## **Chapter 1: Getting Started – DevOps Concepts,** Tools, and Technologies

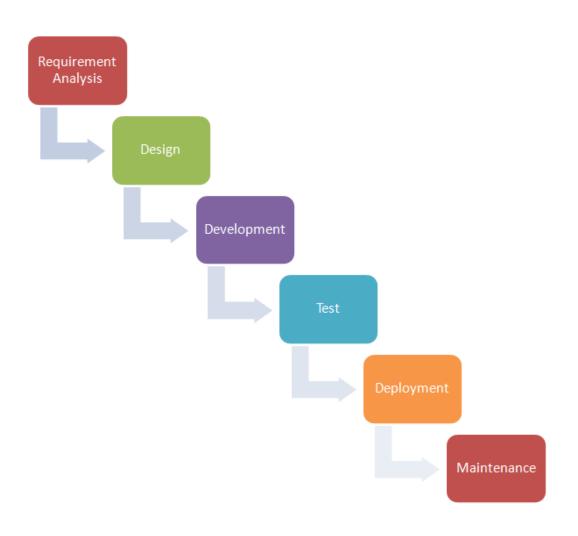
Increased rate of application releases and business unit requires speedy deployment in production environment

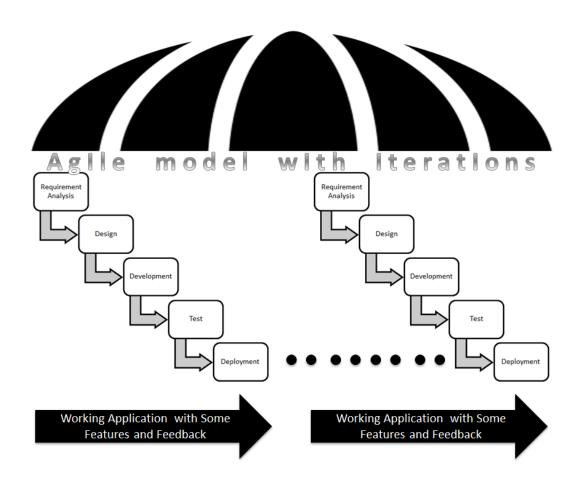
Very short duration to implement and deliver a change to a customer

To keep up with speed of change and manage risk by building a collaborative culture and automation Different Priorities of Development Team, QA Team and IT Operations Team

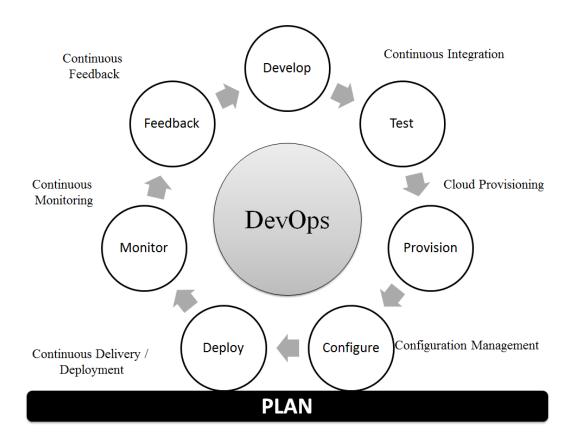
Need effective process for application monitoring and management

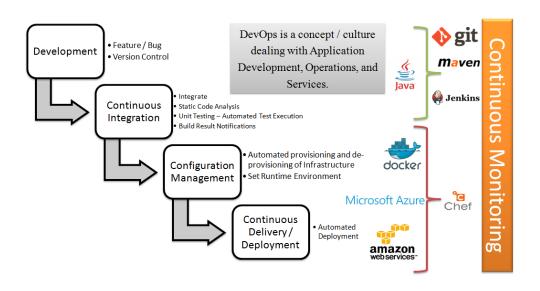
To manage different environments in standardize manner so changes are accommodated easily.

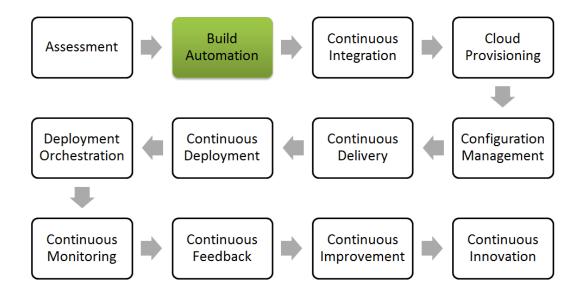


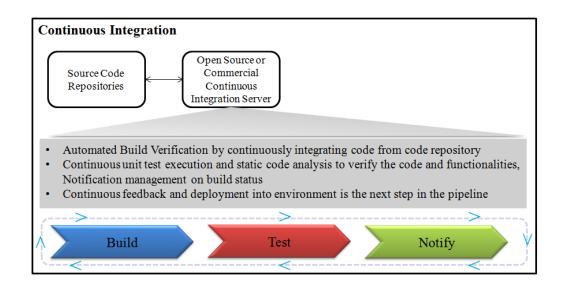


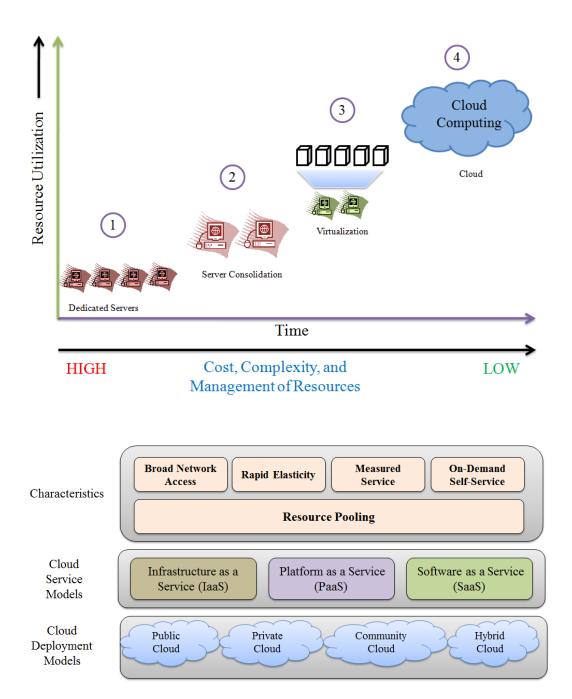
Automated deployments and Business and IT standardized configuration time consuming process to improve management for different end-user satisfaction agility environments Faster delivery of new Transformfeatures or resolution of Agility Efficient use of resources with Cost issues improved visibility, transparency into technology costs using Cloud resources High-level of quality for feature/function delivery Collaboration, Management, High-Quