 66686913 0.001 0 0
0:36:50 66686914 0.001 0 0
0:36:50 66686915 0.001 0 0
0:36:50 66686916 0 0 0
0:36:50 66686919 0 0 0

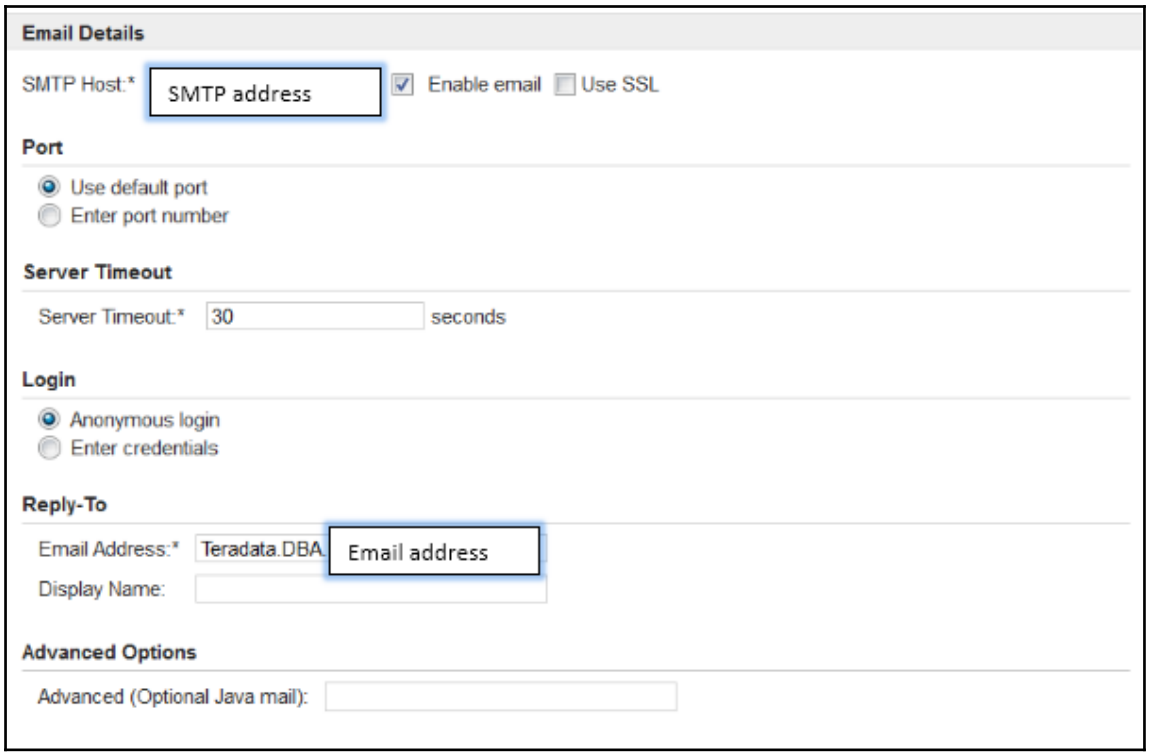
Select date and time
Control time from here
Toggle ON/OFF
12/11/2017
11:51:39 AM
1d 1h 10m 1m 10s 1s 1s 10s 1m 10m 1h 1d
Rewind On
Off

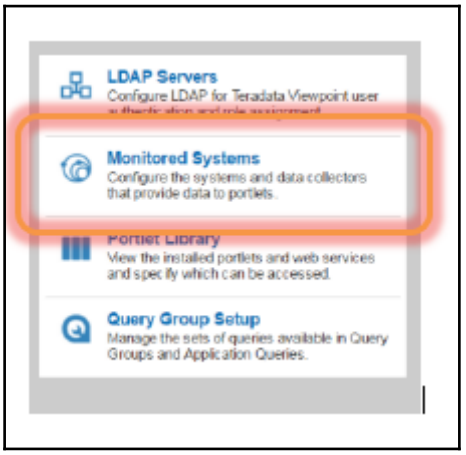

Click on properties tab and then select config columns
1 Delay
0 Abort
6 Resp
335 Idle
1 Parse
SPOOL
ΔCPU
SNAPSHOT ...
SNAPSHOT ...
Clear Filters
Configure Columns
Abort...
Change Workload...
Release...
Export...
Configure Columns
Drag the rows to reorder the columns.
Click the lock icon to keep the column on the left when scrolling horizontally.
SESSION ID
HOST
START
STATE
USERNAME
STATE ICON
DURATION
REQ CPU
SPOOL
ΔCPU
Set Threshold
Click option to set values

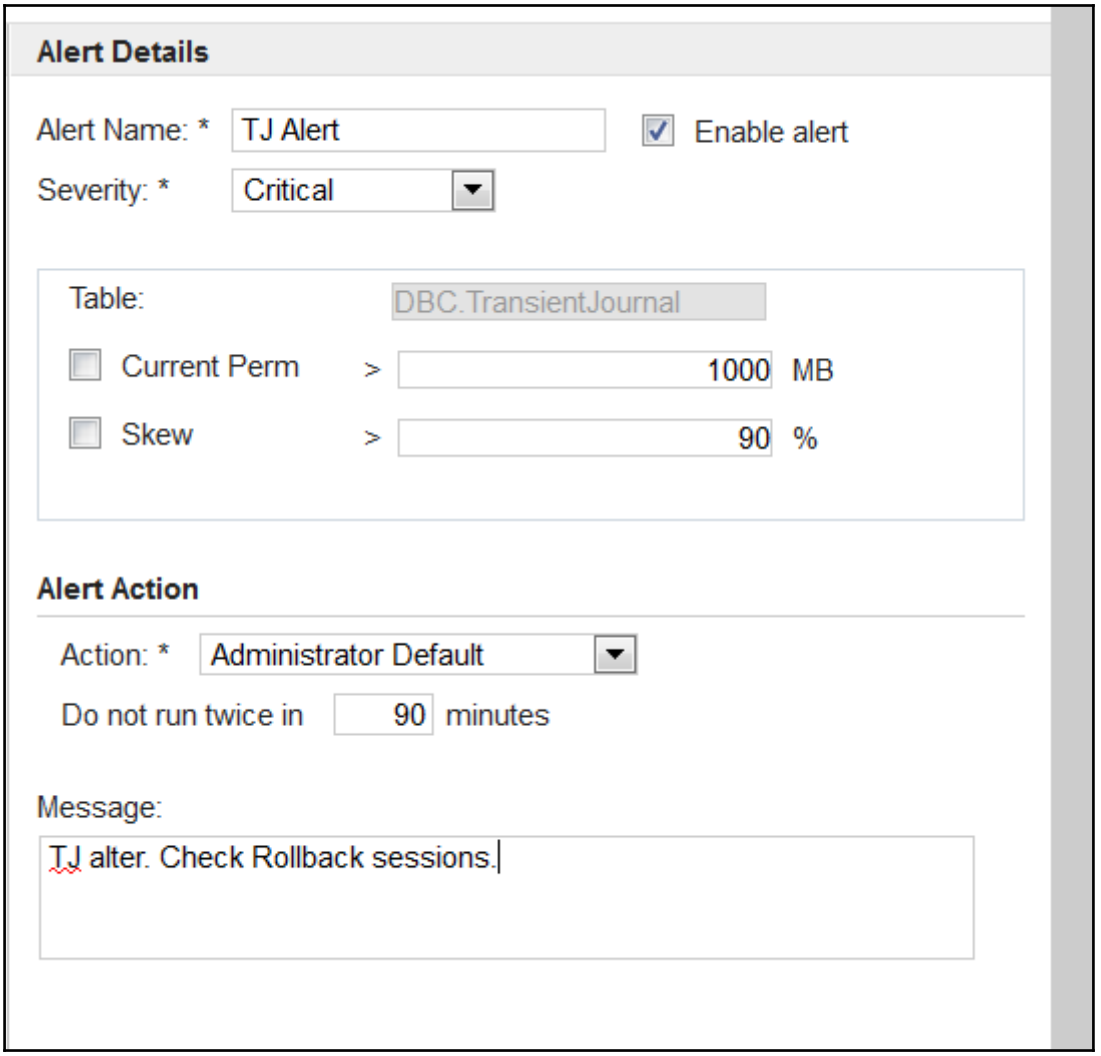

Select system name, and time period
Rewind query spotlight
Last 1 Month
10/13/17 4:13 PM
11/13/17 4:13 PM
START
DURATION
IMPACT CPU
REQ CPU
UNNECESSAI
PJI
10/19/17 6:51:03 AM 0:00:06 441.5 0.176 0.063 16
10/23/17 9:23:05 AM 0:00:06 1.01K 375.9 4.292 0.233
10/23/17 9:23:05 AM 0:00:06 5.15K 273.4 1.572 0.636
10/19/17 9:33:01 AM 0:00:08 1.2K 500.4 3.193 0.313
10/23/17 1:28:03 PM 0:00:08 1.53K 645 2.262 0.442
10/23/17 1:28:03 PM 0:00:08 1.54K 674.6 2.313 0.432
11/13/17 8:50:07 AM 0:00:08 2.55K 704.8 2.994 0.334
10/19/17 3:04:01 PM 0:00:08 1.79K 794.2 2.122 0.471
10/19/17 3:04:01 PM 0:00:08 1.79K 794.7 2.167 0.462
11/12/17 9:12:02 PM 0:00:09 4.47K 558 3.487 0.287
11/12/17 9:12:02 PM 0:00:09 1.63K 729.2 2.401 0.417
11/12/17 9:12:02 PM 0:00:09 1.59K 712.6 2.402 0.416
11/12/17 9:12:02 PM 0:00:09 1.91K 835.5 2.743 0.365
11/12/17 9:12:02 PM 0:00:09 1.28K 565.5 3.503 0.285
11/9/17 12:10:00 PM 0:00:09 1.15K 505.7 3.128 0.32


Alert Setup
Configure the alert delivery settings and actions.
Backup
Configure the backup of Teradata Viewpoint server data.
BAR Setup
Configure the hardware and software to use when backing up your Teradata systems.
Certificates
Manage trusted certificate authorities and HTTPS certificates.
General
Configure Teradata Viewpoint settings.
LDAP Servers
Configure LDAP for Teradata Viewpoint user authentication and role assignment.
Monitored Systems
Configure the systems and data collectors that provide data to portlets.
Portlet Library
View the installed portlets and web services and specify which can be accessed.
Query Group Setup
Manage the sets of queries available in Query Groups and Application Queries.
Roles Manager
Manage roles and specify the level of access users are given.
Server Management
Configure Server Management options.
Shared Pages
Manage shared pages and how they are viewed by users.
User Manager
Manage user accounts and assign users to roles.


Setup Options
Delivery Settings
Alert Presets
Alert Exceptions
Database User Alerts
Delivery Types
Alert Viewer
Email
SNMP
SQL Queries
Notification Service
Windows
Linux

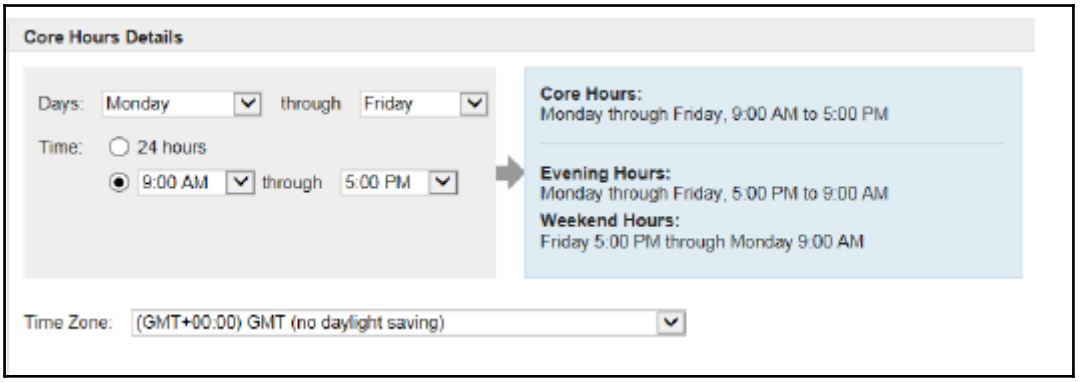

Email Details
SMTP Host:*
SMTP address
Enable email
Use SSL
Port
Use default port
Enter port number
Server Timeout
Server Timeout:*
30
seconds
Login
Anonymous login
Enter credentials
Reply-To
Email Address:*
Teradata.DBA
Email address
Display Name:
Advanced Options
Advanced (Optional Java mail):

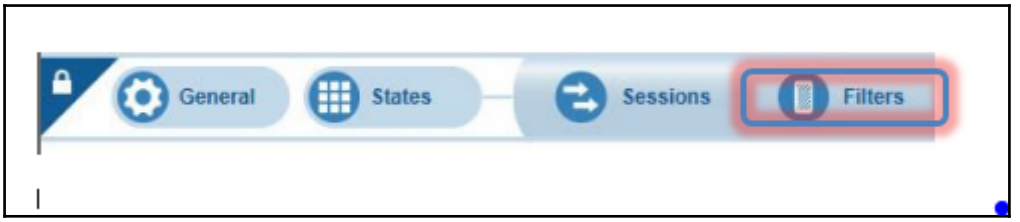

LDAP Servers
Configure LDAP for Teradata Viewpoint user
Monitored Systems
Configure the systems and data collectors that provide data to portlets.
Portlet Library
View the installed portlets and web services and specify which can be accessed.
Query Group Setup
Manage the sets of queries available in Query Groups and Application Queries.

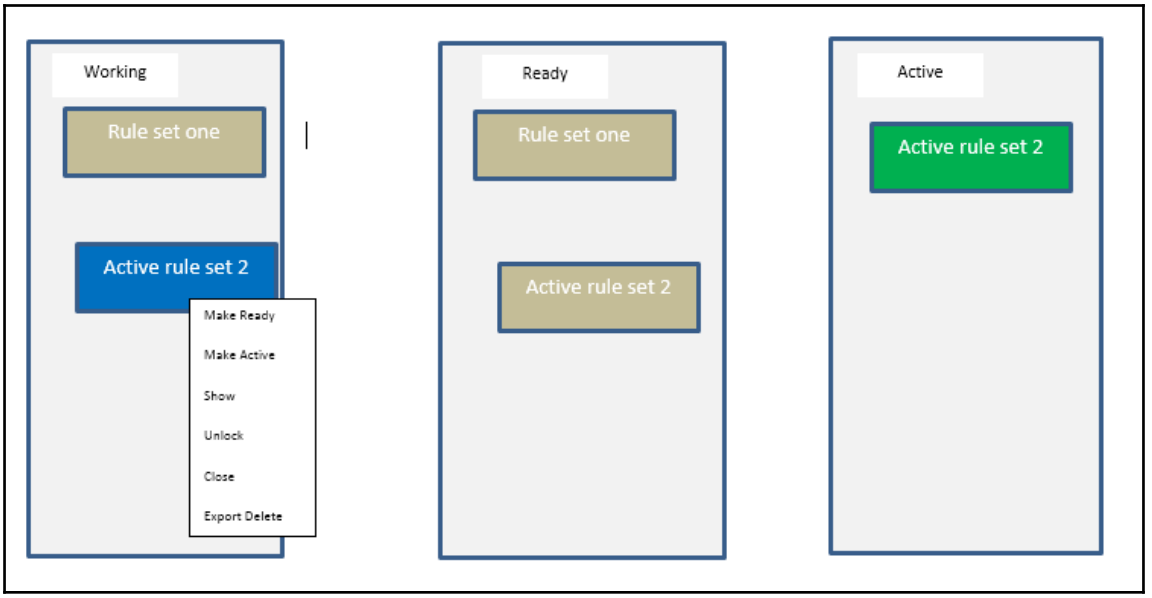

Alert Details
Alert Name: *
TJ Alert
Enable alert
Severity: *
Critical
Table:
DBC.TransientJournal
Current Perm
>
1000
MB
Skew
>
90
%
Alert Action
Action: *
Administrator Default
Do not run twice in
90
minutes
Message:
TJ alter. Check Rollback sessions.

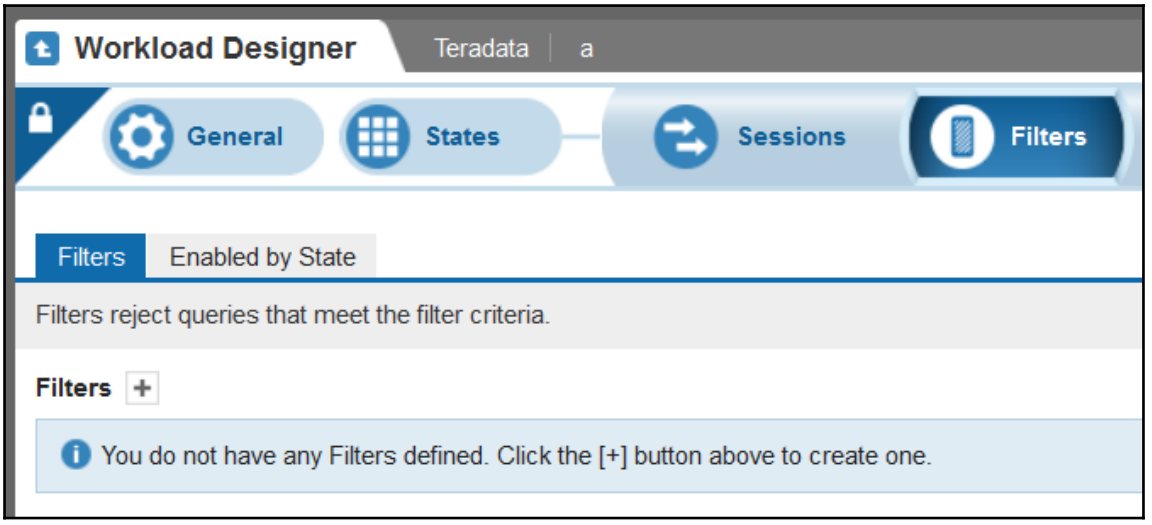
Alert Action
Abort Session
Lower Priority
Notify session user
Notify session proxy user

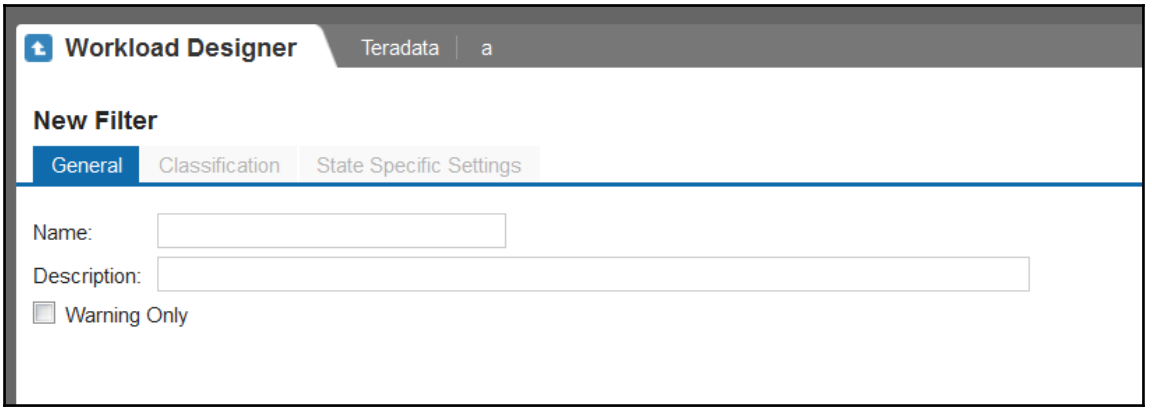
Alert Details
Alert Name: *
TableSpace TJ alert
Enable alert
Severity: *
High

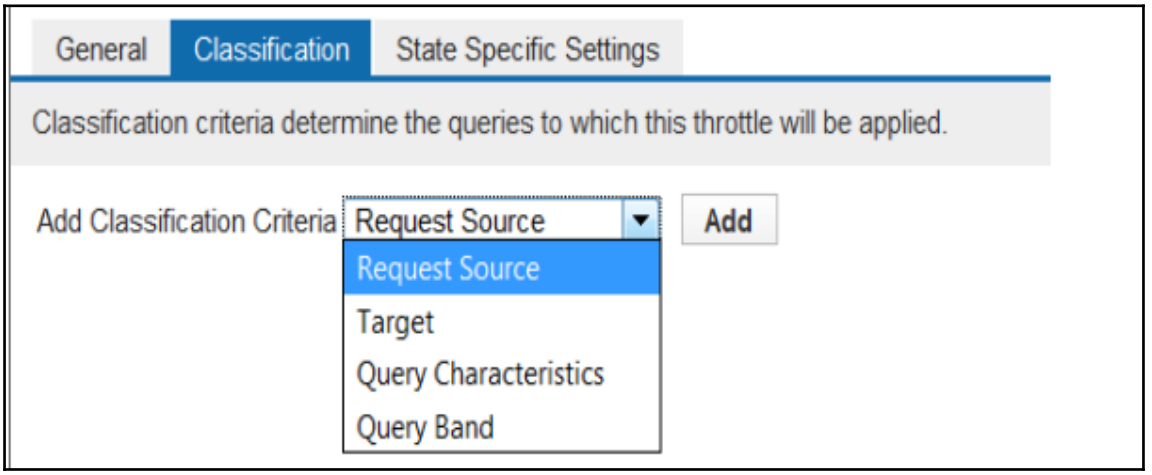

Core Hours Details
Days:
Monday
through
Friday
Time:
24 hours
9:00 AM
through
5:00 PM
Core Hours:
Monday through Friday, 9:00 AM to 5:00 PM
Evening Hours:
Monday through Friday, 5:00 PM to 9:00 AM
Weekend Hours:
Friday 5:00 PM through Monday 9:00 AM
Time Zone:
(GMT+00:00) GMT (no daylight saving)

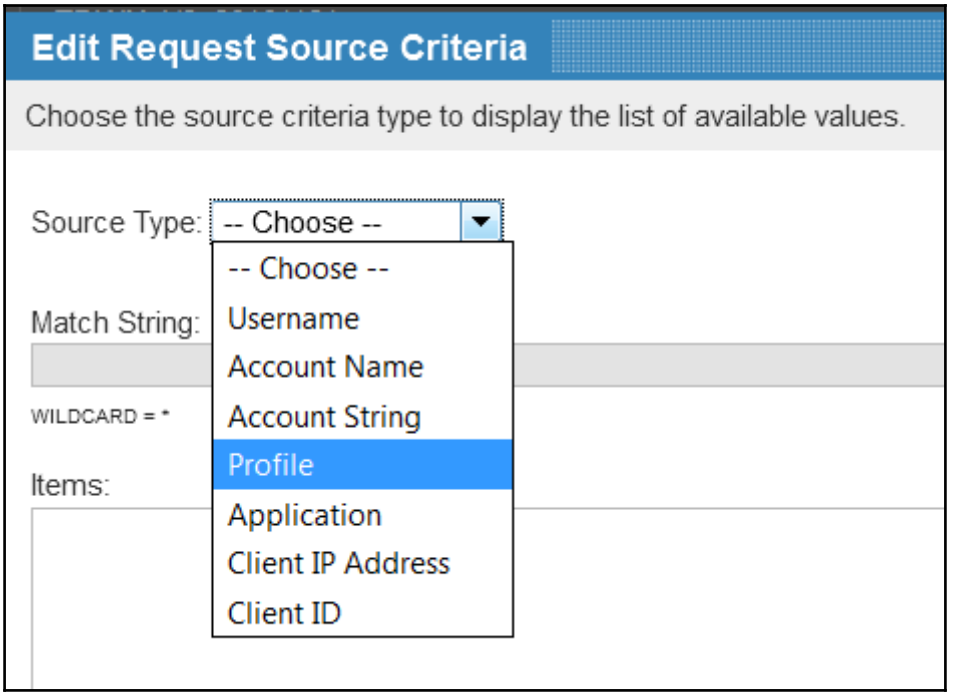

General
States
Sessions
Filters

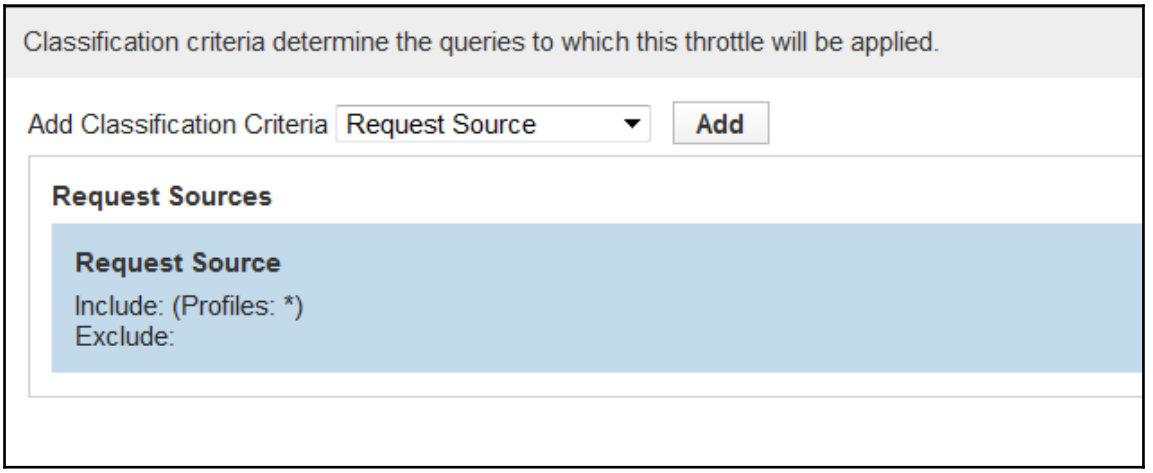

Working
Rule set one
Active rule set 2
Make Ready
Make Active
Show
Unlock
Close
Export Delete
Ready
Rule set one
Active rule set 2
Active
Active rule set 2

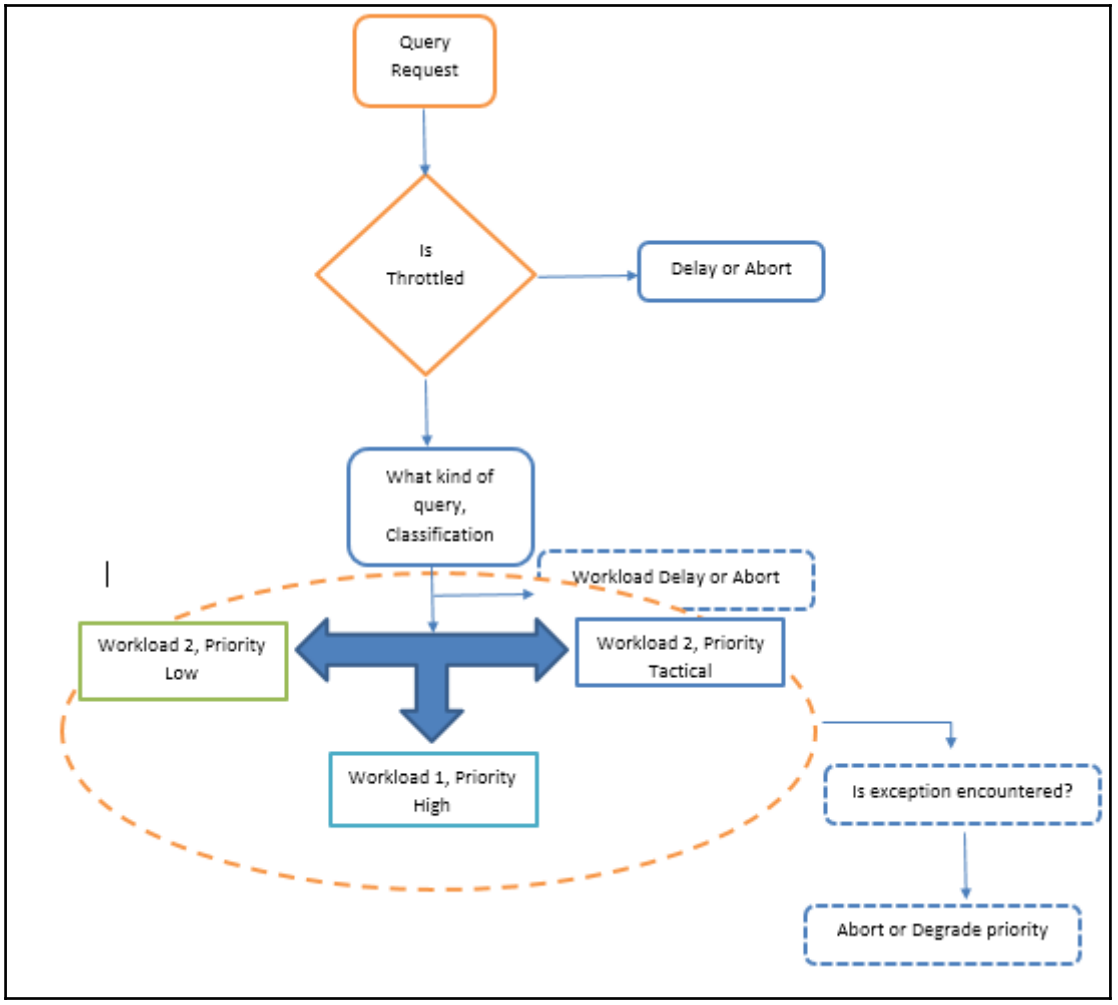

Workload Designer
Teradata
a
General
States
Sessions
Filters
Filters
Enabled by State
Filters reject queries that meet the filter criteria.
Filters
You do not have any Filters defined. Click the [+] button above to create one.


Workload Designer
Teradata
a
New Filter
General
Classification
State Specific Settings
Name:
Description:
Warning Only

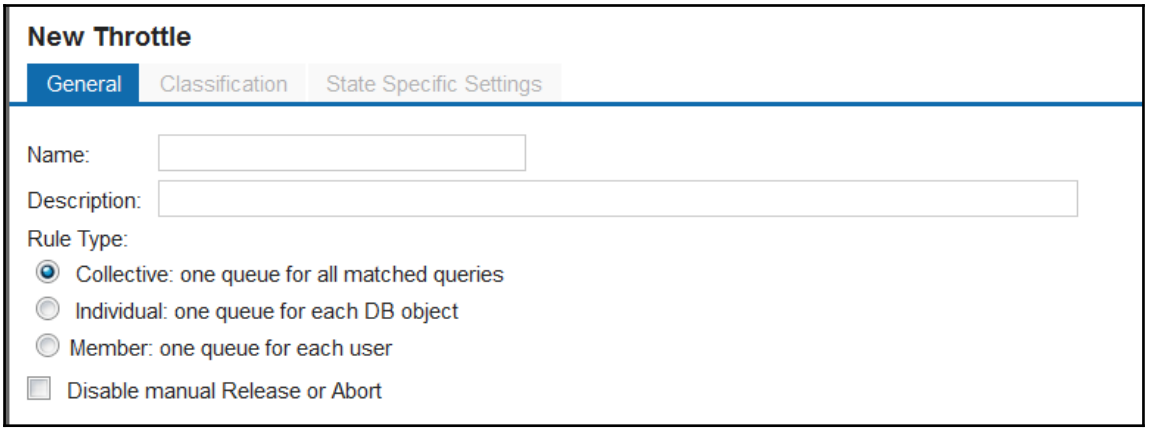

General
Classification
State Specific Settings
Classification criteria determine the queries to which this throttle will be applied.
Add Classification Criteria
Request Source
Add
Request Source
Target
Query Characteristics
Query Band

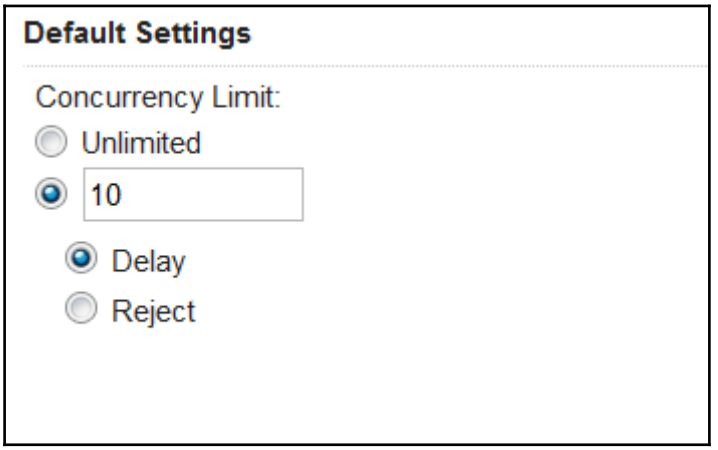

Edit Request Source Criteria
Choose the source criteria type to display the list of available values.
Source Type:
-- Choose --
Match String:
WILDCARD = *
Items:
-- Choose --
Username
Account Name
Account String
Profile
Application
Client IP Address
Client ID

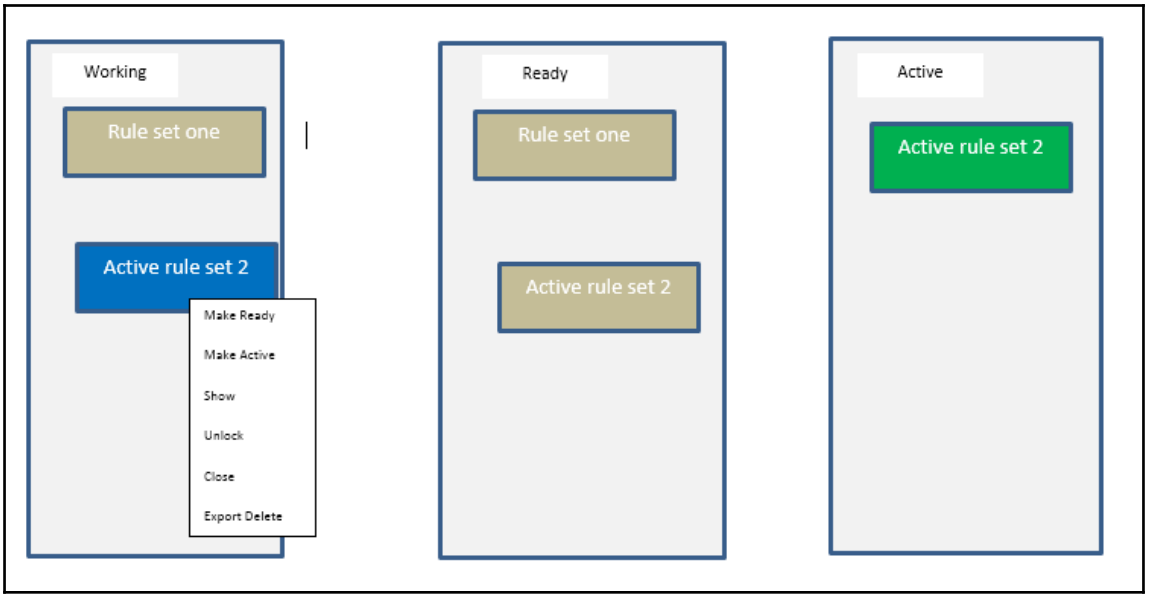

Classification criteria determine the queries to which this throttle will be applied.
Add Classification Criteria
Request Source
Add
Request Sources
Request Source
Include: (Profiles: *)
Exclude:


Query Request
Is Throttled
Delay or Abort
What kind of query, Classification
Workload Delay or Abort
Workload 2, Priority Low
Workload 2, Priority Tactical
Workload 1, Priority High
Is exception encountered?
Abort or Degrade priority

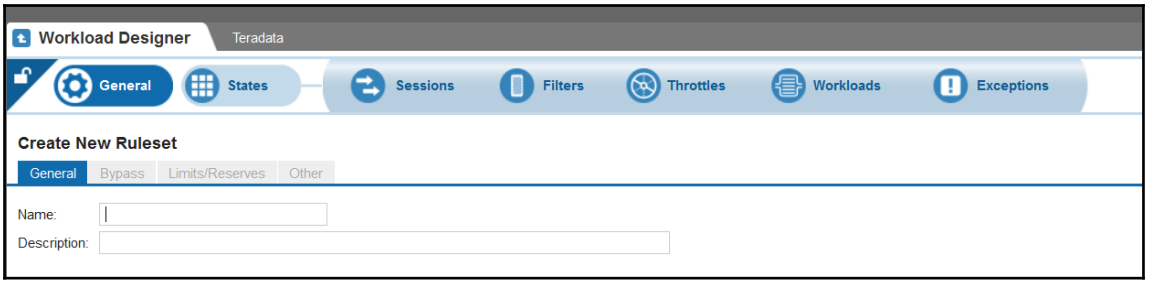
General
States
Sessions
Filters
Throttles
Workloads
Exceptions

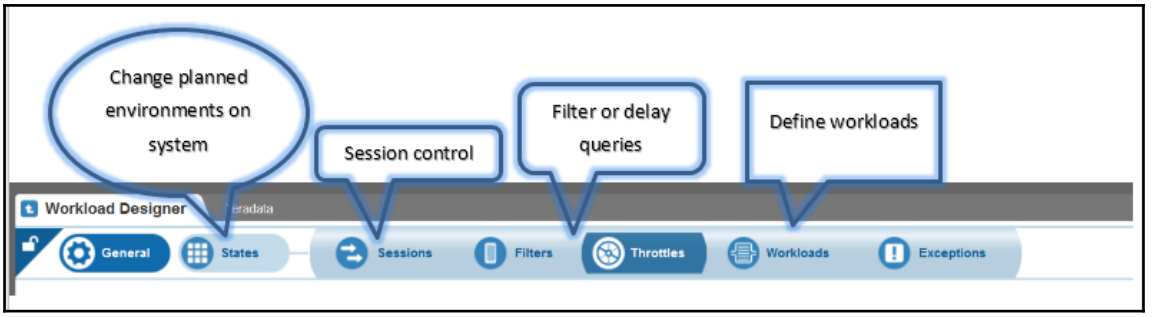

New Throttle
General
Classification
State Specific Settings
Name:
Description:
Rule Type:
Collective: one queue for all matched queries
Individual: one queue for each DB object
Member: one queue for each user
Disable manual Release or Abort

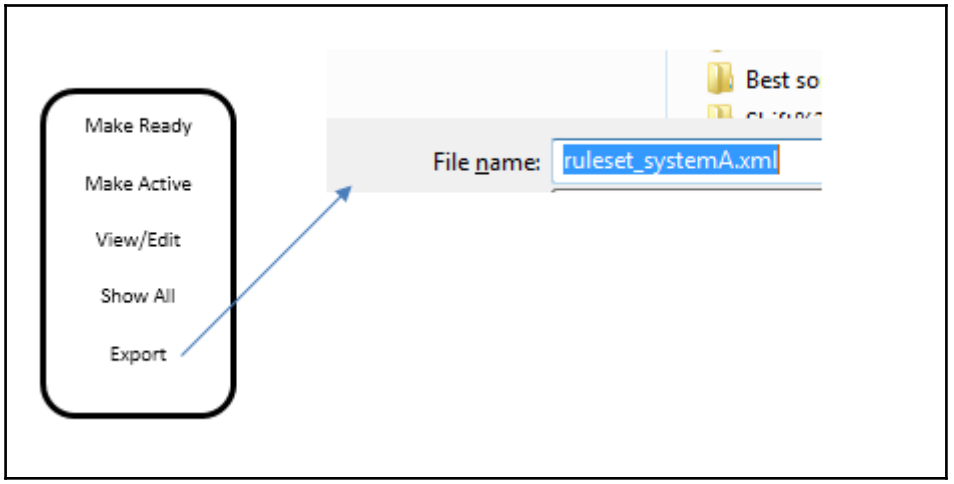

Default Settings
Concurrency Limit:
Unlimited
10
Delay
Reject

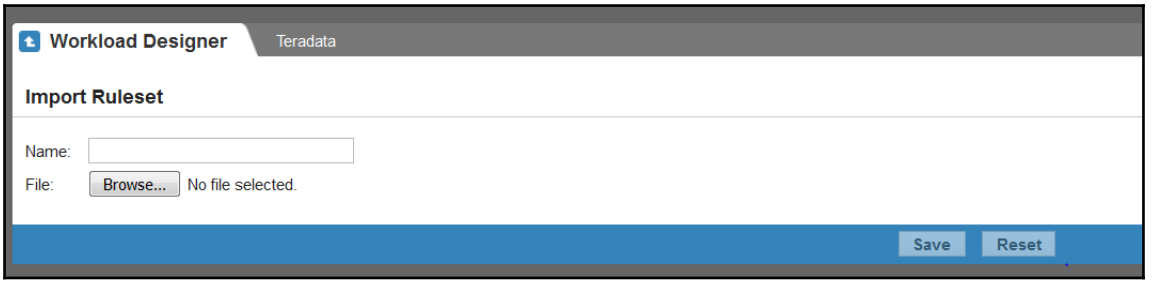

Working
Rule set one
Active rule set 2
Make Ready
Make Active
Show
Unlock
Close
Export Delete
Ready
Rule set one
Active rule set 2
Active
Active rule set 2

Local
Working

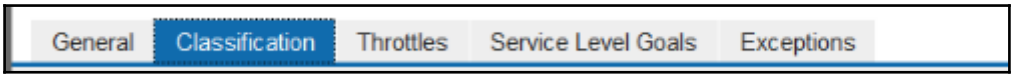

Workload Designer
Teradata
General
States
Sessions
Filters
Throttles
Workloads
Exceptions
Create New Ruleset
General
Bypass
Limits/Reserves
Other
Name:
Description:


Change planned environments on system
Session control
Filter or delay queries
Define workloads
Workload Designer
General
States
Sessions
Filters
Throttles
Workloads
Exceptions

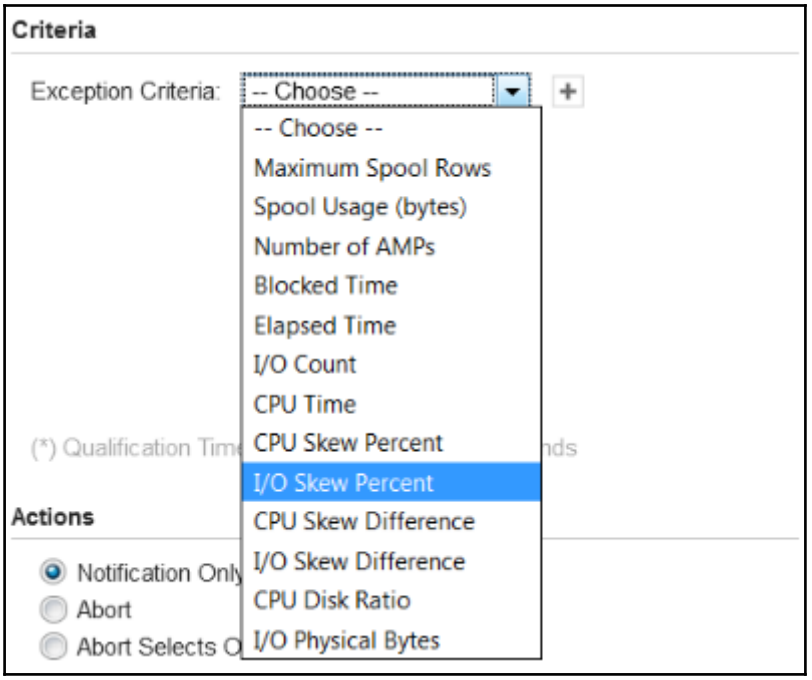

Make Ready
Make Active
View/Edit
Show All
Export
Best so
File name:
ruleset_systemA.xml

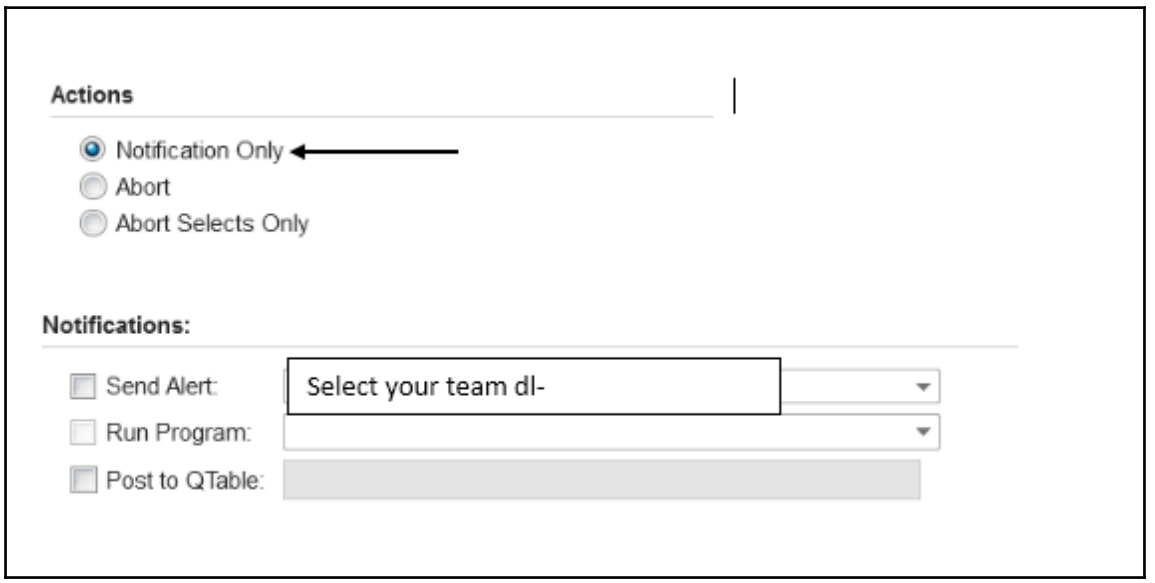

Workload Designer
Teradata
Import Ruleset
Name:
File:
Browse...
No file selected.
Save
Reset

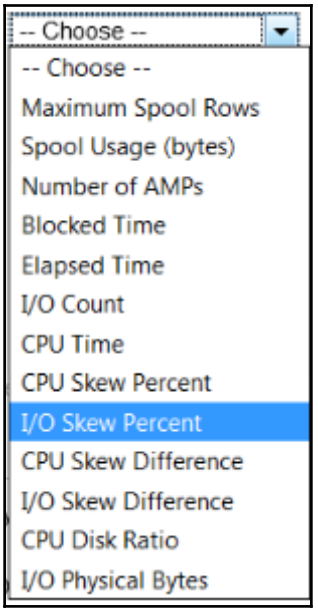
General
States
Sessions
Filters
Throttles
Workloads


General
Classification
Throttles
Service Level Goals
Exceptions

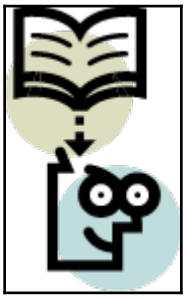
General
Name:
User IO skew notification only
Description:
user io skew

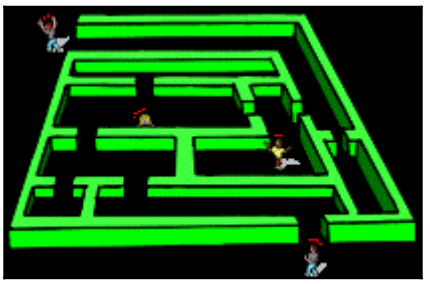

Criteria
Exception Criteria:
-- Choose --
-- Choose --
Maximum Spool Rows
Spool Usage (bytes)
Number of AMPs
Blocked Time
Elapsed Time
I/O Count
CPU Time
CPU Skew Percent
I/O Skew Percent
CPU Skew Difference
I/O Skew Difference
CPU Disk Ratio
I/O Physical Bytes
(*) Qualification Time
nds
Actions
Notification Only
Abort
Abort Selects O


Actions
Notification Only
Abort
Abort Selects Only
Notifications:
Send Alert:
Select your team dl-
Run Program:
Post to QTable:

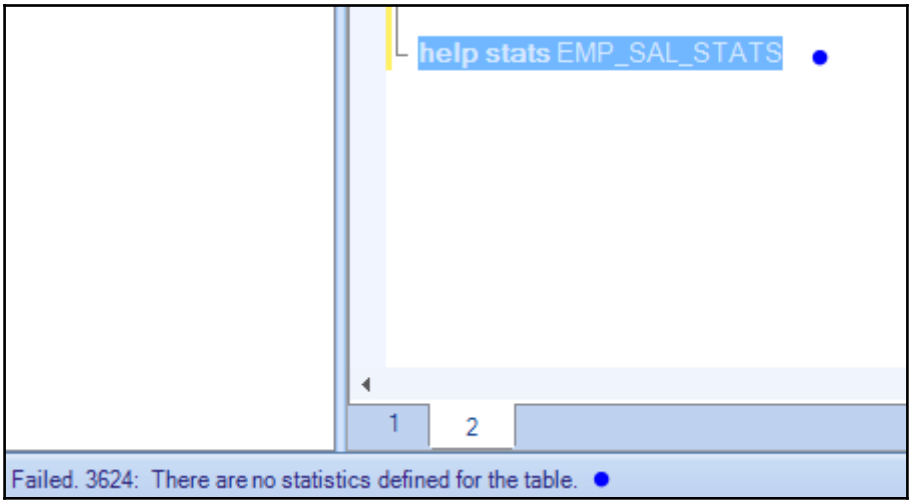

-- Choose --
-- Choose --
Maximum Spool Rows
Spool Usage (bytes)
Number of AMPs
Blocked Time
Elapsed Time
I/O Count
CPU Time
CPU Skew Percent
I/O Skew Percent
CPU Skew Difference
I/O Skew Difference
CPU Disk Ratio
I/O Physical Bytes

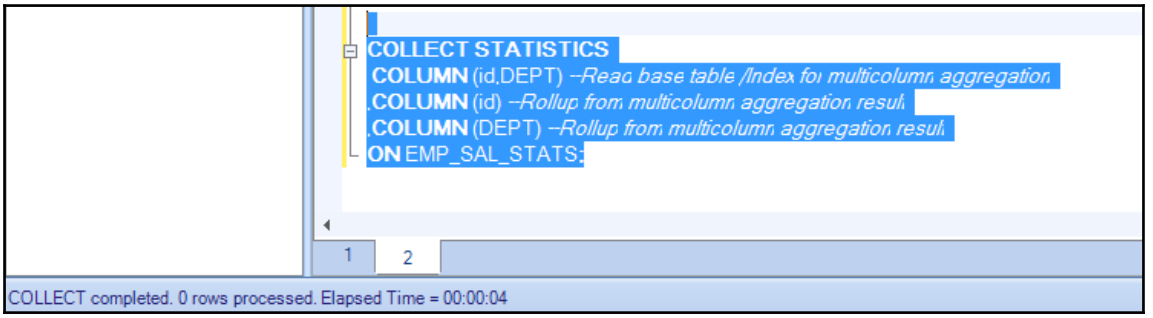
Chapter 8: Collect Statistics the Better Way





Statistics Version	Teradata Database Release Introduced	Description
1	V2R1	Initial version. Supports up to 100 intervals.
2	V2R5	Added sampling fields to interval 0. Supports up to 100 intervals.
3	12.0	Added new fields NumAllNulls and AvgAMPRPV to interval 0. Raised the default max detailed intervals to 200.
4	12.0.3	Added new fields AllAMPSampleEst and OneAMPSampleEst to interval 0 for better data growth detection.
5	14.0	New histogram layout, larger value length, modifiable number of intervals, history records and SUMMARY statistics.
6	14.10 (with NoDot0BackDown set to TRUE)	New fields added to interval 0 to support UDI counts.

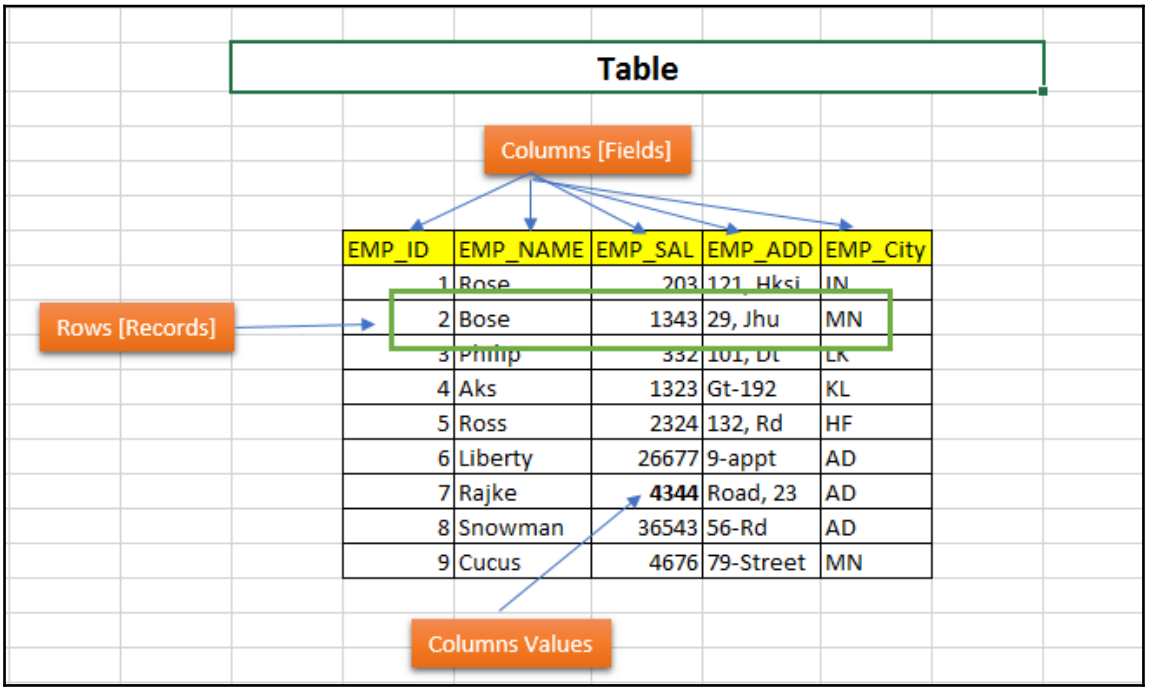


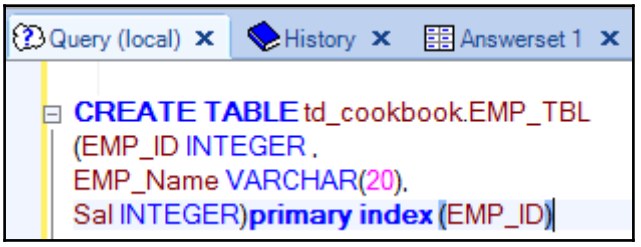


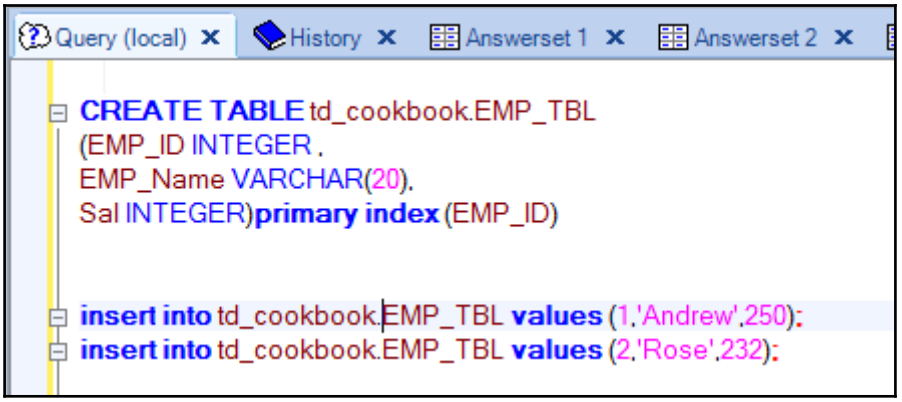
Answerset 1

	DataBaseName	TableName	CurrentPerm	MaxPerm	AvgPerm	SkewPercent
1	AP	athelete_data	2,377,728.00	1,188,864.00	1,188,864.00	0.00
2	AP	countries	6,144.00	3,072.00	3,072.00	0.00
3	DBC	AccessRights	1,191,936.00	595,968.00	595,968.00	0.00
4	DBC	AccessRights_TD14	34,816.00	17,408.00	17,408.00	0.00
5	DBC	AccLogRuleTbl	6,144.00	3,072.00	3,072.00	0.00
6	DBC	AccLogRuleTbl_TD13	6,144.00	3,072.00	3,072.00	0.00
7	DBC	AccLogRuleTbl_TD14	6,144.00	3,072.00	3,072.00	0.00
8	DBC	AccLogTbl	3,072.00	1,536.00	1,536.00	0.00
9	DBC	AccLogTbl_TD14	3,072.00	1,536.00	1,536.00	0.00
10	DBC	Accounts	6,144.00	3,072.00	3,072.00	0.00
11	DBC	Acctg	14,336.00	7,168.00	7,168.00	0.00
12	DBC	ArchiveLoggingObjsTbl	2,048.00	1,024.00	1,024.00	0.00
13	DBC	AsgdSecConstraints	2,048.00	1,024.00	1,024.00	0.00

Chapter 9: Application and OPS DBA Insight






Query (local)
History
Answerset 1
Answerset 2
CREATE TABLE td_cookbook.EMP_TBL
(EMP_ID INTEGER ,
EMP_Name VARCHAR(20),
Sal INTEGER)primary index (EMP_ID)
insert into td_cookbook.EMP_TBL values (1,'Andrew',250);
insert into td_cookbook.EMP_TBL values (2,'Rose',232);

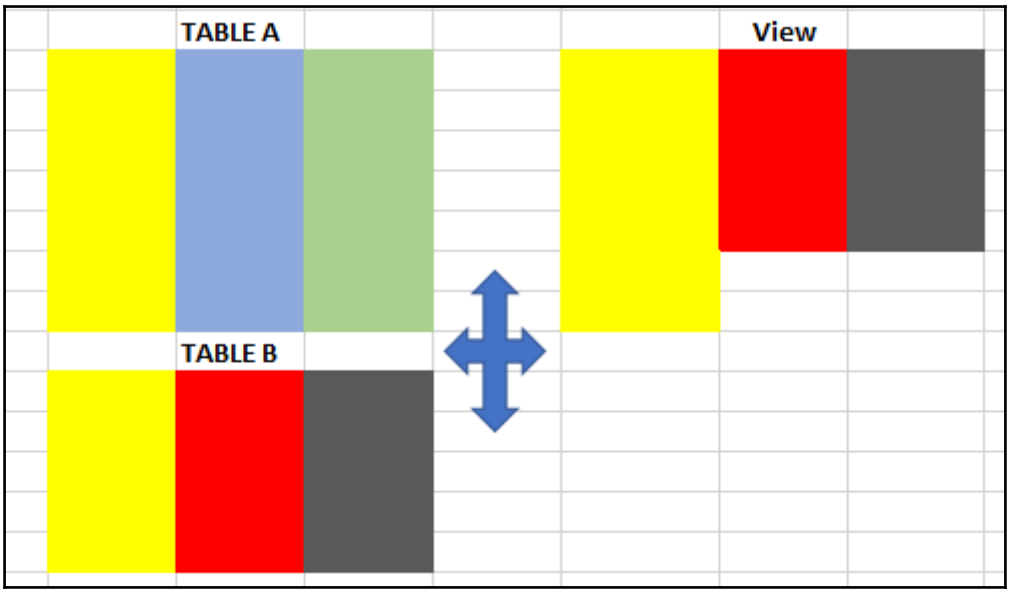
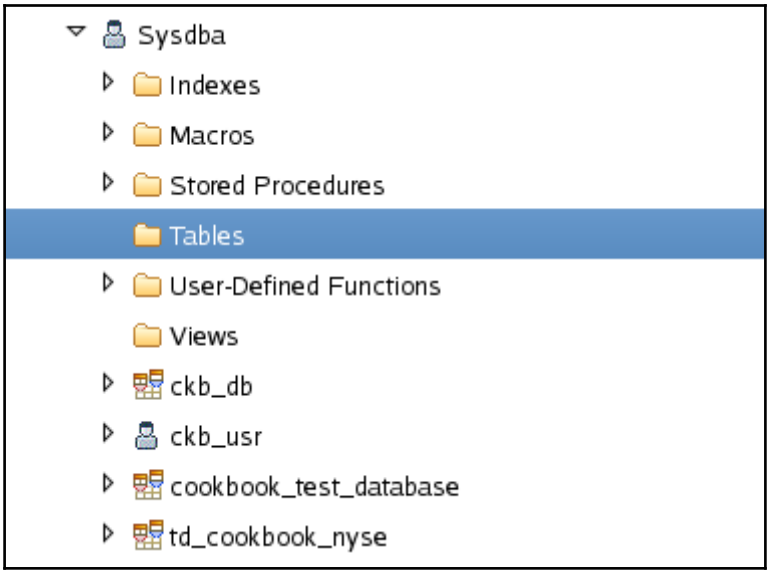


TABLE A
View
TABLE B



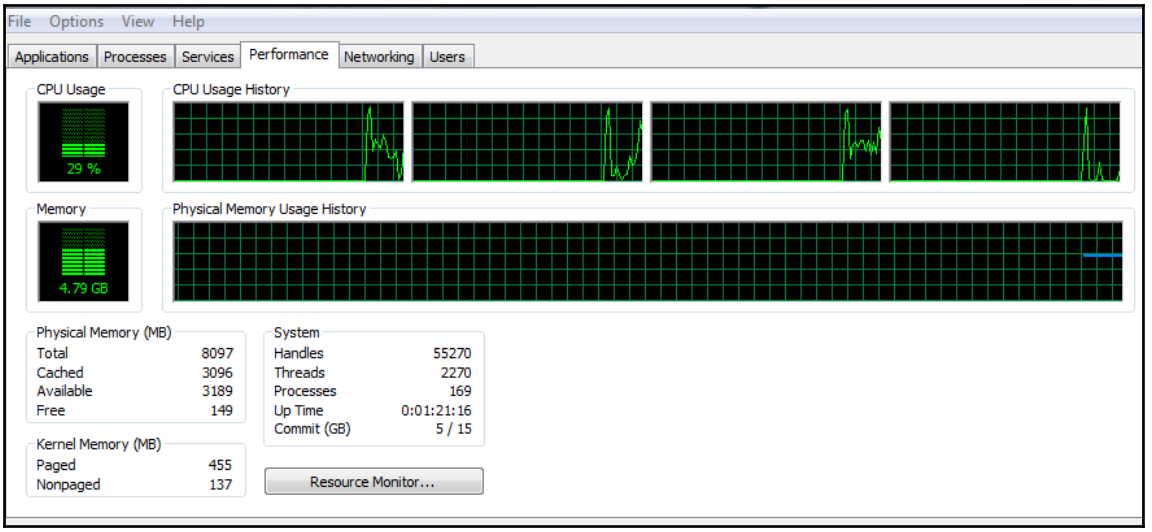
EMP_ID	EMP_DEPT	DEPT_CITY
1032	2	4

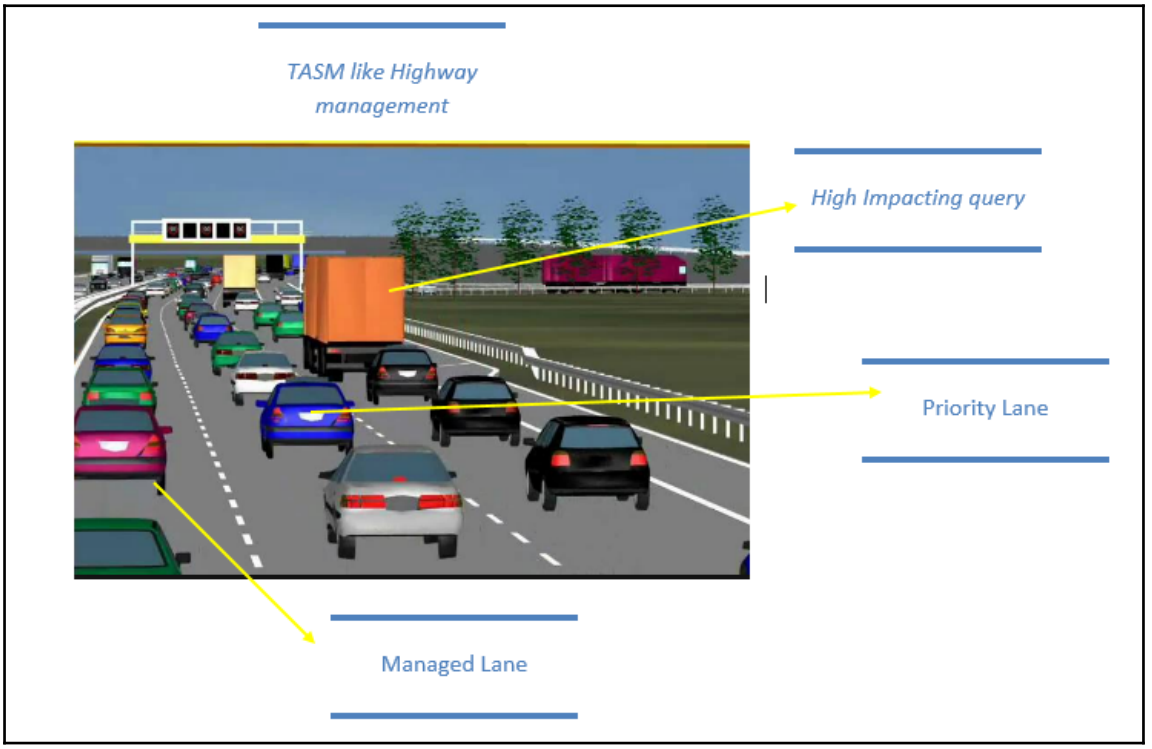
```
sel * from dbc.tables where tablekind='V';
```

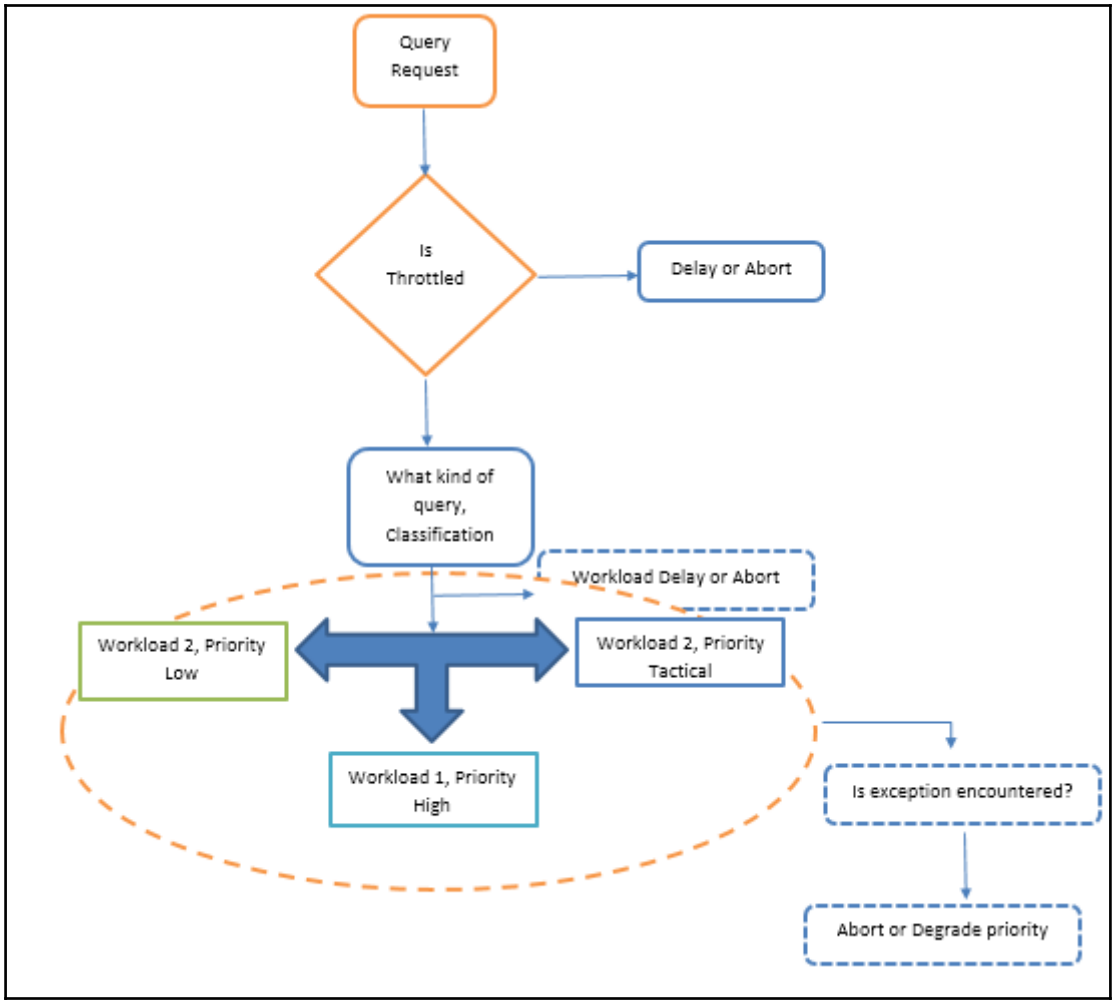
Teradata Result Set Viewer | Navigator

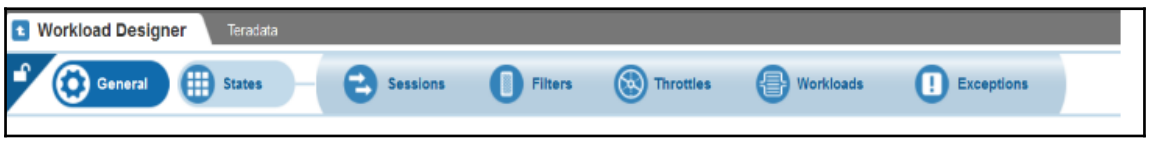
Result Set - SQL Editor 1 (1) | Result Set - SQL Editor 1 (2) | Result Set - SQL Editor 1 (3)

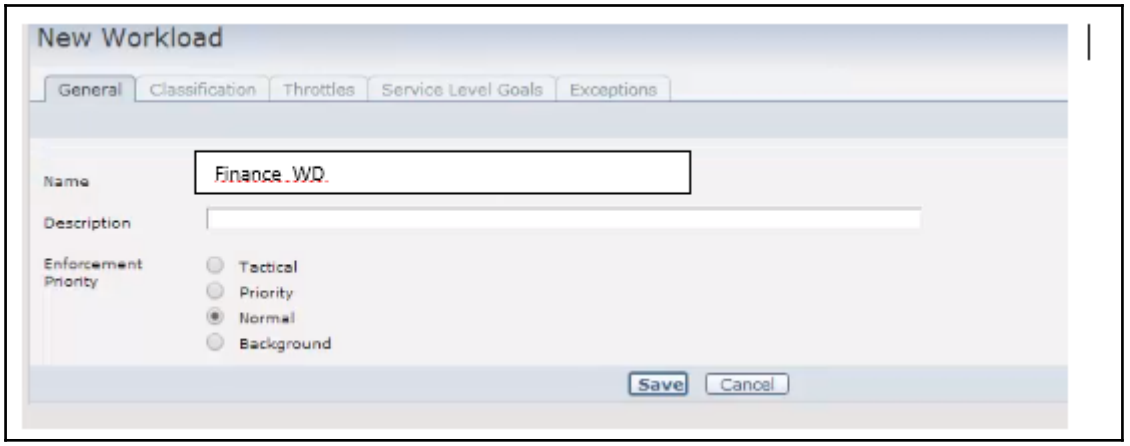
	DatabaseName	TableName	Version	TableKind	ProtectionType	JournalFlag	CreatorName	RequestText
1	DBC	QryLogExcepti...	1	V	F	NN	DBC	REPLACE VI...
2	DBC	AccountInfoV_...	1	V	F	NN	DBC	REPLACE VI...
3	DBC	SHOWCOLCH...	1	V	F	NN	DBC	REPLACE VI...
4	DBC	TableSizeV	1	V	F	NN	DBC	REPLACE VI...
5	SYSUIF	UIF_V	1	V	F	NN	DBC	REPLACE VI...
6	DBC	Databases2V_...	1	V	F	NN	DBC	REPLACE VI...
7	DBC	QryLogExplain...	1	V	F	NN	DBC	REPLACE VI...
8	DBC	CostProfileVal...	1	V	F	NN	DBC	REPLACE VI...
9	DBC	ZoneGuestsVX	1	V	F	NN	DBC	REPLACE VI...
10	DBC	DatabasesV_SZ	1	V	F	NN	DBC	REPLACE VI...

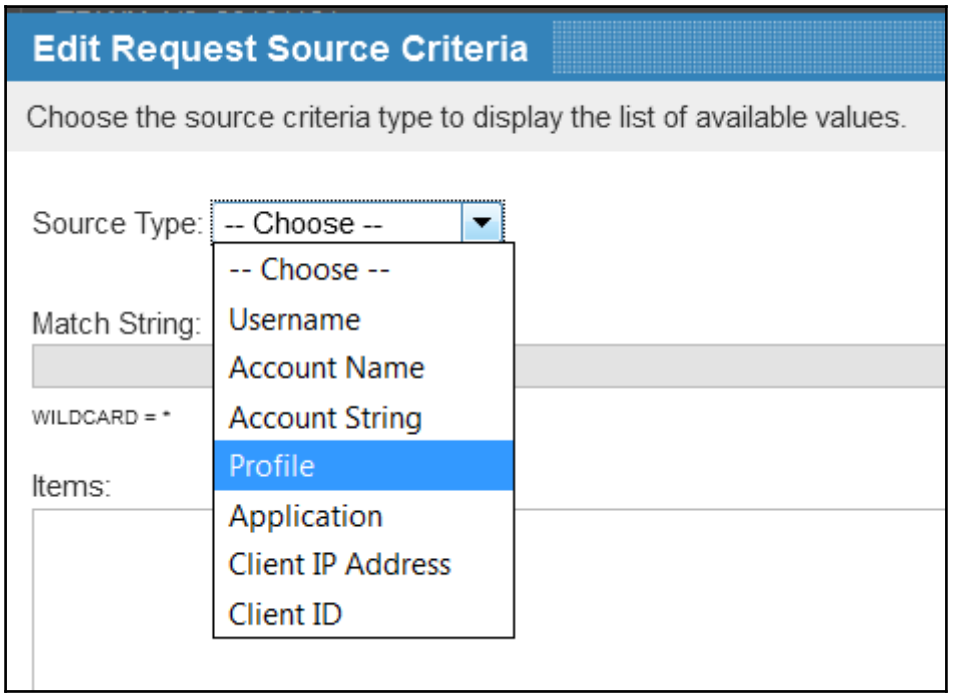

File Options View Help
Applications Processes Services Performance Networking Users
CPU Usage
29 %
CPU Usage History
Memory
4.79 GB
Physical Memory Usage History
Physical Memory (MB)
Total 8097
Cached 3096
Available 3189
Free 149
Kernel Memory (MB)
Paged 455
Nonpaged 137
System
Handles 55270
Threads 2270
Processes 169
Up Time 0:01:21:16
Commit (GB) 5 / 15
Resource Monitor...

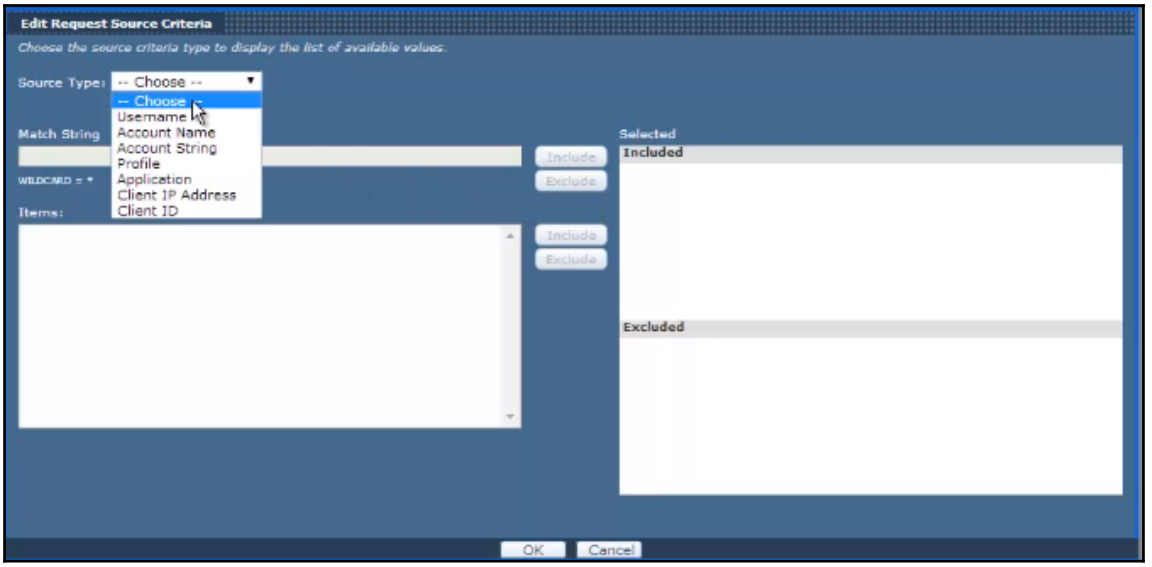

TASM like Highway management
High Impacting query
Priority Lane
Managed Lane

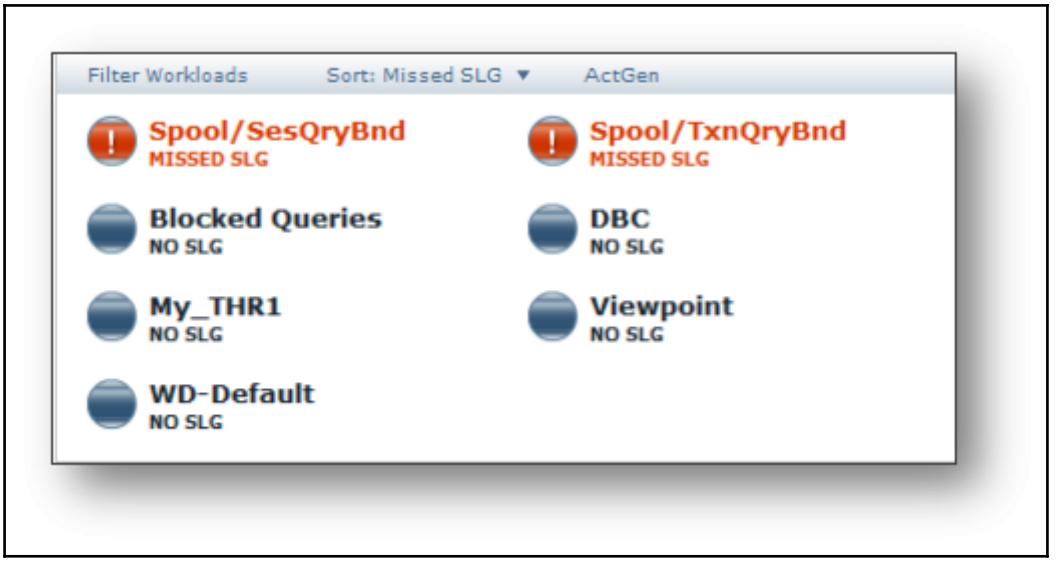

Query Request
Is Throttled
Delay or Abort
What kind of query, Classification
Workload Delay or Abort
Workload 2, Priority Low
Workload 2, Priority Tactical
Workload 1, Priority High
Is exception encountered?
Abort or Degrade priority


Workload Designer
Teradata
General
States
Sessions
Filters
Throttles
Workloads
Exceptions

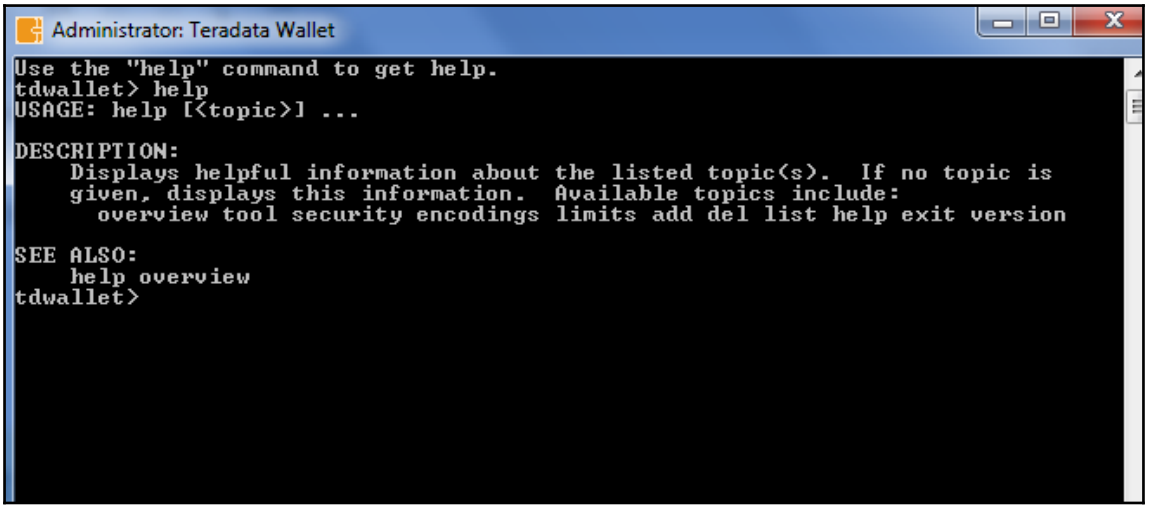

New Workload
General
Classification
Throttles
Service Level Goals
Exceptions
Name
Finance_WD
Description
Enforcement Priority
Tactical
Priority
Normal
Background
Save
Cancel


Edit Request Source Criteria
Choose the source criteria type to display the list of available values.
Source Type:
-- Choose --
Match String:
WILDCARD = *
Items:
-- Choose --
Username
Account Name
Account String
Profile
Application
Client IP Address
Client ID


Edit Request Source Criteria
Choose the source criteria type to display the list of available values.
Source Type:
-- Choose --
-- Choose --
Username
Account Name
Account String
Profile
Application
Client IP Address
Client ID
Match String
WILDCARD = *
Items:
Include
Exclude
Include
Exclude
Selected
Included
Excluded
OK
Cancel


Filter Workloads
Sort: Missed SLG
ActGen
Spool/SesQryBnd
MISSED SLG
Spool/TxnQryBnd
MISSED SLG
Blocked Queries
NO SLG
DBC
NO SLG
My_THR1
NO SLG
Viewpoint
NO SLG
WD-Default
NO SLG

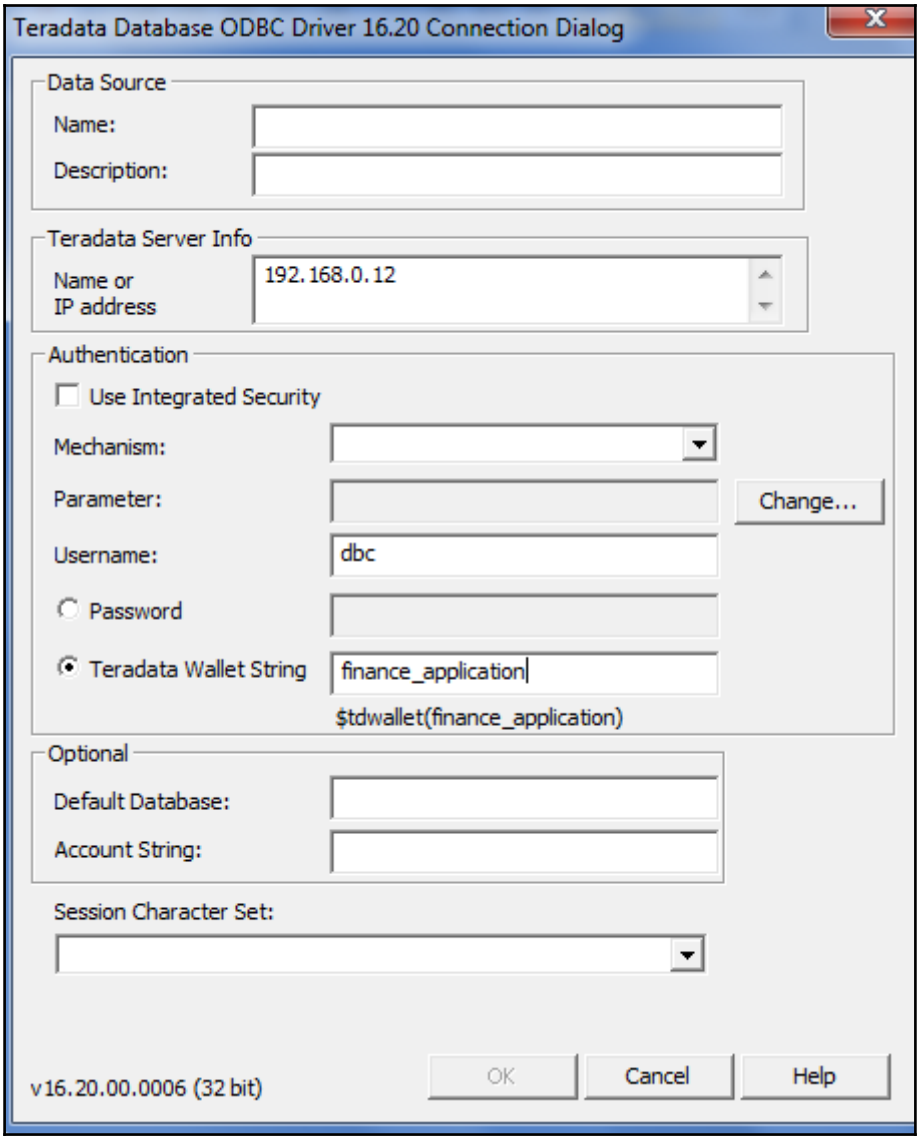
Programs (1)
Teradata Wallet


Administrator: Teradata Wallet
Use the "help" command to get help.
tdwallet> help
USAGE: help [<topic>] ...
DESCRIPTION:
Displays helpful information about the listed topic(s). If no topic is
given, displays this information. Available topics include:
overview tool security encodings limits add del list help exit version
SEE ALSO:
help overview
tdwallet>

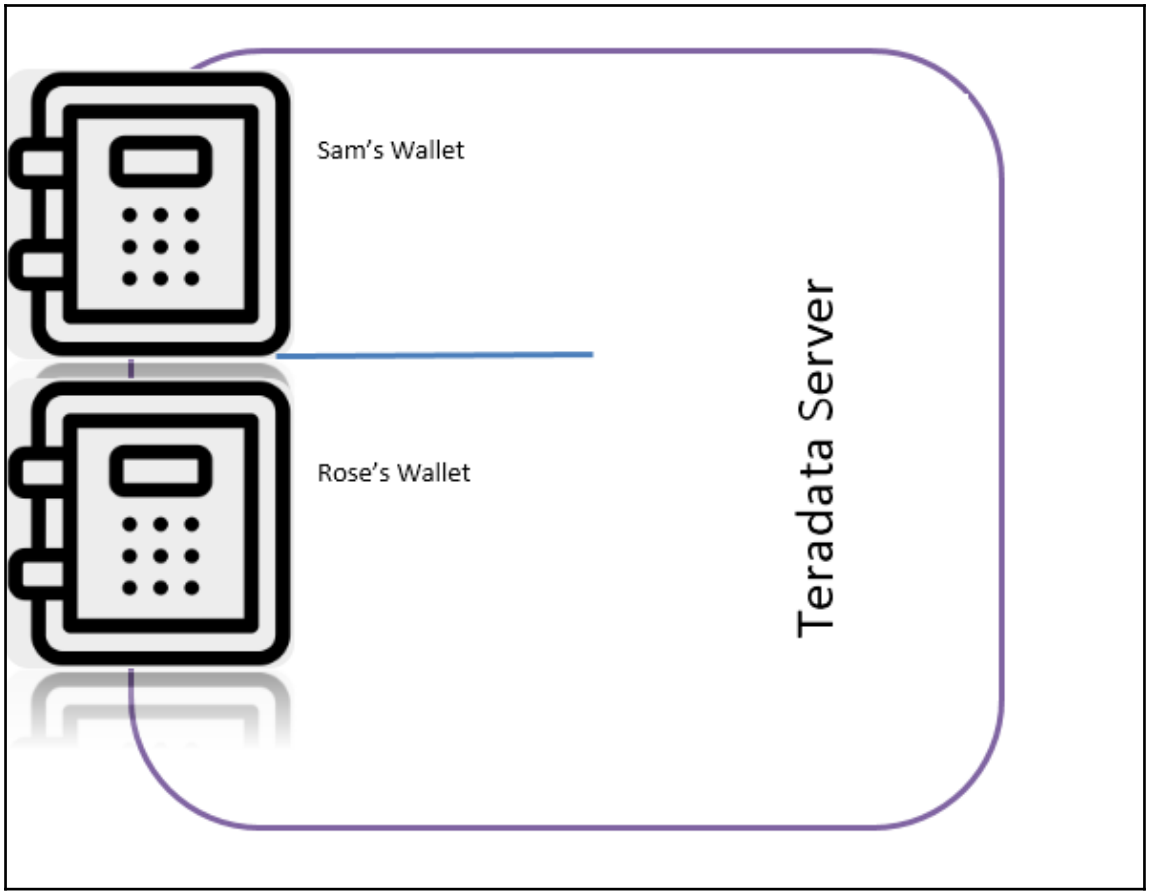
```
tdwallet> add finance_application
Enter desired value for the item named "finance_application":
```

```
SEE ALSO:
    help overview
tdwallet> add finance_application
Enter desired value for the item named "finance_application":
Item named "finance_application" added.
tdwallet>
```

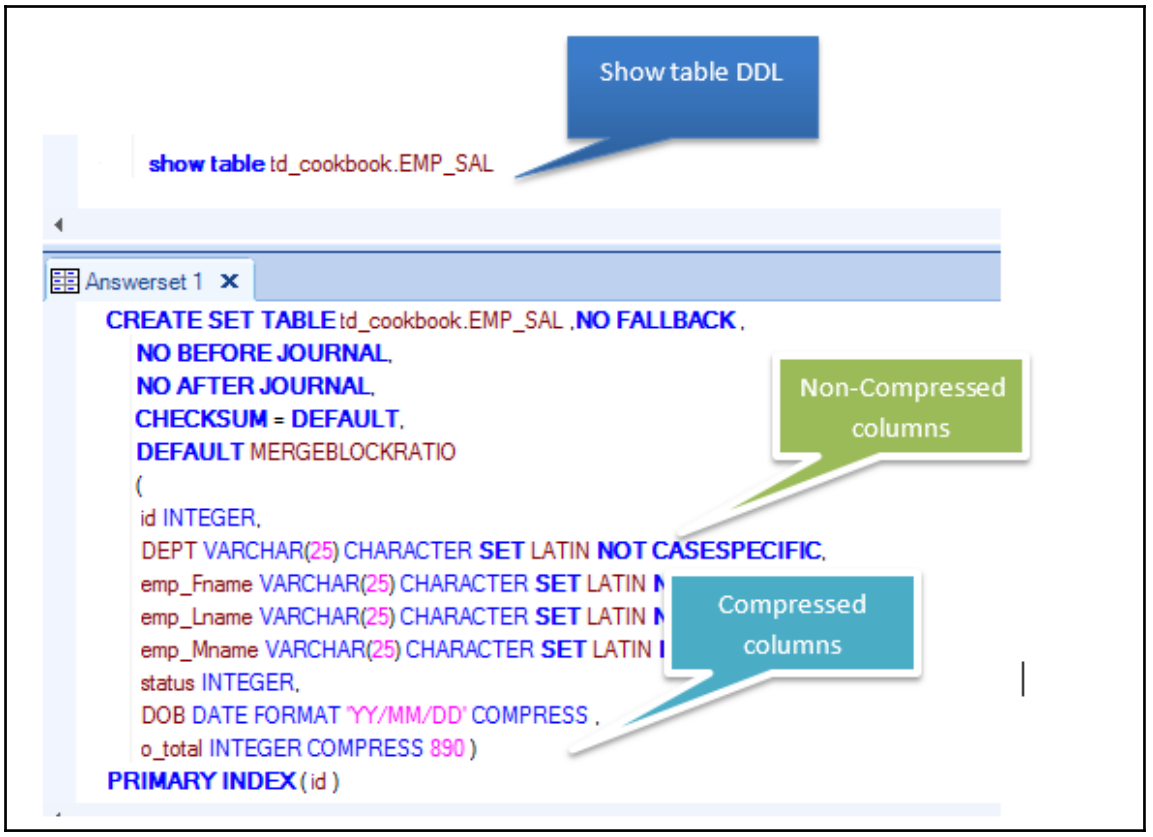
```
 Teradata BTEQ 16.00.00.02 for WIN32. PID: 11552
 Copyright 1984-2016, Teradata Corporation. ALL RIGHTS RESERVED.
 Enter your logon or BTEQ command:
.logon 192.168.0.12/sysdba,$tdwallet(finance_application)
```




```
My $db = DBI->connect("dbi:ODBC:DSN=$tdserver","$finance_application")
```




```
tdwallet> help
USAGE: help [<topic>] ...

DESCRIPTION:
    Displays helpful information about the listed topic(s).  If no topic is
    given, displays this information.  Available topics include:
      overview tool security encodings limits add del list help exit version

SEE ALSO:
    help overview
tdwallet>
```


Show table DDL
show table td_cookbook.EMP_SAL
Answerset 1
CREATE SET TABLE td_cookbook.EMP_SAL ,NO FALLBACK ,
NO BEFORE JOURNAL,
NO AFTER JOURNAL,
CHECKSUM = DEFAULT,
DEFAULT MERGEBLOCKRATIO
(
id INTEGER,
DEPT VARCHAR(25) CHARACTER SET LATIN NOT CASESPECIFIC,
emp_Fname VARCHAR(25) CHARACTER SET LATIN N
emp_Lname VARCHAR(25) CHARACTER SET LATIN N
emp_Mname VARCHAR(25) CHARACTER SET LATIN I
status INTEGER,
DOB DATE FORMAT 'YY/MM/DD' COMPRESS ,
o_total INTEGER COMPRESS 890)
PRIMARY INDEX (id)
Non-Compressed columns
Compressed columns

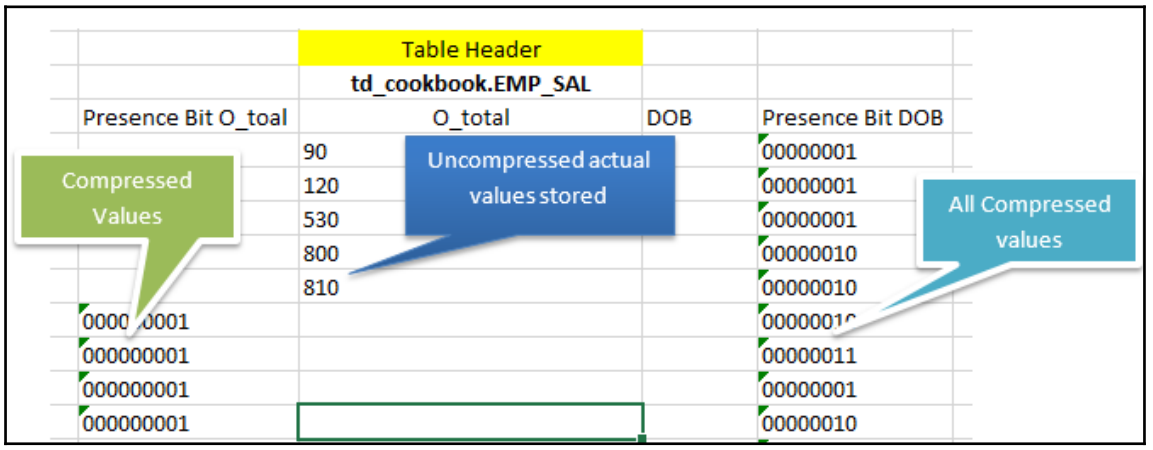
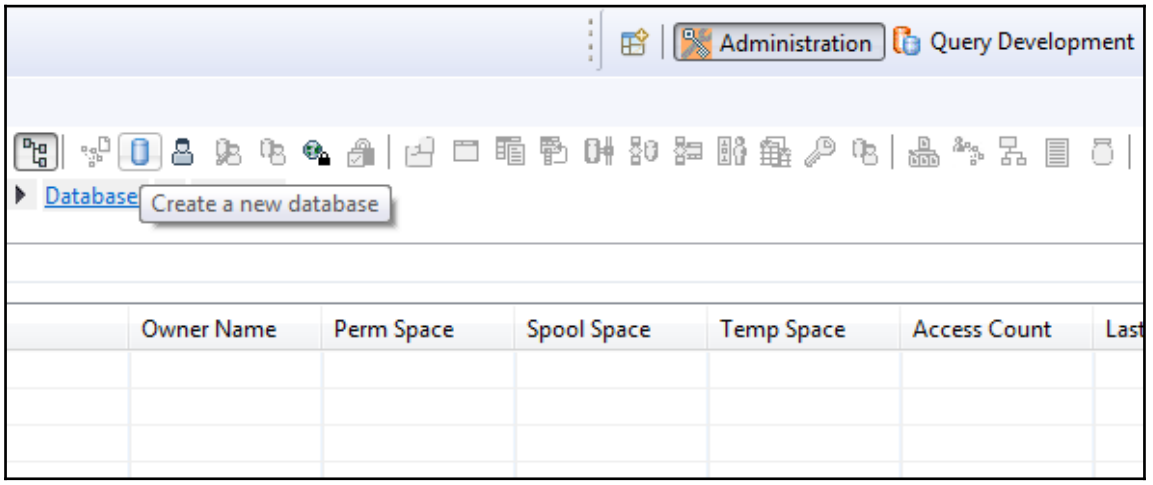
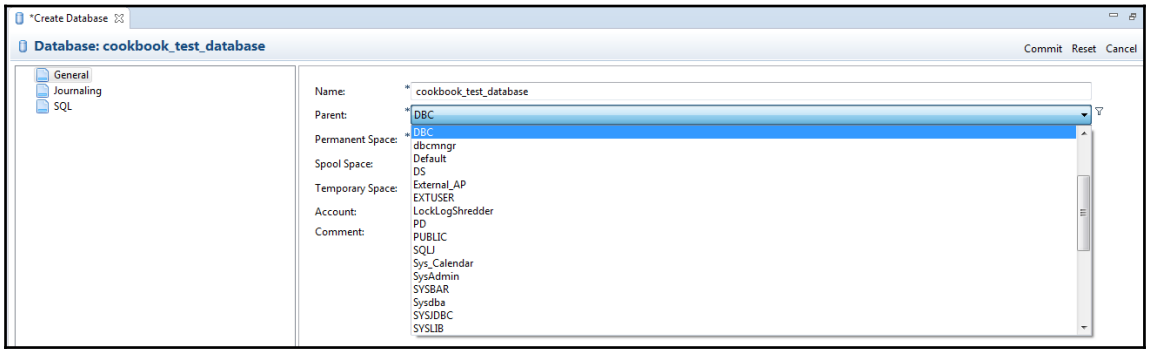
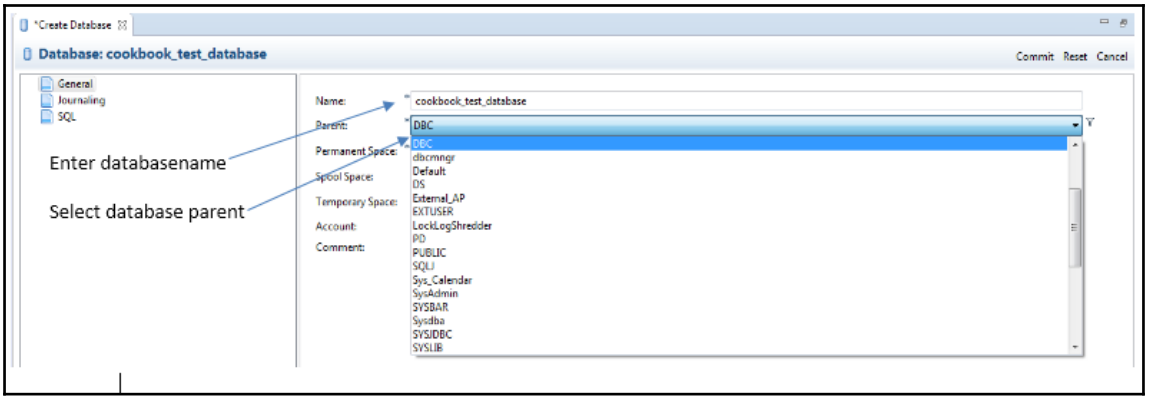


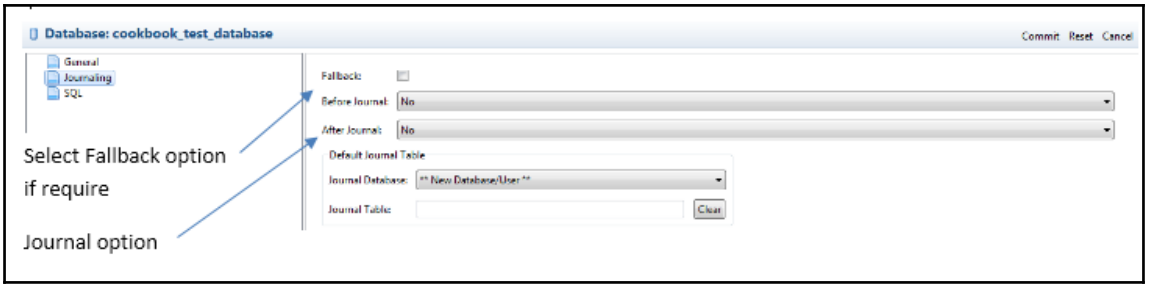
Table Header
td_cookbook.EMP_SAL
Presence Bit O_toal
O_total
DOB
Presence Bit DOB
90
120
530
800
810
00000001
00000001
00000001
00000010
00000010
000000001
000000001
000000001
00000011
00000001
00000010
Compressed Values
Uncompressed actual values stored
All Compressed values

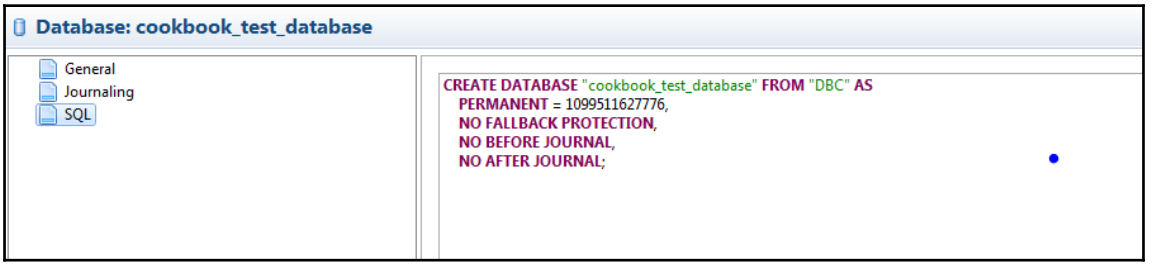
Chapter 10: Application and OPS DBA Insight

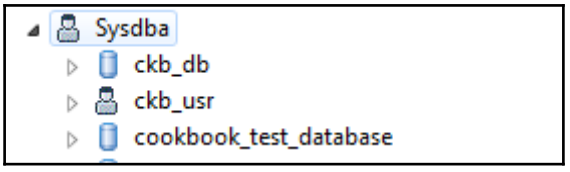


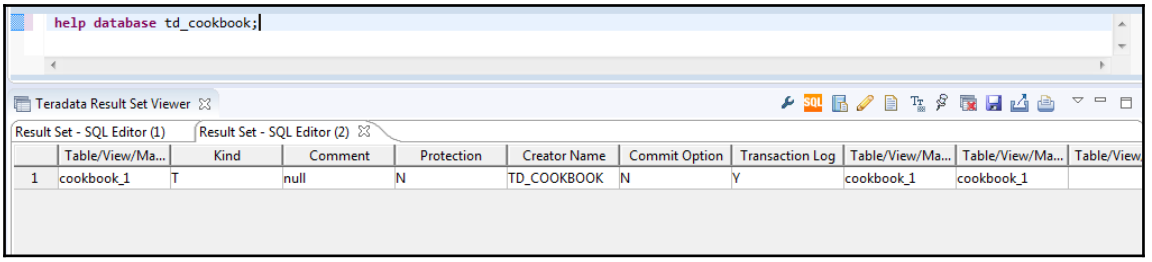


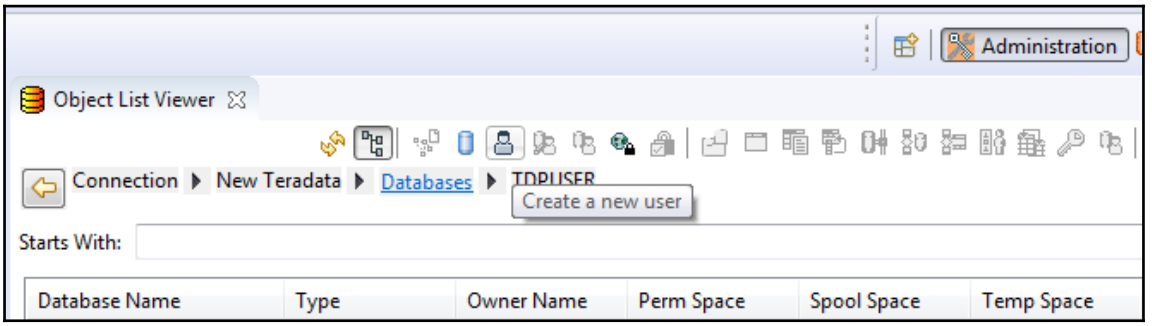

*Create Database
Database: cookbook_test_database
Commit Reset Cancel
General
Journaling
SQL
Name:
cookbook_test_database
Parent:
DBC
Permanent Space:
Spool Space:
Temporary Space:
Account:
Comment:
DBC
dbcmngr
Default
DS
External_AP
EXTUSER
LockLogShredder
PD
PUBLIC
SQLJ
Sys_Calendar
SysAdmin
SYSBAR
Sysdba
SYSJDBC
SYSLIB
Enter databasename
Select database parent

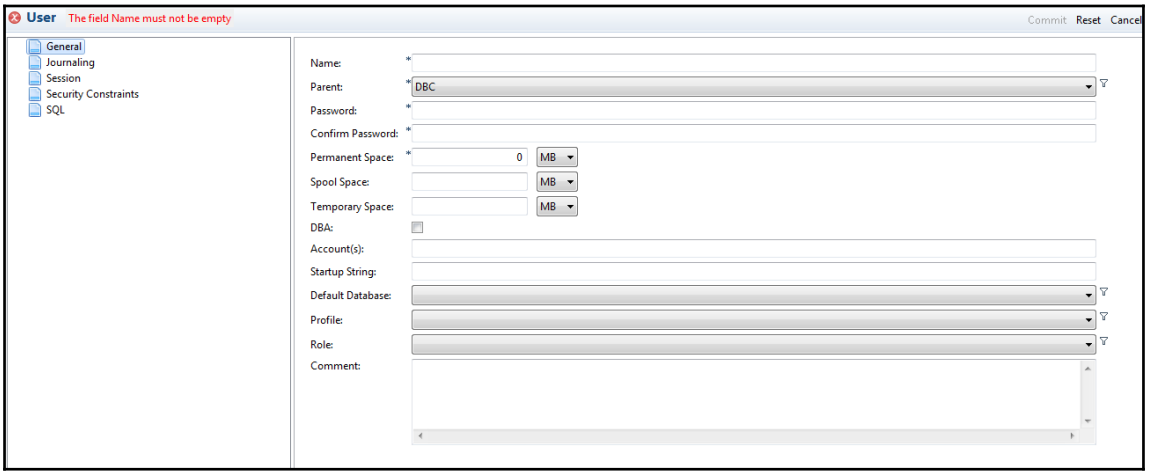

Database: cookbook_test_database
Commit Reset Cancel
General
Journaling
SQL
Fallback:
Before Journal:
No
After Journal:
No
Default Journal Table
Journal Database:
** New Database/User **
Journal Table:
Clear
Select Fallback option
if require
Journal option


Database: cookbook_test_database
General
Journaling
SQL
CREATE DATABASE "cookbook_test_database" FROM "DBC" AS
PERMANENT = 1099511627776,
NO FALLBACK PROTECTION,
NO BEFORE JOURNAL,
NO AFTER JOURNAL;

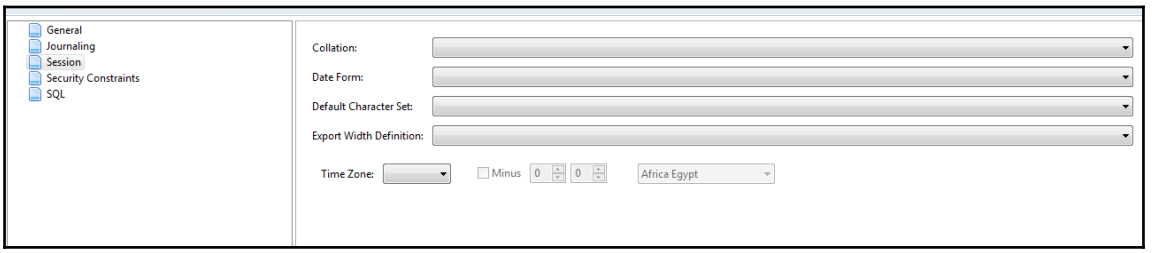

Sysdba
ckb_db
ckb_usr
cookbook_test_database

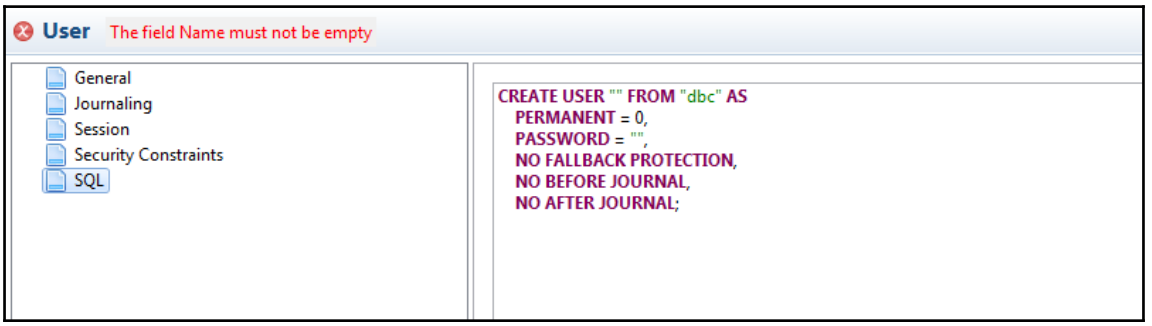

help database td_cookbook;
Teradata Result Set Viewer
Result Set - SQL Editor (1)
Result Set - SQL Editor (2)
Table/View/Ma... Kind Comment Protection Creator Name Commit Option Transaction Log Table/View/Ma... Table/View/Ma... Table/View
1 cookbook_1 T null N TD_COOKBOOK N Y cookbook_1 cookbook_1

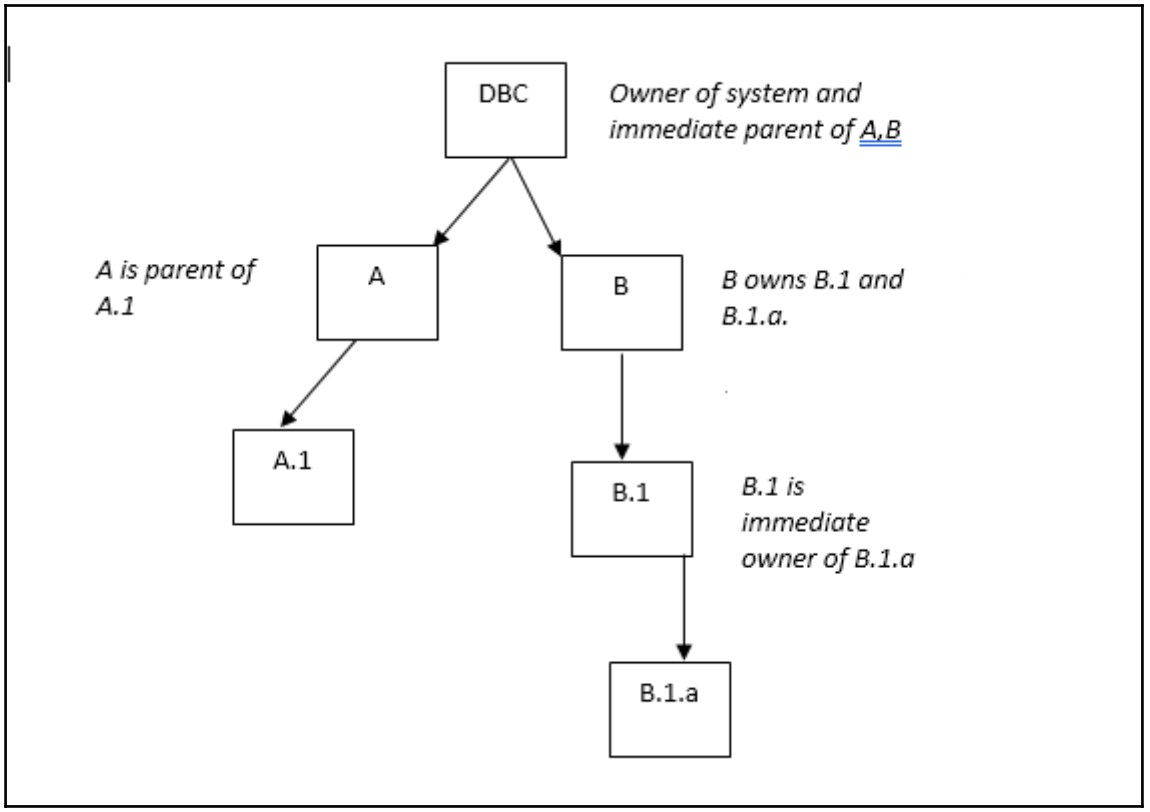

Administration
Object List Viewer
Connection
New Teradata
Databases
TDPUSER
Create a new user
Starts With:
Database Name
Type
Owner Name
Perm Space
Spool Space
Temp Space

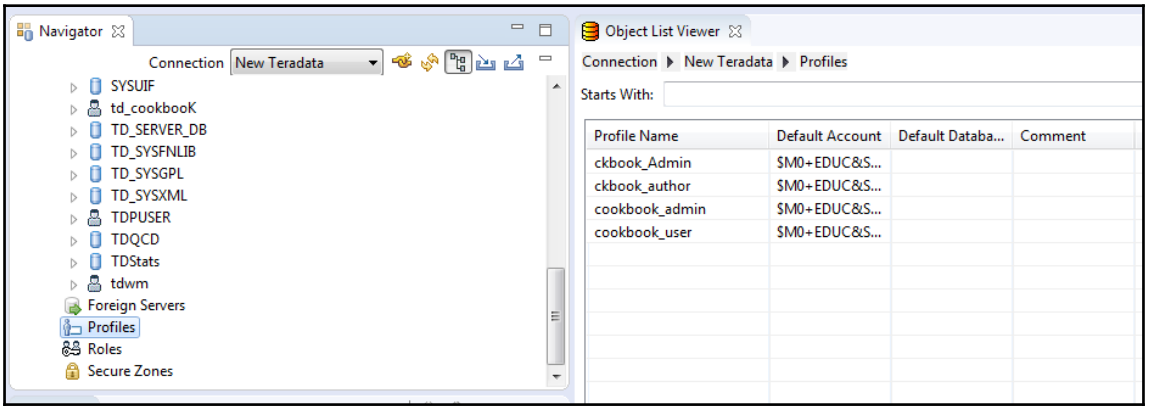

User
The field Name must not be empty
Commit
Reset
Cancel
General
Journaling
Session
Security Constraints
SQL
Name:
Parent:
DBC
Password:
Confirm Password:
Permanent Space:
Spool Space:
Temporary Space:
MB
DBA:
Account(s):
Startup String:
Default Database:
Profile:
Role:
Comment:

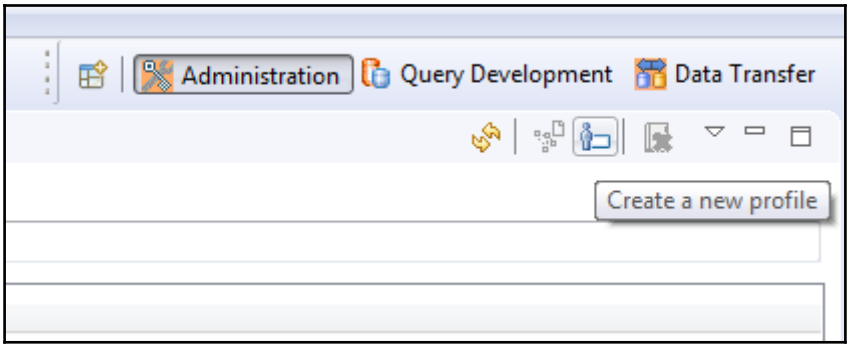
User
The field Name must not be empty
Commit
Reset
Cancel
General
Journaling
Session
Security Constraints
SQL
Fallback:
Before Journal:
No
After Journal:
No
Default Journal Table
Journal Database:
Journal Table:
Clear

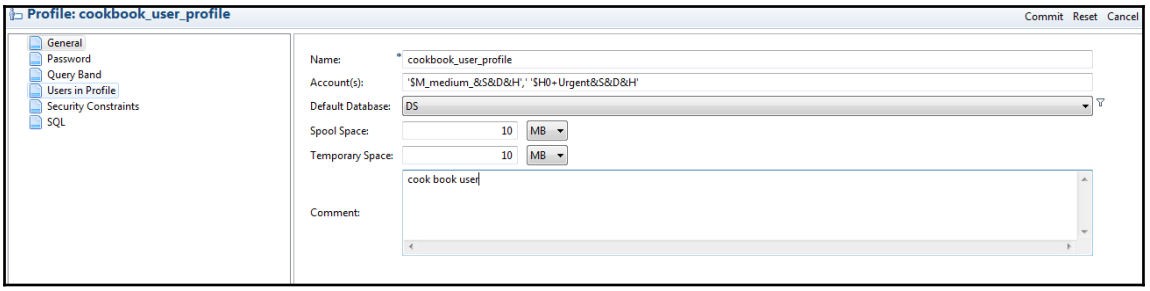

General
Journaling
Session
Security Constraints
SQL
Collation:
Date Form:
Default Character Set:
Export Width Definition:
Time Zone:
Minus
0
0
Africa Egypt

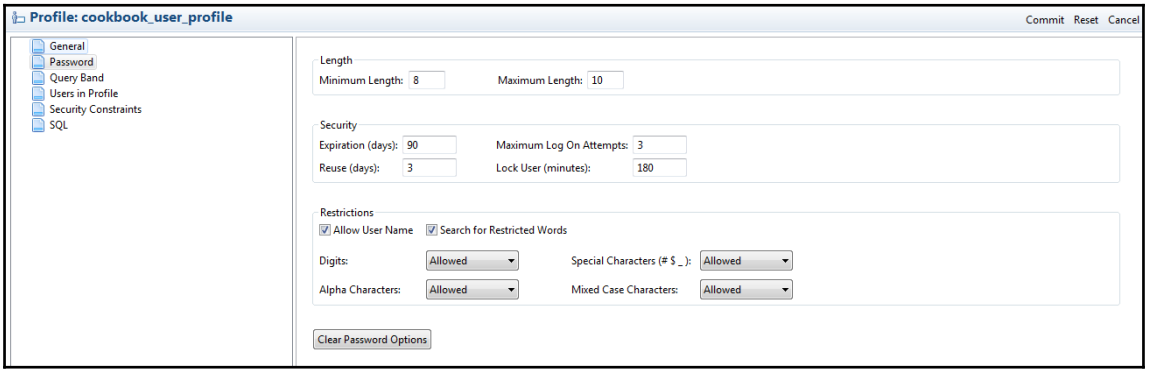

User
The field Name must not be empty
General
Journaling
Session
Security Constraints
SQL
CREATE USER "" FROM "dbc" AS
PERMANENT = 0,
PASSWORD = "",
NO FALLBACK PROTECTION,
NO BEFORE JOURNAL,
NO AFTER JOURNAL;

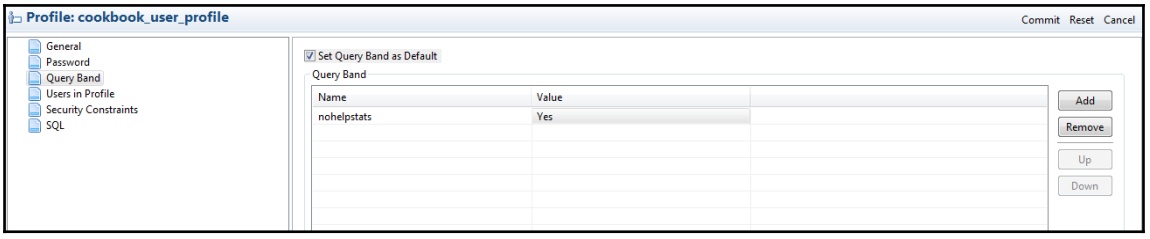

DBC
Owner of system and immediate parent of A,B
A is parent of A.1
A
B
B owns B.1 and B.1.a.
A.1
B.1
B.1 is immediate owner of B.1.a
B.1.a

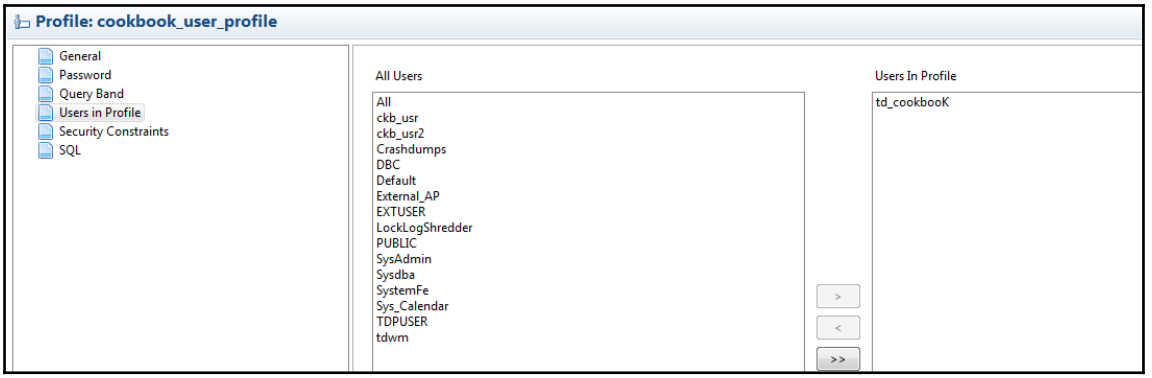

Navigator
Connection
New Teradata
SYSUIF
td_cookbooK
TD_SERVER_DB
TD_SYSFNLIB
TD_SYSGPL
TD_SYSXML
TDPUSER
TDQCD
TDStats
tdwm
Foreign Servers
Profiles
Roles
Secure Zones
Object List Viewer
Connection
New Teradata
Profiles
Starts With:
Profile Name
Default Account
Default Databa...
Comment
ckbook_Admin
$M0+EDUC&S...
ckbook_author
$M0+EDUC&S...
cookbook_admin
$M0+EDUC&S...
cookbook_user
$M0+EDUC&S...

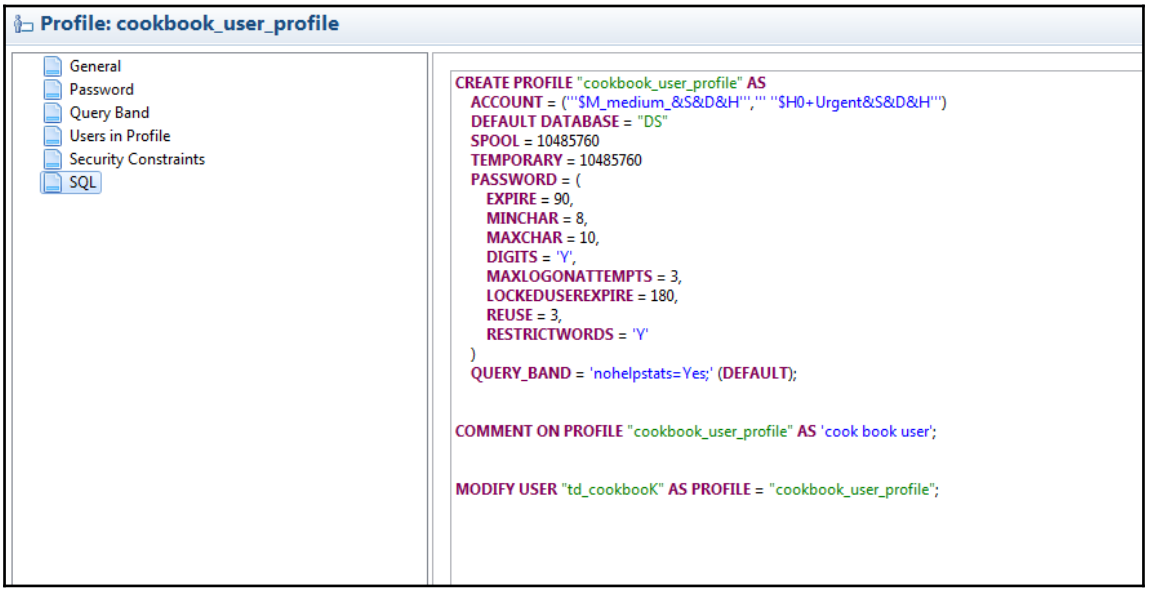

Administration
Query Development
Data Transfer
Create a new profile


Profile: cookbook_user_profile
Commit Reset Cancel
General
Password
Query Band
Users in Profile
Security Constraints
SQL
Name: cookbook_user_profile
Account(s): '$M_medium_&S&D&H', '$H0+Urgent&S&D&H'
Default Database: DS
Spool Space: 10 MB
Temporary Space: 10 MB
Comment: cook book user

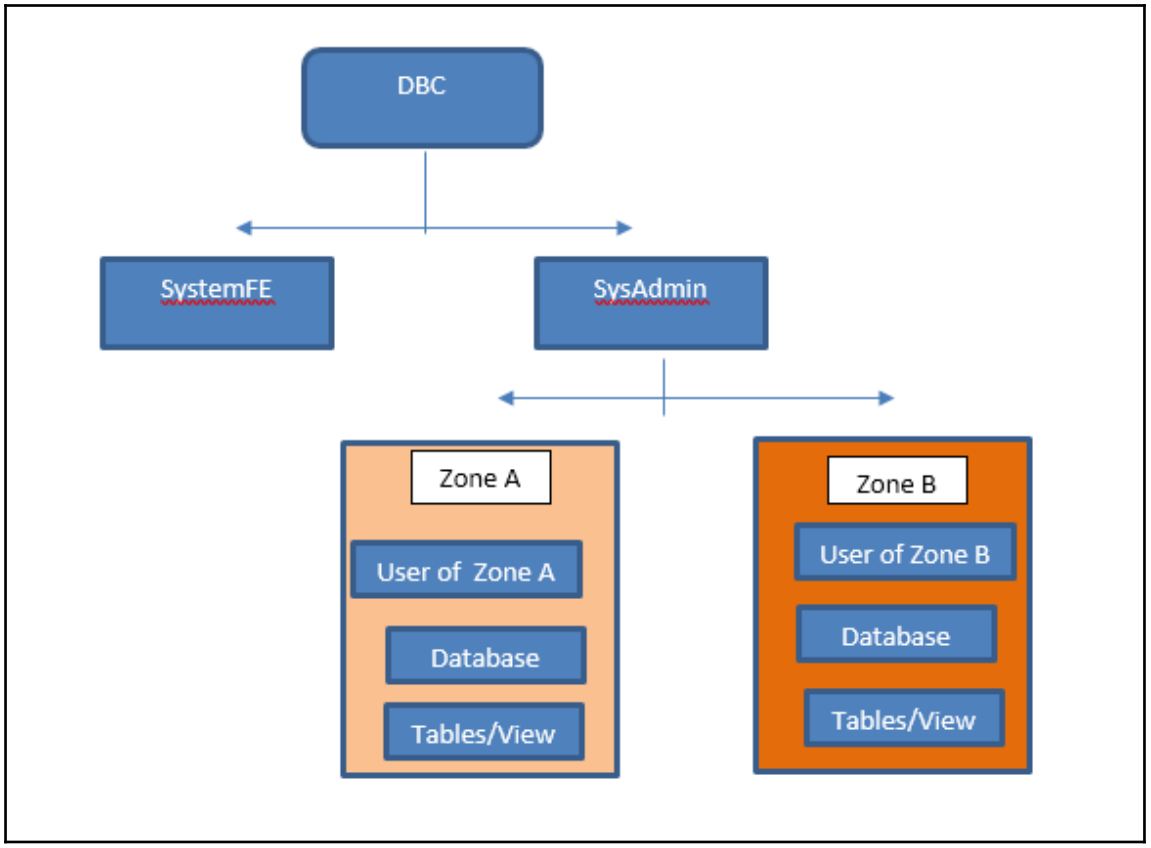

Profile: cookbook_user_profile
Commit Reset Cancel
General
Password
Query Band
Users in Profile
Security Constraints
SQL
Length
Minimum Length: 8
Maximum Length: 10
Security
Expiration (days): 90
Maximum Log On Attempts: 3
Reuse (days): 3
Lock User (minutes): 180
Restrictions
Allow User Name
Search for Restricted Words
Digits: Allowed
Special Characters (# $ _): Allowed
Alpha Characters: Allowed
Mixed Case Characters: Allowed
Clear Password Options

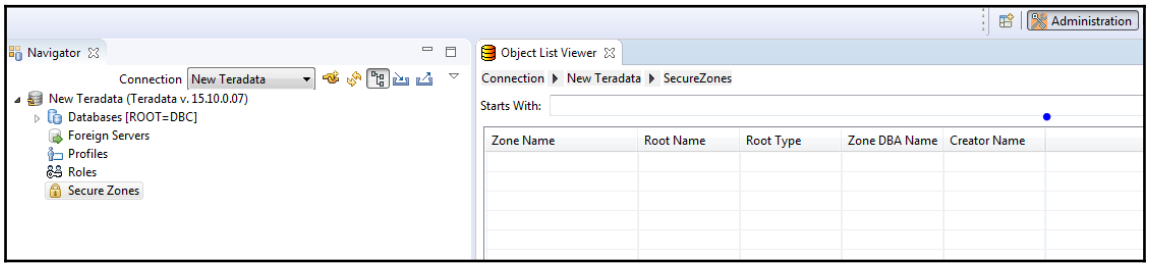

Profile: cookbook_user_profile
Commit Reset Cancel
General
Password
Query Band
Users in Profile
Security Constraints
SQL
Set Query Band as Default
Query Band
Name
Value
nohelpstats
Yes
Add
Remove
Up
Down

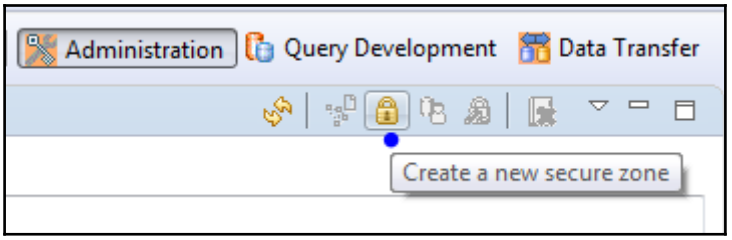


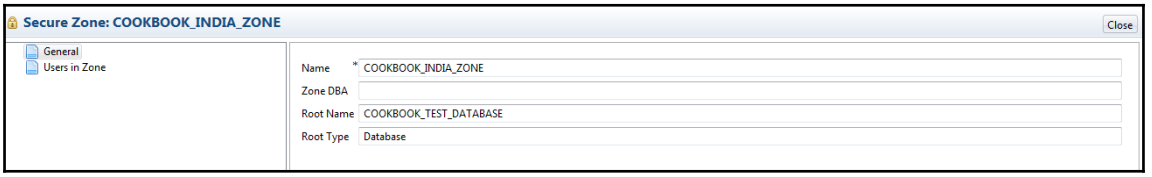


ProfileName	DefaultAccount	DefaultDB	SpoolSpace	TempSpace	ExpirePassword	PasswordMinChar	PasswordMaxC...	PasswordDigits	PasswordSpecC...	PasswordRestric...	MaxLogonAtte...
ckbook_author	$M0+EDUC&S&D&H	null	5.0E8	1.0E8	null	6	15	Y	1	null	3
cookbook_user	$M0+EDUC&S&D&H	null	5.0E8	1.0E8	null	6	15	Y	1	null	3
cookbook_admin	$M0+EDUC&S&D&H	null	1.0E9	1.0E9	null	6	15	Y	1	null	3
ckbook_Admin	$M0+EDUC&S&D&H	null	1.0E9	1.0E9	null	6	15	Y	1	null	3

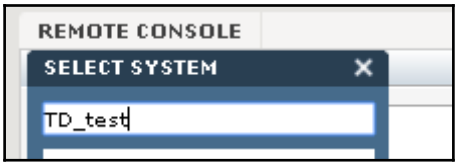

DBC
SystemFE
SysAdmin
Zone A
User of Zone A
Database
Tables/View
Zone B
User of Zone B
Database
Tables/View

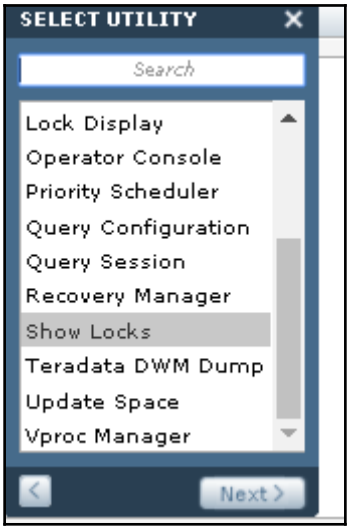

Administration
Navigator
Connection New Teradata
New Teradata (Teradata v. 15.10.0.07)
Databases [ROOT=DBC]
Foreign Servers
Profiles
Roles
Secure Zones
Object List Viewer
Connection New Teradata SecureZones
Starts With:
Zone Name
Root Name
Root Type
Zone DBA Name
Creator Name

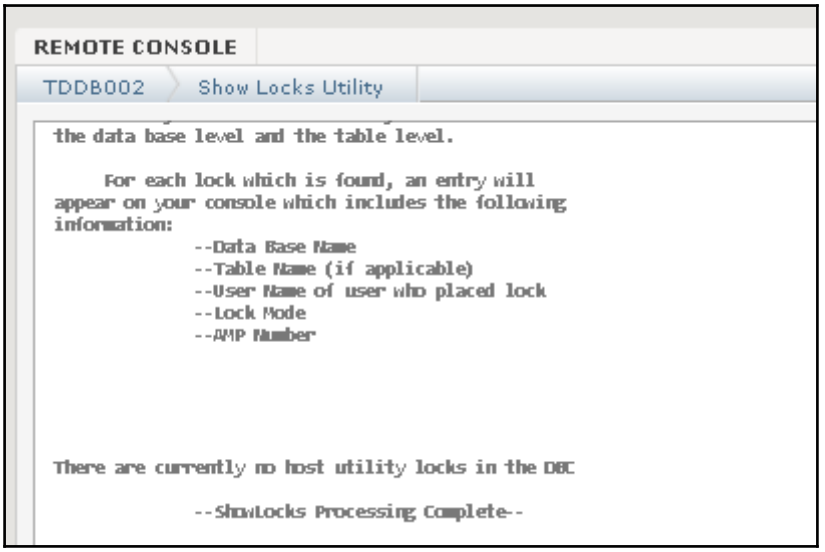


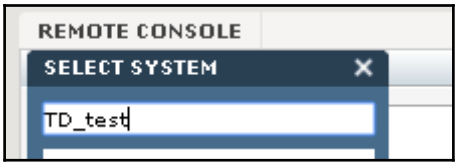


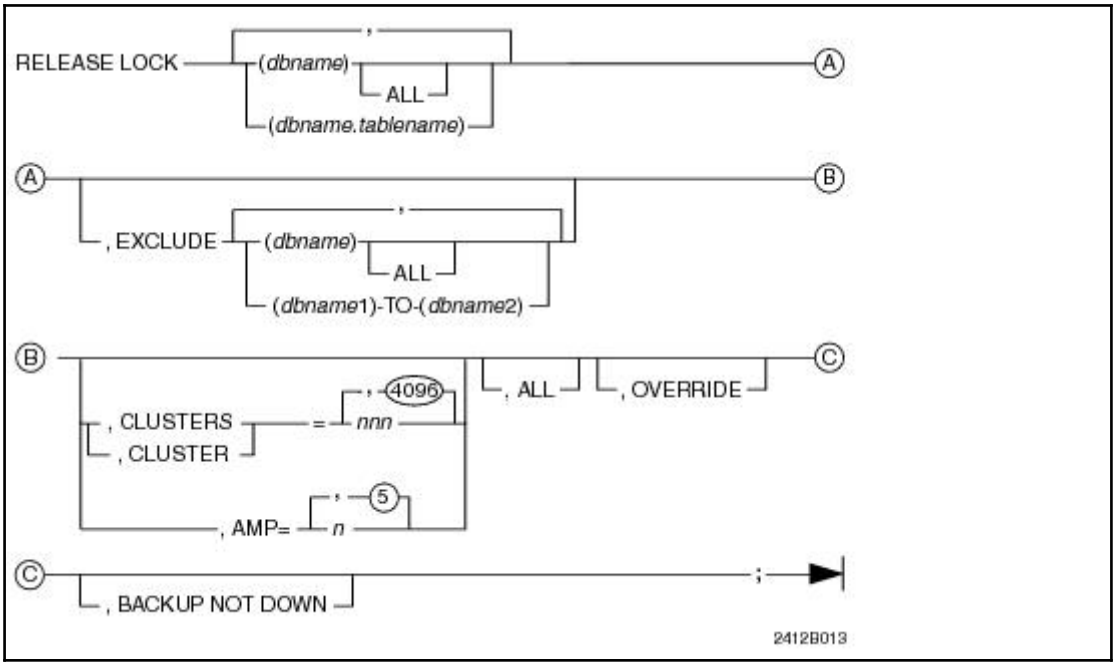
ZoneId	ZoneNameI	CreateUID	CreateTimeStamp	ZoneRootId	RootType	ZoneDBAId	CommentString
00-00-1b-04	COOKBOOK_IN...	00-00-01-00	2017-10-16 11:38...	00-00-17-04	D	null	null


REMOTE CONSOLE
SELECT SYSTEM
TD_test

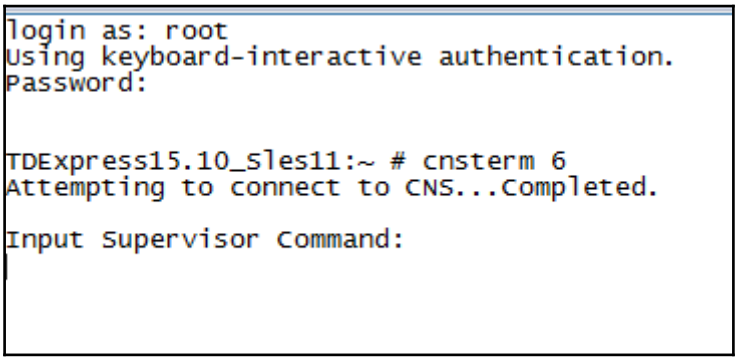

SELECT UTILITY
Search
Lock Display
Operator Console
Priority Scheduler
Query Configuration
Query Session
Recovery Manager
Show Locks
Teradata DWM Dump
Update Space
Vproc Manager
Next


REMOTE CONSOLE
TDDB002
Show Locks Utility
the data base level and the table level.
For each lock which is found, an entry will
appear on your console which includes the following
information:
--Data Base Name
--Table Name (if applicable)
--User Name of user who placed lock
--Lock Mode
--AMP Number
There are currently no host utility locks in the DBC
--ShowLocks Processing Complete--


REMOTE CONSOLE
SELECT SYSTEM
TD_test

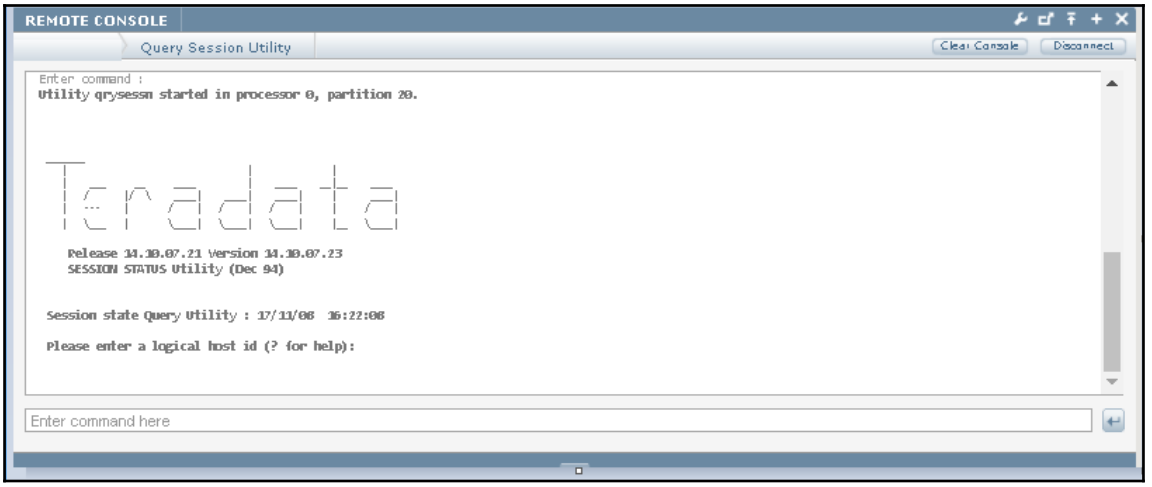

RELEASE LOCK
(dbname)
ALL
(dbname.tablename)
A
B
, EXCLUDE
(dbname)
ALL
(dbname1)-TO-(dbname2)
, CLUSTERS
, CLUSTER
4096
nnn
, ALL
, OVERRIDE
C
, AMP=
5
n
, BACKUP NOT DOWN
2412B013

Chapter 11: Performance Tuning



```
dbs1:~ # sar 5 5

Linux 11.6.5-7.244-smp (dbs1)

1:16:35        CPU     %user     %nice   %system   %iowait     %idle

1:16:38        all      0.0       0.0      0.17      0.00      99.83

1:16:41        all      0.0       0.0      0.17       0.0      99.83

1:16:44        all     0.00       0.0       0.0       0.0     100.00

Average:       all      0.0       0.0       0.1       0.0      99.89


dbs18:~ #
```

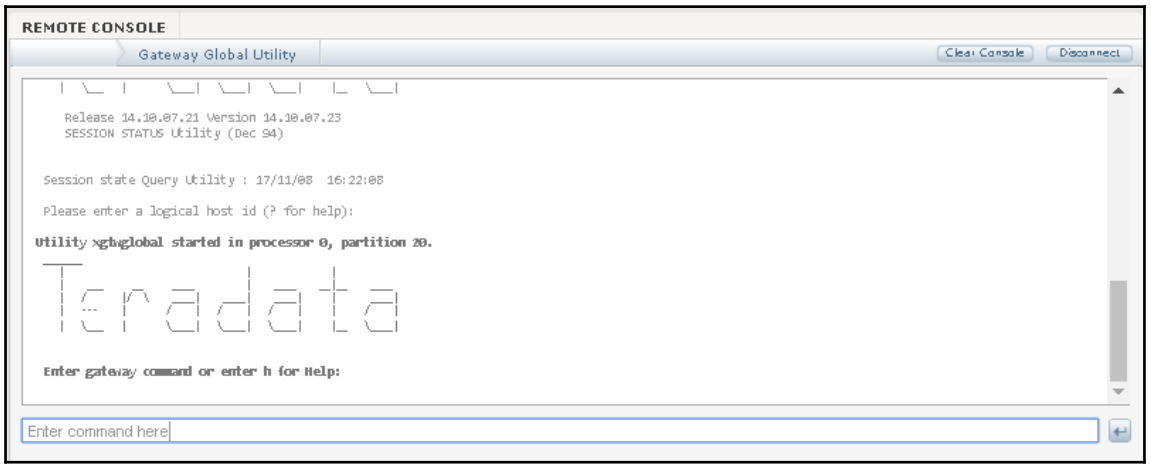
```
dbs_001-9t:~ # awtmon -s
====> Sat Nov 4 1:5:28 2017 <====
byn001-9: Amp 0   : Inuse:  4:  FOUR:  1 THREE:  3
byn001-10: Amp 1   : Inuse:  3:  THREE:  3
byn001-11: Amp 29:Inuse: 68:ABORT: 5 NEW:57 THREE: 3 TWO:  3
byn002-12: Amp 89  : Inuse:  5:  NEW:
```

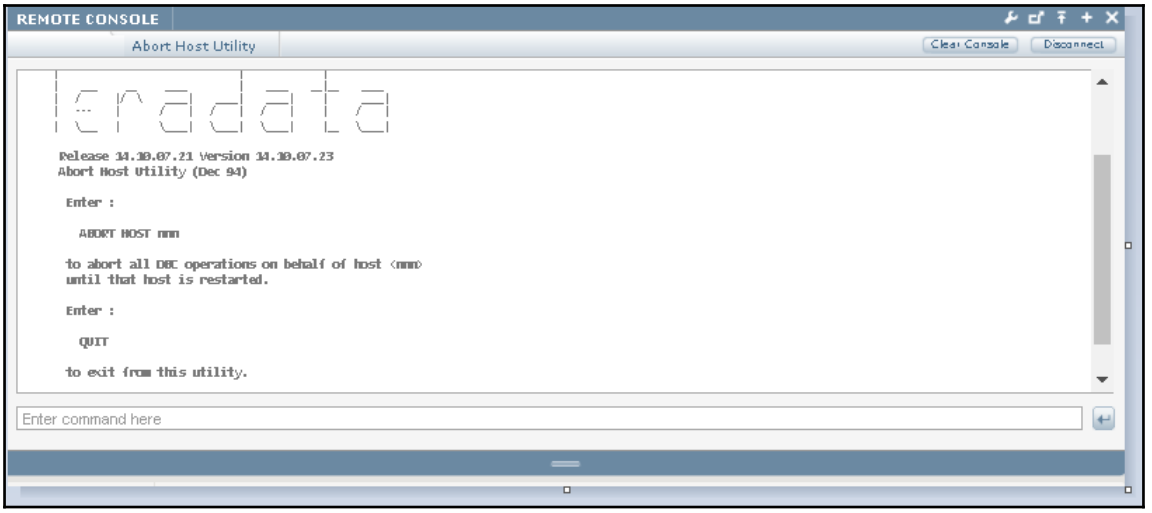


Host	Active Users	Session	IFP
1	sysdba	101239	16383

HostId	SessionNo	NumOfSteps	CurLvl1StepNo	CurLvl2StepNo
1	101239	5	4	4

```
StepNum     3
   EstRowCount                  1
   ActRowCount                  1
EstElapsedTime               .082
ActElapsedTime                  1
       SQLStep  We do a SUM step to aggregate from Spool 2750 (Last
Use) by way of an all-rows scan. Aggregate Intermediate Results are
computed
       StepNum     4
   EstRowCount                  1000000
   ActRowCount                  0
EstElapsedTime                  123,131
ActElapsedTime                  1
       SQLStep  We do an All-AMPs RETRIEVE step from Spool 2754
(Last Use) by way of an all-rows scan into Spool 2748, which is
built locally on
       StepNum     5
   EstRowCount                  1
   ActRowCount                  0
EstElapsedTime                  0
ActElapsedTime                  0
       SQLStep  We send out an END TRANSACTION step to all AMPs
involved in processing the request.
```





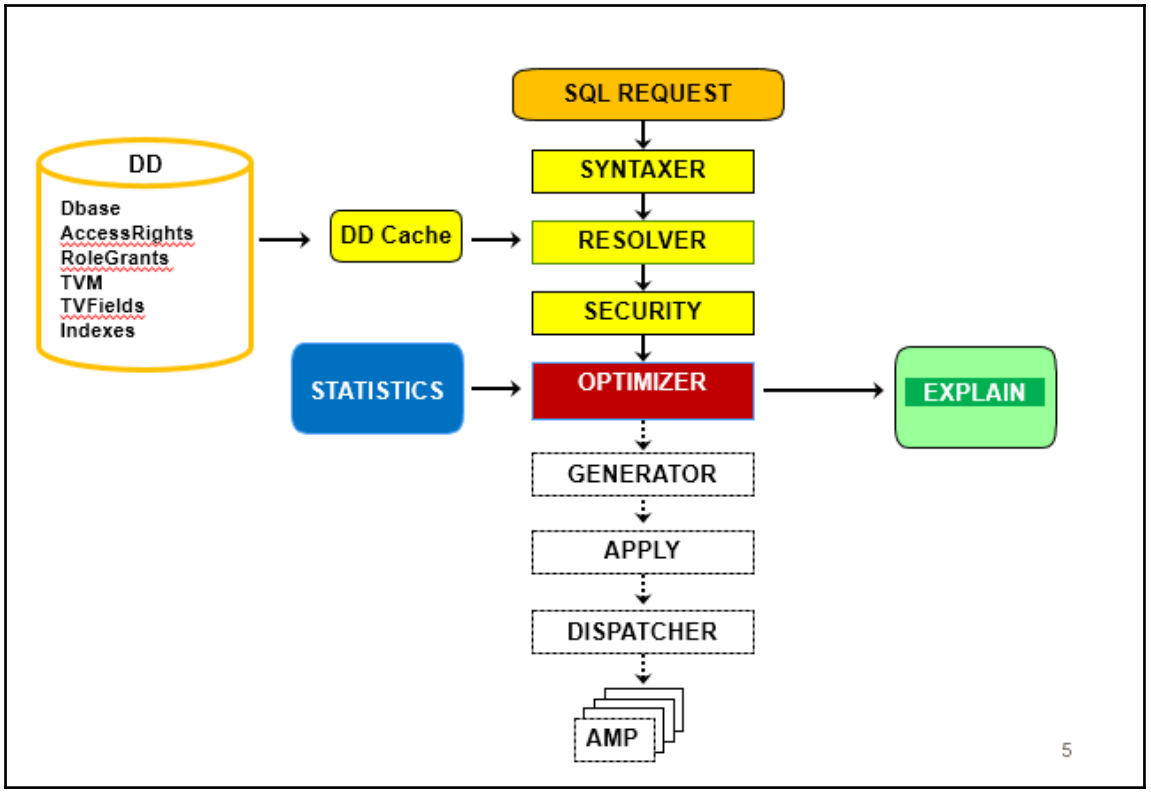

```
Node1.~ # puma -c -V 2 -node number
Resource Control Display
VPROC =     2
 WorkType          Min    Max   Inuse   Peak
 MSGWORKNEW          3     50      62     48
 MSGWORKONE          3    999       8     54
 MSGWORKTWO          3    999       0     27
 MSGWORKTHREE        3    999       0     11
 MSGWORKFOUR         0    999       0      0
 MSGWORKFIVE         0    999       0      1
 MSGWORKSIX          0    999       0      1
 MSGWORKSEVEN        0    999       0      0
 MSGWORKEIGHT        0    999       0      0
 MSGWORKNINE         0    999       0      0
 MSGWORKTEN          0    999       0      0
 MSGWORKELEVEN       0    999       0      0
 MSGWORKABORT        3    999       0     20
 MSGWORKSPAWN        3    999       0      6
 MSGWORKNORMAL       3    999       0     41
 MSGWORKCONTROL      3    999       0      6
```

Node_1-6:~ # puma –m

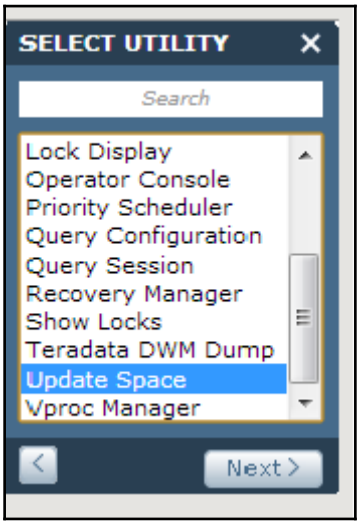
<---------- byn001-6 ---------->

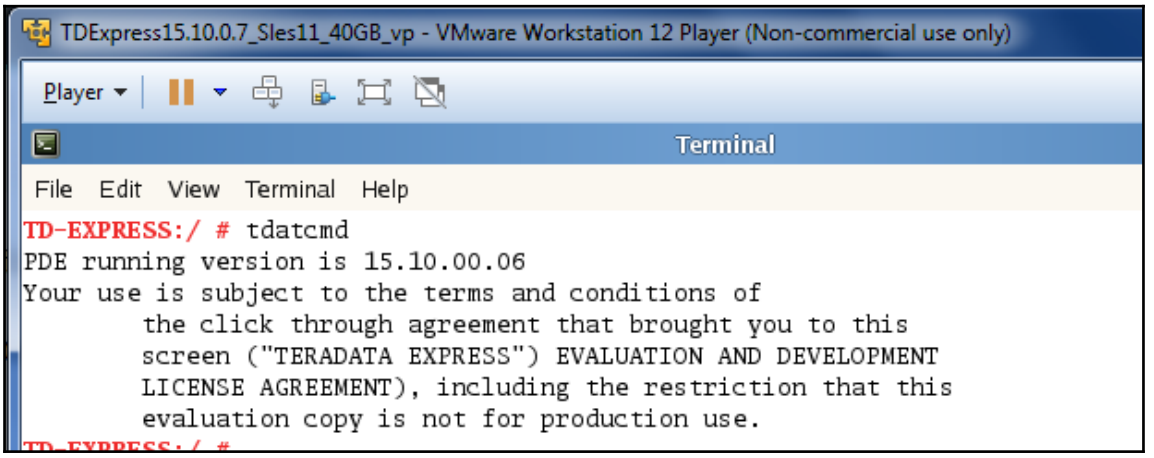
MbxId	Part	Vproc	Owner	MsgCount		MsgDQCount
171909067		81	25345	20		446
171912845		81	13971	19		88
171913303		81	983	19		1
171909144		81	31078	20		624
171913255		81	32250	4		6
171912043		81	32347	20		1708
171913067		81	32640	18		37
171911532		81	17786	20		5467
171911342		81	31670	20		6142
171913011		81	32348	20		2661
171907316		81	23003	19		1237
171908597	11	81	30710	21	Work	481087
171913213		81	31229	11		10
170691363		82	1014	6		14
170379523		83	31845	13		7

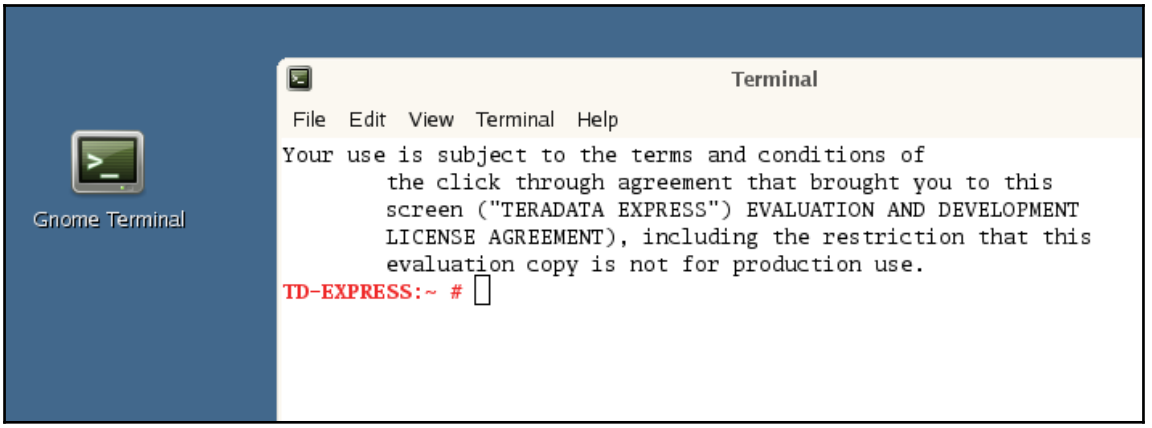
NodeID	vprid	LastDone
1-06	81	65081
1-09	201	2539
1-11	74	2352
1-11	65	2322
1-11	71	2301
1-11	68	2193
3-10	248	2063
1-11	2	2057


SQL REQUEST
SYNTAXER
RESOLVER
SECURITY
OPTIMIZER
GENERATOR
APPLY
DISPATCHER
AMP
DD
Dbase
AccessRights
RoleGrants
TVM
TVFields
Indexes
DD Cache
STATISTICS
EXPLAIN
5

Chapter 12: Troubleshooting



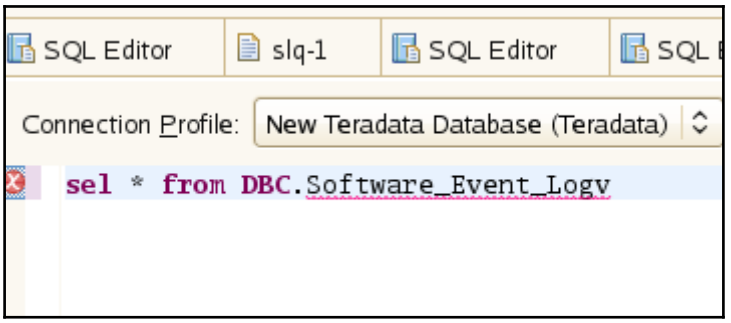




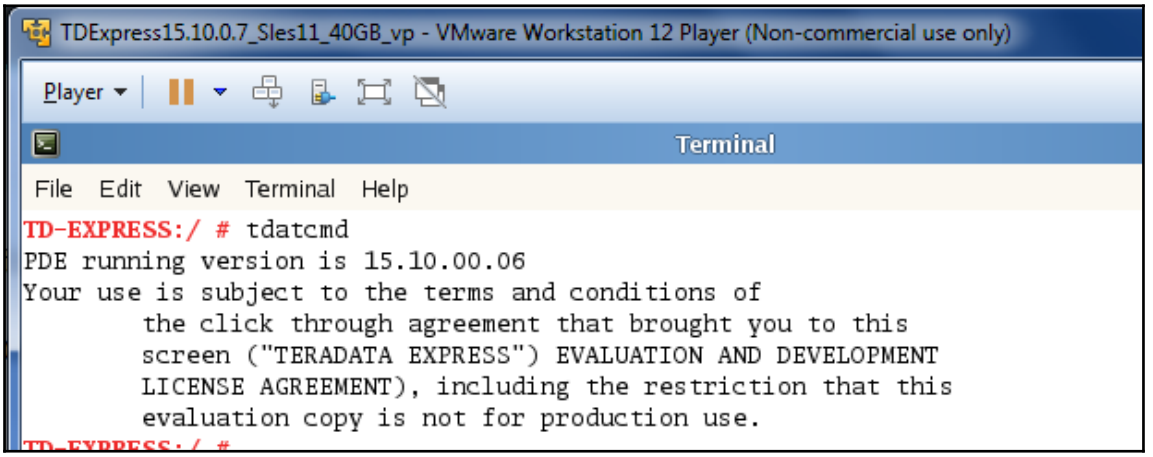

```
File  Edit  View  Terminal  Help
Your use is subject to the terms and conditions of
        the click through agreement that brought you to this
        screen ("TERADATA EXPRESS") EVALUATION AND DEVELOPMENT
        LICENSE AGREEMENT), including the restriction that this
        evaluation copy is not for production use.
TD-EXPRESS:~ # tpareset

tpareset: Error, Reason for the reset must be specified.

Usage: tpareset [ -force ] [ -dump | -panic [-nodump] ]
        [ -stop [-keephgpgs] | -xit [-keephgpgs] | -exit [-keephgpgs]]
        [ -yes ] [ -help ] reason

TD-EXPRESS:~ #
```

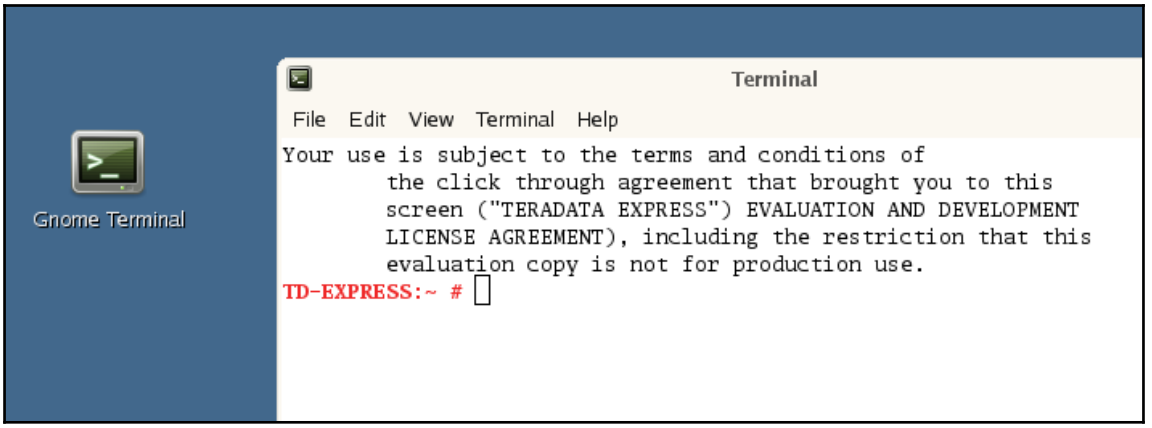
```
TD-EXPRESS:~ # tpareset -f testing the restart command

        You are about to restart the database
                 on the system
                    'localhost'
        Do you wish to continue (default: n) [y,n] ^Ct
```

```
TD-EXPRESS:~ # pdestate -a
PDE state is RUN/STARTED.
DBS state is 5: Logons are enabled - The system is quiescent
TD-EXPRESS:~ #
```




```
Jan  2 05:33:29 TD-EXPRESS gnome-session[4769]: WARNING: Unable to determine session: Unable to lookup session information for process '4
Jan  2 05:34:41 TD-EXPRESS gnome-session[4769]: WARNING: Unable to determine session: Unable to lookup session information for process '4
Jan  2 05:39:19 TD-EXPRESS Teradata[4994]: INFO: Teradata: 13895 #PDE: TPA restart initiated by this node, 001-01, for event 10198.
Jan  2 05:39:19 TD-EXPRESS Teradata[4994]: INFO: Teradata: 13895 #PDE: TPA restart requested by node 001-01 for event 10198.
Jan  2 05:39:19 TD-EXPRESS kernel: tdmeter: meter_mode Set To 0.
Jan  2 05:39:19 TD-EXPRESS Teradata[10803]: DEGRADED: Teradata: 10198#Force a TPA restart.
Jan  2 05:39:19 TD-EXPRESS Teradata[10803]: Restart reason is: testing the restart command
Jan  2 05:39:27 TD-EXPRESS recond[10815]: INFO: TdatTools: 29001 #tuning change: /usr/pde/etc/recondTunables.txt
Jan  2 05:39:27 TD-EXPRESS recond[10815]:  Before:      tl1_current_soft_resource_limit  = 0
Jan  2 05:39:27 TD-EXPRESS recond[10815]:  After:       tl1_current_soft_resource_limit  = 0xffffffff(-1)
Jan  2 05:39:27 TD-EXPRESS recond[10815]: INFO: TdatTools: 29001 #tuning change: /usr/pde/etc/recondTunables.txt
Jan  2 05:39:27 TD-EXPRESS recond[10815]:  Before:      tl2_maximum_hard_resource_limit  = 0
Jan  2 05:39:27 TD-EXPRESS recond[10815]:  After:       tl2_maximum_hard_resource_limit  = 0xffffffff(-1)
Jan  2 05:39:27 TD-EXPRESS recond[10815]: INFO: TdatTools: 29001 #Current Working Directory set: /var/opt/teradata/tdtemp
Jan  2 05:39:28 TD-EXPRESS recond[10815]: INFO: TdatTools: 29001 #pdeMain has started recond -r
```





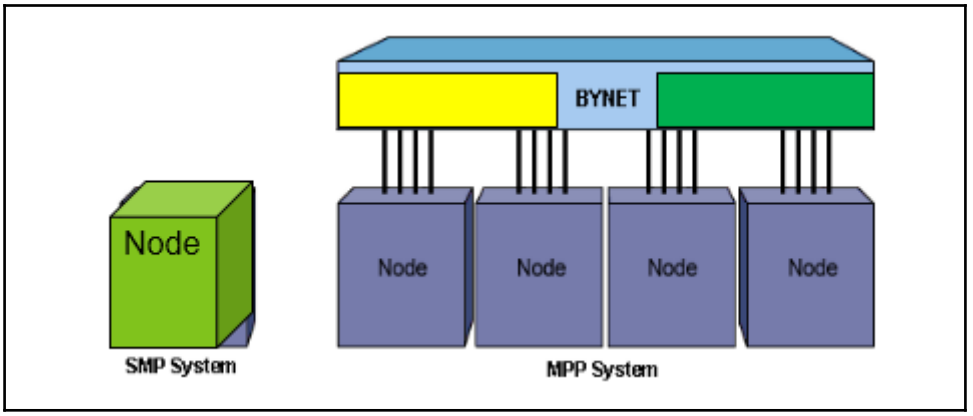

```
TD-EXPRESS:/ # dbscontrol


 ______
    |                                |              |
    |    ___     __     ____         |    ____    __|__    ____
    |   /      |/  \    ____|    ____|    ____|     |      ____|
    |   ---    |       /    |   /    |   /    |     |     /    |
    |   \___   |       \____|   \____|   \____|     |__   \____|

    Release 15.10.00.06 Version 15.10.00.07
    DBSControl Utility (Dec 99)



The current DBS Control GDO has been read.

Enter a command, HELP, or QUIT:
```

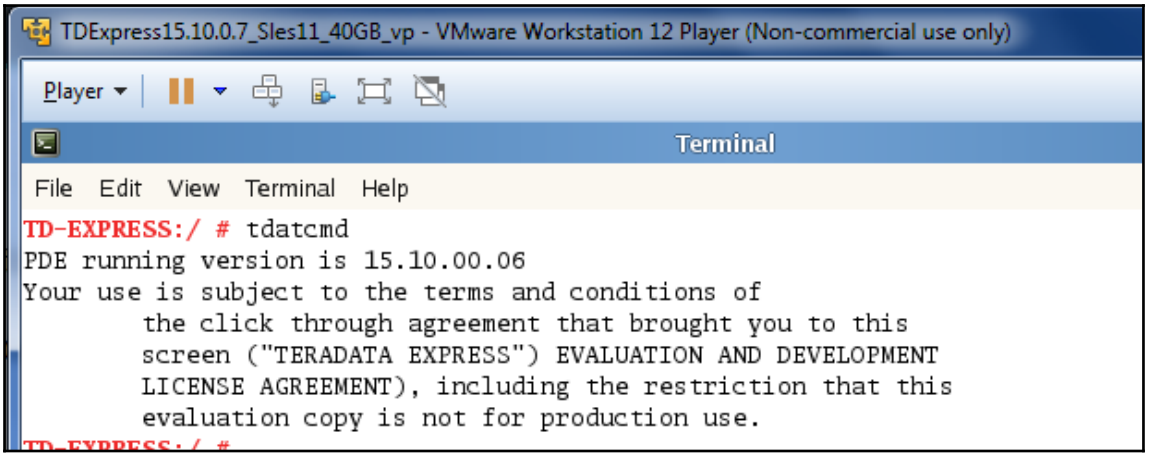
```
DBS Control Record - Optimizer Statistics Fields:

    1.  DefaultTimeThreshold        = 0 (Disabled; Default value)
    2.  DefaultUserChangeThreshold  = 0 (Disabled; Default value)
    3.  SysChangeThresholdOption    = 0 (Enabled with DBQL ObjectUsage; Default value)
    4.  SysSampleOption             = 0 (Enabled; Default value)
    5.  BLCStats                    = 0 (Enabled; Default value)


Enter a command, HELP, or QUIT:
display
```

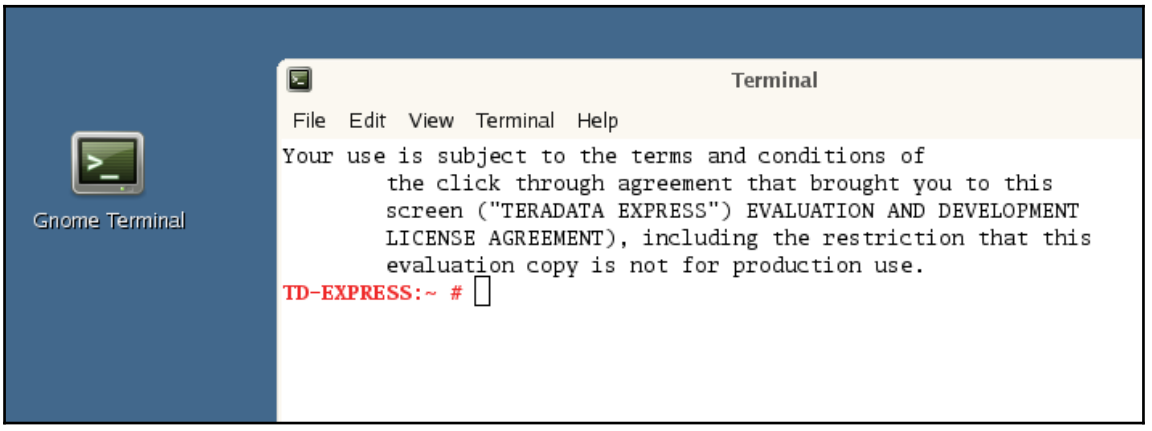
```
DBS Control Record - Performance Fields:

    1.  DictionaryCacheSize          = 8192    (KB; Default value)
    2.  DBSCacheCtrl                 = TRUE    (Enabled)
    3.  DBSCacheThr                  = 10      (Percent; Default value)
    4.  MaxParseTreeSegs             = 4000
    5.  ReadAhead                    = TRUE    (Enabled)
    6.  StepsSegmentSize             = 1024    (KB; Default value)
    7.  RedistBufSize                = 3832    (Bytes; Default value)
    8.  DisableSyncScan              = FALSE   (Enabled)
    9.  SyncScanCacheThr             = 10      (Percent; Default value)
   10.  HTMemAlloc                   = 10      (Percent; Default value)
   11.  SkewAllowance                = 75      (Percent; Default value)
   12.  Read Ahead Count             = 1       (Data block; Default value)
   13.  PPICacheThrP                 = 10      (PPI cache per AMP = 1.0% of 100.00MB: 1.00MB)
   14.  ReadLockOnly                 = FALSE
   15.  IAMaxWorkloadCache           = 64      (MB)
   16.  MaxRequestsSaved             = 600
   17.  UtilityReadAheadCount        = 10      (Blocks; Default value)
   18.  StandAloneReadAheadCount     = 20      (Blocks; Default value)
   19.  DisablePeekUsing             = FALSE   (Enabled)
   20.  IVMaxWorkloadCache           = 1       (MB; Default value)
   21.  RevertJoinPlanning           = FALSE   (Default value)
   22.  MaxJoinTables                = 128
   23.  DBQLXMLPlanMemLimit          = 64000   (KB; Default value)
   24.  LimitInlistCVal              = 1048576
   25.  NumStatisticsCacheSegs       = 5       (SizeofSegment is 1024KB)
   26.  SHOW IN XML Memory Limit     = 64000   (KB; Default value)
   27.  DictionaryCacheSegmentSize   = 16      ( * 64 KBs; Default value)
   28.  PRPDMaxSkewedVals            = 50      (Default value)
   29.  PRPDSkewPct                  = 80      (Percent; Default value)
   30.  DBQLLOBCacheSize             = 2      (MB; Default:2, Min:2, Max:16)
   31.  HJ2IMHJ                      = FALSE
```

```
Enter a command, HELP, or QUIT:
dis g

DBS Control Record - General Fields:

     1. Version                       = 10
     2. SysInit                       = TRUE        (2015-10-17 23:42)
     3. DeadLockTimeout               = 240         (Seconds)
     4. (Reserved for future use)
     5. HashFuncDBC                   = 6           (Universal)
     6. (Reserved for future use)
     7. (Reserved for future use)
     8. SessionMode                   = 0           (Teradata mode)
     9. LockLogger                    = FALSE       (Disabled)
    10. RollbackPriority              = FALSE       (Disabled)
    11. MaxLoadTasks                  = 5
    12. RollForwardLock               = FALSE       (Disabled)
    13. MaxDecimal                    = 15
    14. CenturyBreak                  = 0
    15. DateForm                      = 0           (IntegerDate)
    16. System TimeZone Hour          = 0
    17. System TimeZone Minute        = 0
    18. System TimeZone String        = Not Set
    19. (Reserved for future use)
    20. RoundHalfwayMagUp             = FALSE
    21. (Reserved for future use)
    22. Target Level Emulation        = FALSE
    23. Export Width Table ID         = 0           (Expected Defaults)
    24. DBQL Log Last Resp            = FALSE
    25. DBQL Options                  = 0           (No options)
    26. ExternalAuthentication        = 0           (On)
    27. IdCol Batch Size              = 10000
    28. LockLogger Delay Filter       = FALSE
    29. LockLogger Delay Filter Time  = 0           (Seconds; Default value)
```

```
^C
TD-EXPRESS:/ # cnsterm 6
Attempting to connect to CNS...Completed.
Hello

Input Supervisor Command:
> start dbscontrol
start dbscontrol

Started 'dbscontrol' in window 1
 at Tue Jan  2 08:01:13 2018


Input Supervisor Command:
> dis perf
```


BYNET
Node
Node
Node
Node
Node
SMP System
MPP System


TDExpress15.10.0.7_Sles11_40GB_vp - VMware Workstation 12 Player (Non-commercial use only)
Player
Terminal
File Edit View Terminal Help
TD-EXPRESS:/ # tdatcmd
PDE running version is 15.10.00.06
Your use is subject to the terms and conditions of
the click through agreement that brought you to this
screen ("TERADATA EXPRESS") EVALUATION AND DEVELOPMENT
LICENSE AGREEMENT), including the restriction that this
evaluation copy is not for production use.


Gnome Terminal
Terminal
File Edit View Terminal Help
Your use is subject to the terms and conditions of
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LICENSE AGREEMENT), including the restriction that this
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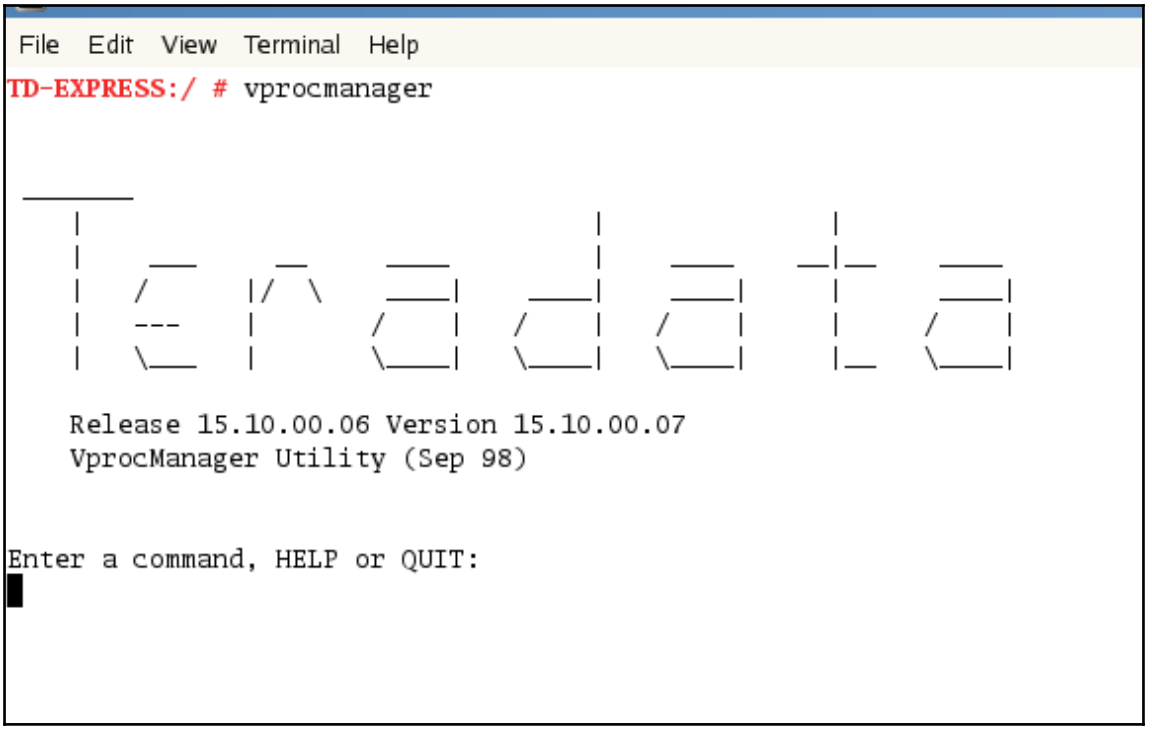
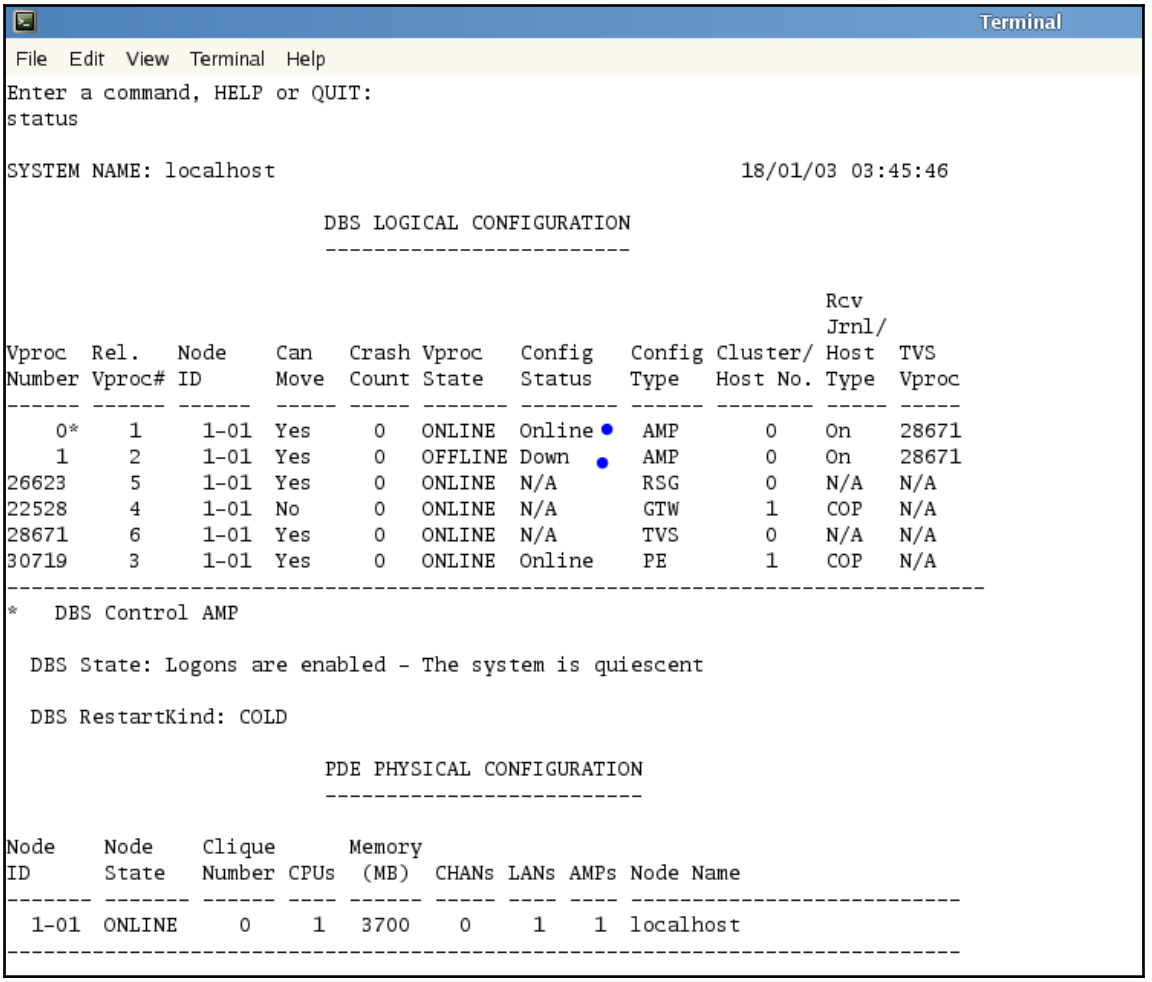
TD-EXPRESS:~ #


File Edit View Terminal Help
TD-EXPRESS:/ # vprocmanager
Release 15.10.00.06 Version 15.10.00.07
VprocManager Utility (Sep 98)
Enter a command, HELP or QUIT:



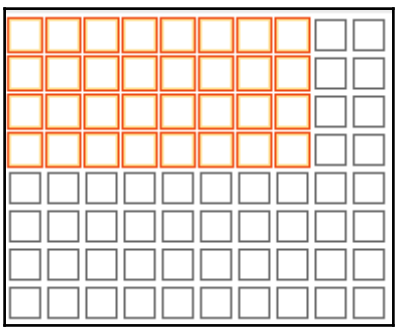

```
Enter a command, HELP or QUIT:
SET 1 = online

Vproc 1 will begin recovery in the background via the Recovery Control Task

Enter a command, HELP or QUIT:
```

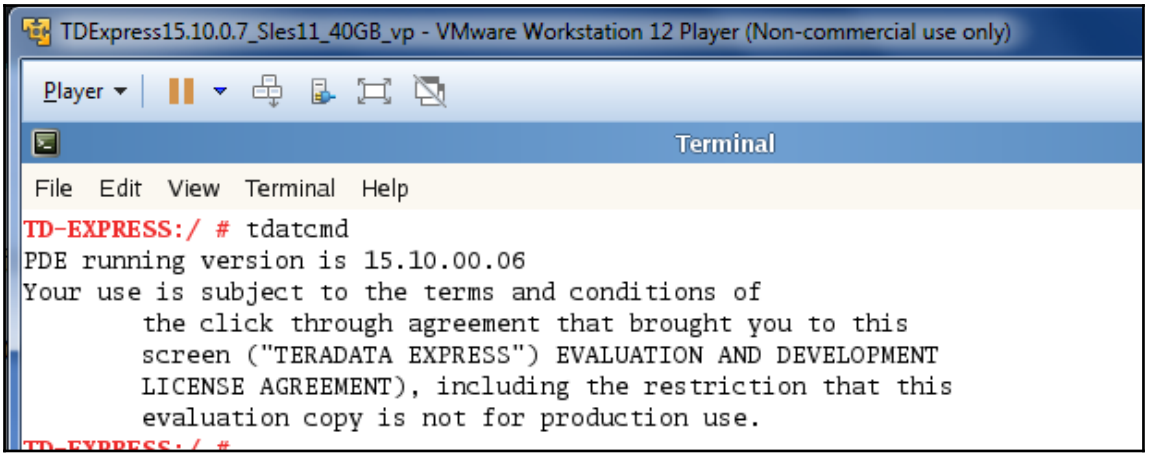
```
                        DBS LOGICAL CONFIGURATION
                        -------------------------

                                                                          Rcv
                                                                          Jrnl/
Vproc  Rel.   Node    Can   Crash Vproc   Config   Config Cluster/ Host  TVS
Number Vproc# ID      Move  Count State   Status   Type   Host No. Type  Vproc
------ ------ ------  ----- ----- ------- -------- ------ -------- ----- -----
    0*     1    1-01  Yes       0 ONLINE  Online   AMP         0   On    28671
    1      2    1-01  Yes       0 UTILITY Catchup  AMP         0   On    28671
26623      5    1-01  Yes       0 ONLINE  N/A      RSG         0   N/A   N/A
22528      4    1-01  No        0 ONLINE  N/A      GTW         1   COP   N/A
28671      6    1-01  Yes       0 ONLINE  N/A      TVS         0   N/A   N/A
30719      3    1-01  Yes       0 ONLINE  Online   PE          1   COP   N/A
-------------------------------------------------------------------------------
*   DBS Control AMP

  DBS State: Logons are enabled - The system is quiescent

  DBS RestartKind: COLD

                        PDE PHYSICAL CONFIGURATION
                        --------------------------

Node    Node    Clique      Memory
ID      State   Number CPUs  (MB)  CHANs LANs AMPs Node Name
------- ------- ------ ---- ------ ----- ---- ---- ----------------------------
  1-01  ONLINE     0     1   3700    0     1    1  localhost
-------------------------------------------------------------------------------
```

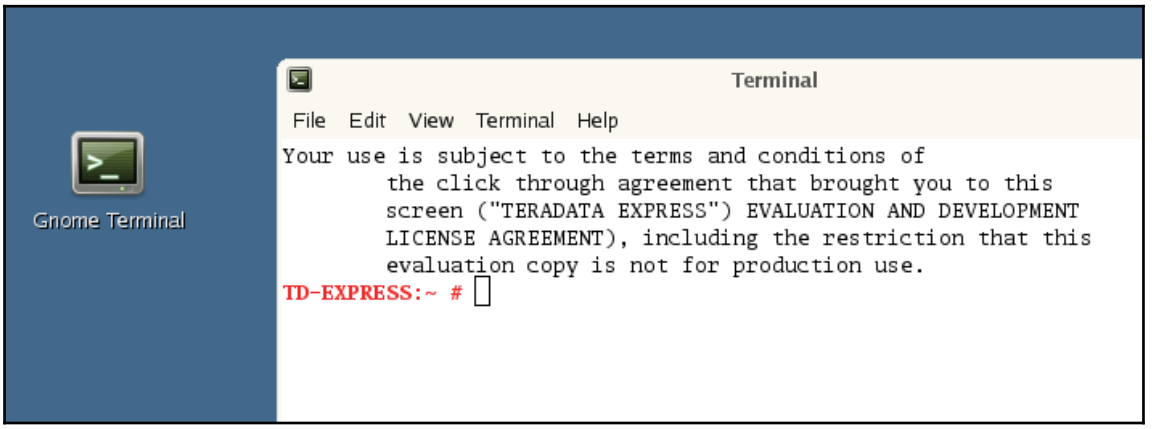
```
Enter a command, HELP or QUIT:
restart


Are you sure you want to Restart the DBS now (Y/N)?
Y
```

```
File  Edit  View  Terminal  Help
                          DBS LOGICAL CONFIGURATION
                          -------------------------

                                                                      Rcv
                                                                      Jrnl/
Vproc  Rel.   Node    Can   Crash Vproc   Config   Config Cluster/ Host  TVS
Number Vproc# ID      Move  Count State   Status   Type   Host No. Type  Vproc
------ ------ ------  ----- ----- ------- -------- ------ -------- ----- -----
    0*    1     1-01  Yes     0   ONLINE  Online    AMP       0    On    28671
    1     2     1-01  Yes     0   ONLINE  Online    AMP       0    On    28671
26623     5     1-01  Yes     0   ONLINE  N/A       RSG       0    N/A   N/A
22528     4     1-01  No      0   ONLINE  N/A       GTW       1    COP   N/A
28671     6     1-01  Yes     0   ONLINE  N/A       TVS       0    N/A   N/A
30719     3     1-01  Yes     0   ONLINE  Online    PE        1    COP   N/A
-------------------------------------------------------------------------------
*   DBS Control AMP

  DBS State: Logons are enabled - The system is quiescent

  DBS RestartKind: COLD

                          PDE PHYSICAL CONFIGURATION
                          --------------------------

Node    Node    Clique      Memory
ID      State   Number CPUs  (MB)  CHANs LANs AMPs Node Name
------- ------- ------ ---- ------ ----- ---- ---- ---------------------------
  1-01  ONLINE     0     1   3700    0     1    2  localhost
-------------------------------------------------------------------------------


  PDE State: RUN/STARTED
```

```
Enter a command, HELP or QUIT:
help set

SET [/V] <VprocList> [=] <VprocState> [[,] <VprocList> [=] <VprocState>]...

SET RESTART [=] <RestartKind>

   o The first format of this command is used to change the state
     of a vproc or a list of vprocs. A maximum of 30720 vprocs
     can be specified. Any state change becomes effective immediately,
     although *no* changes are made regarding the Message Group(s)
     the vproc is in and whether it is the Control vproc or not.
     These changes are deferred until after the next DBS restart.
     The slash "V" option enables verbose mode if specified.
   o A VprocList is composed of one or more VprocIds or a range
     of VprocIds as seen below:

          <VProcList>  ::= VprocRange [ [,] VprocRange ]...
          <VprocRange> ::= [ VprocId | VprocId TO VprocId ]

     Examples:
          0 1 2 3
          0, 1, 1022 to 1023
          0 to 10, 1021, 1022
   o Valid VprocStates  are ONLINE, OFFLINE, UTILITY, NEWPROC,
     or FATAL. Enter "HELP <VprocState>"  for additional
     information.
   o The second format of this commands is used to define the Restart-
     Kind to use during the next DBS restart. It does not force an
     immediate restart.
   o Valid RestartKinds are COLD or COLDWAIT. Enter
     "HELP <RestartKind>" for additional information.
```





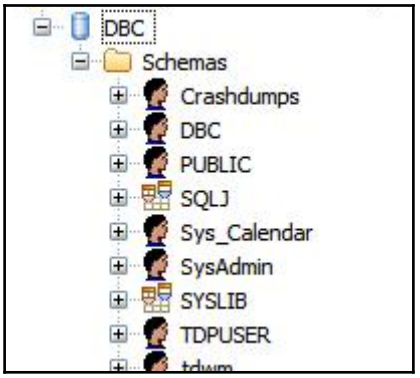



```
TD-EXPRESS:/ # cnsterm 6
Attempting to connect to CNS...Completed.
Hello

Input Supervisor Command:
```

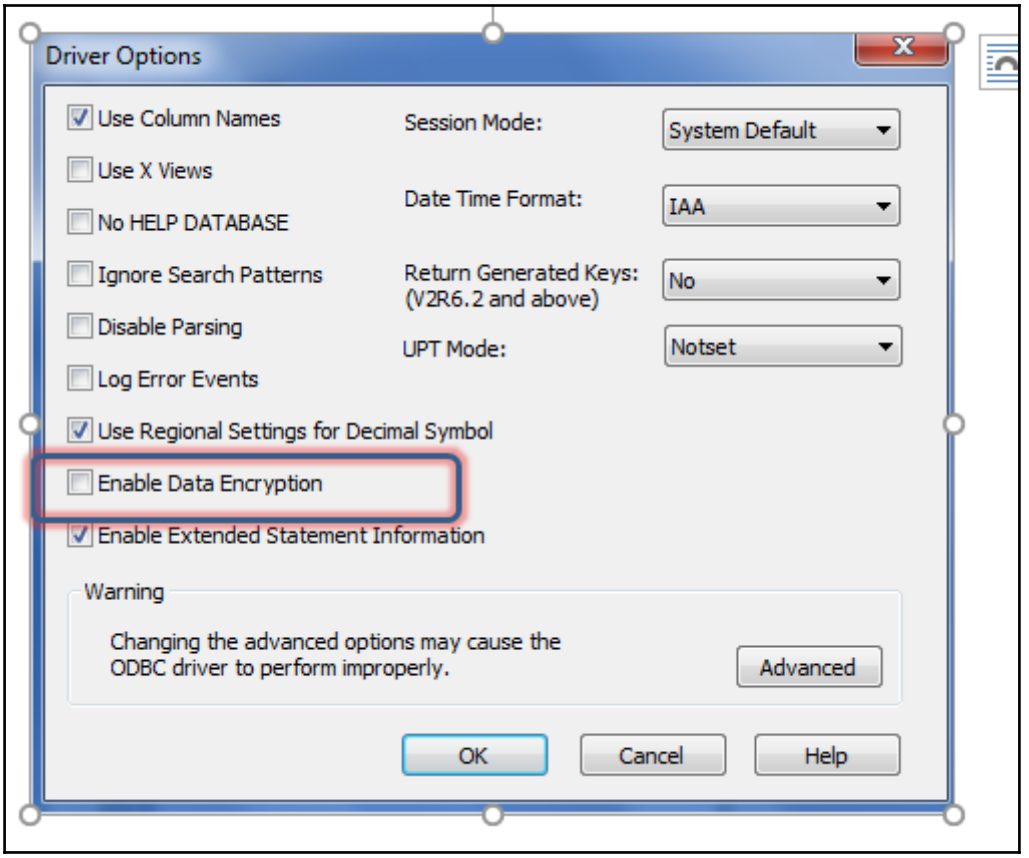
```
Input Supervisor Command:
start > ferret
start ferret

Started 'ferret' in window 2
 at Wed Jan  3 05:52:41 2018


Input Supervisor Command:
>
```

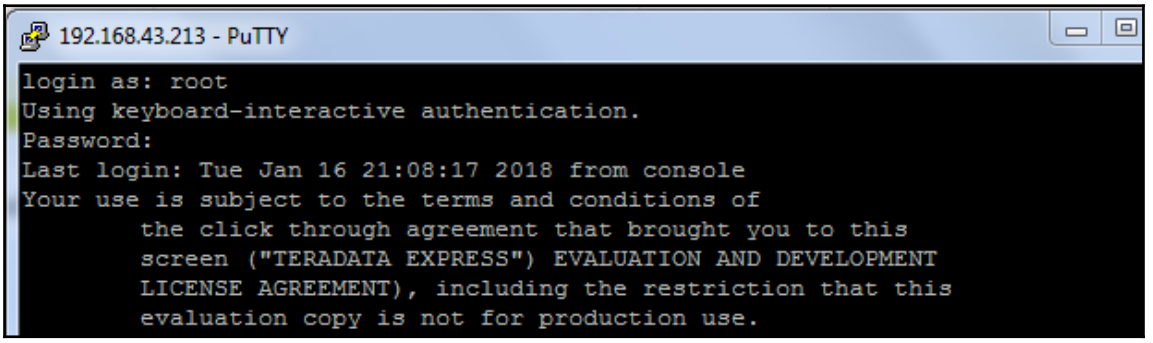
```
TD-EXPRESS:/ # cnsterm 2
Attempting to connect to CNS...Completed.
Hello

Ferret Utility
 _______
    |                                |              |
    |    ___     __     ____         |    ____    __|__    ____
    |   /      |/  \    ____|    ____|    ____|     |      ____|
    |   ---    |       /    |   /    |   /    |     |     /    |
    |   \___   |       \____|   \____|   \____|     |__   \____|

    Release 15.10.00.06 Version 15.10.00.07
    Ferret

Waiting for 1 Ferret background tasks to start
All Background tasks have been started
FERRET will run in Workload Def: WD-Default
The SCOPE has been set

Ferret  ==>
>
```

```
File  Edit  View  Terminal  Help
    |    ___     __     ____          |    ____    __|__    ____
    |   /      |/  \    ____|    ____|    ____|      |      ____|
    |   ---    |       /    |   /    |   /    |      |     /    |
    |   \___   |       \____|   \____|   \____|      |__   \____|

    Release 15.10.00.06 Version 15.10.00.07
    Ferret

Waiting for 1 Ferret background tasks to start
All Background tasks have been started
FERRET will run in Workload Def: WD-Default
The SCOPE has been set

Ferret  ==>
> scandisk
scandisk

Wed Jan 03, 2018  05:59:14 : Scandisk will be started
                           On all AMP vprocs
        Do you wish to continue based upon this scope?? (Y/N)
> y
y

Wed Jan 03, 2018  05:59:21 : Scandisk has been started
Type 'ABORT' to stop the command before completion
Type 'INQUIRE' to check on progress of command
>


2 of 2 vprocs responded with no messages or errors.

Wed Jan 03, 2018  05:59:23 : Scandisk has completed

Ferret  ==>
```




```
TD-EXPRESS:/ # cnsterm 6
Attempting to connect to CNS...Completed.
Hello

Input Supervisor Command:
 > start tstsql

 Start tstsql

 Started 'tstql' in window 1

 at  Tue 16  Jan  2018  09:01:18 2018

 ..
```


Driver Options
Use Column Names
Use X Views
No HELP DATABASE
Ignore Search Patterns
Disable Parsing
Log Error Events
Use Regional Settings for Decimal Symbol
Enable Data Encryption
Enable Extended Statement Information
Session Mode:
System Default
Date Time Format:
IAA
Return Generated Keys:
(V2R6.2 and above)
No
UPT Mode:
Notset
Warning
Changing the advanced options may cause the
ODBC driver to perform improperly.
Advanced
OK
Cancel
Help


192.168.43.213 - PuTTY
login as: root
Using keyboard-interactive authentication.
Password:
Last login: Tue Jan 16 21:08:17 2018 from console
Your use is subject to the terms and conditions of
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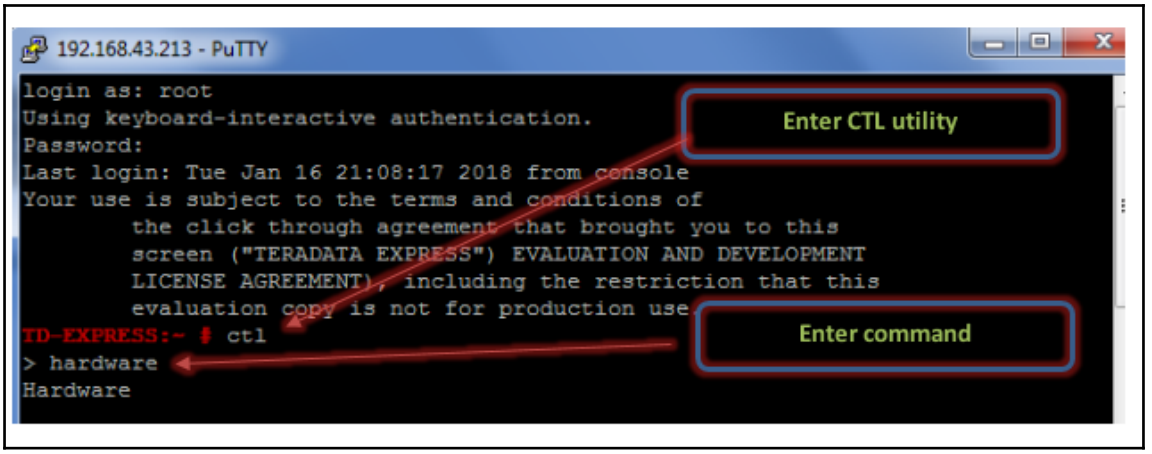
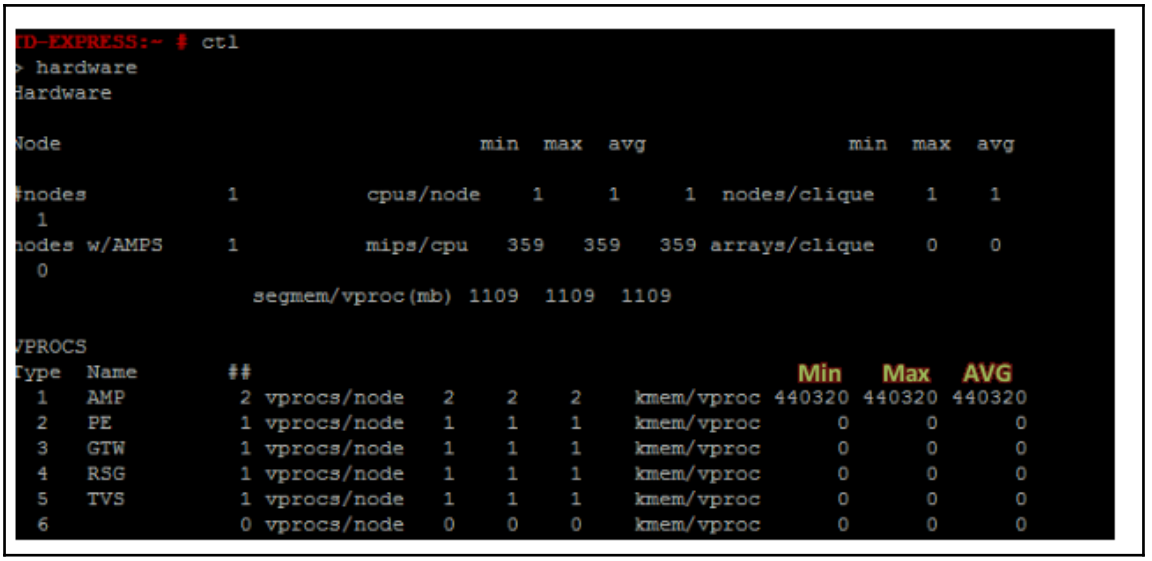
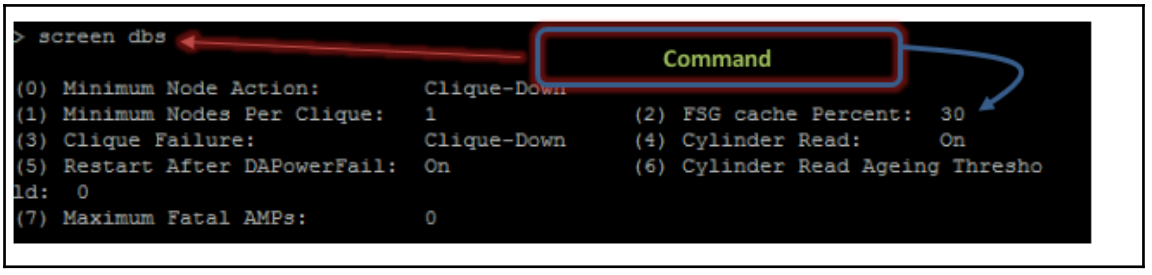
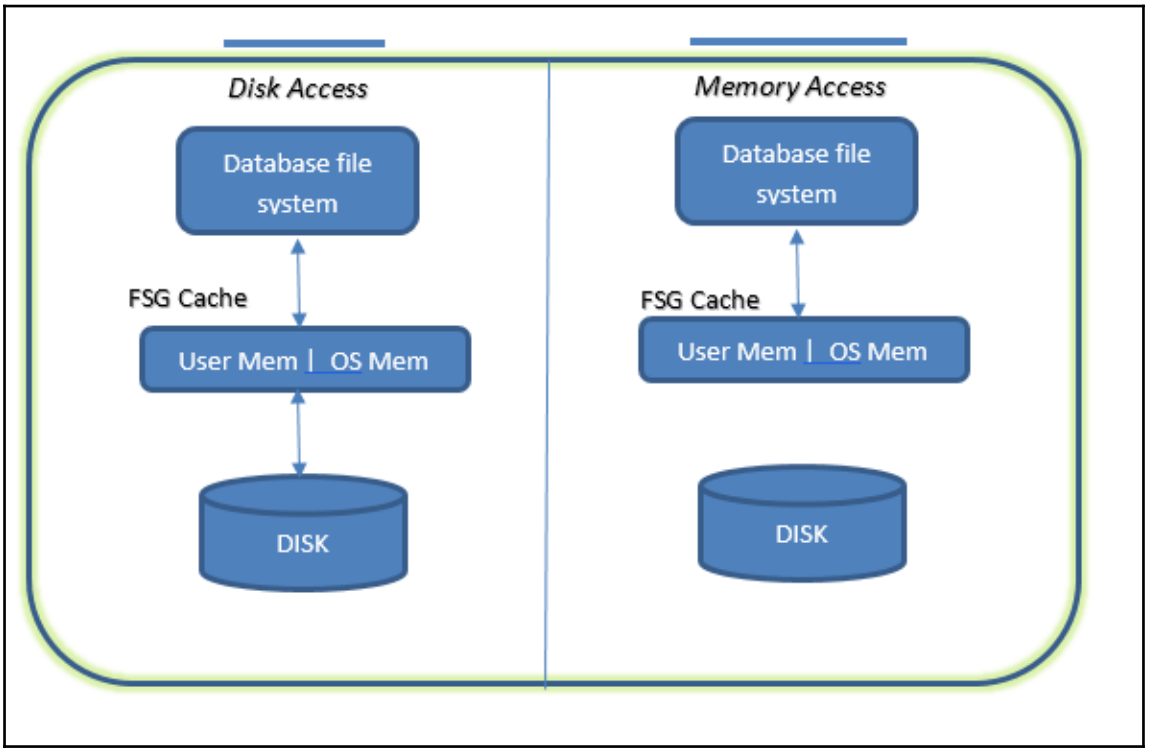

192.168.43.213 - PuTTY
login as: root
Using keyboard-interactive authentication.
Password:
Last login: Tue Jan 16 21:08:17 2018 from console
Your use is subject to the terms and conditions of
the click through agreement that brought you to this
screen ("TERADATA EXPRESS") EVALUATION AND DEVELOPMENT
LICENSE AGREEMENT), including the restriction that this
evaluation copy is not for production use
TD-EXPRESS:~ # ctl
> hardware
Hardware
Enter CTL utility
Enter command


TD-EXPRESS:~ # ctl
> hardware
Hardware
Node min max avg min max avg
#nodes 1 cpus/node 1 1 1 nodes/clique 1 1
1
nodes w/AMPS 1 mips/cpu 359 359 359 arrays/clique 0 0
0
segmem/vproc(mb) 1109 1109 1109
VPROCS
Type Name ## Min Max AVG
1 AMP 2 vprocs/node 2 2 2 kmem/vproc 440320 440320 440320
2 PE 1 vprocs/node 1 1 1 kmem/vproc 0 0 0
3 GTW 1 vprocs/node 1 1 1 kmem/vproc 0 0 0
4 RSG 1 vprocs/node 1 1 1 kmem/vproc 0 0 0
5 TVS 1 vprocs/node 1 1 1 kmem/vproc 0 0 0
6 0 vprocs/node 0 0 0 kmem/vproc 0 0 0


> screen dbs
Command
(0) Minimum Node Action: Clique-Down
(1) Minimum Nodes Per Clique: 1 (2) FSG cache Percent: 30
(3) Clique Failure: Clique-Down (4) Cylinder Read: On
(5) Restart After DAPowerFail: On (6) Cylinder Read Ageing Thresho
ld: 0
(7) Maximum Fatal AMPs: 0

```
TD-EXPRESS:~ # pdeglobal fsg |more

-------- /var/opt/teradata/tdtemp/pdeglobal.dat --------

FSG:
  Cache: 1e (30%)
  VH Cache: 0 (0%)
  VH Cache Version: 1
  TotalPages: e0738  AvailPages: 35de4  TVSadj: 0
  Vprocs: 6 (6)  AMPs: 2 (2)  MemPerAmp: 1ae00000
  OneMegsPerAmp: 1ae  PdisksPerAmp: 1
  Depot: ON  HashAge: OFF  RWLockUpgrd: ON
  slotqsortthold: 1
  Pre-write: ON  Pw_iothreshold: a  Pw_max_io: 3  Oom_max_io: a  Pw_ahead_oom: 78 (120
)
  Pcache_oom: 60 (96%)  Pcache_pw: 5c (92%)
  Vcache_oom: 60 (96%)  Vcache_pw: 5c (92%)
```

Decimal value would be 450887680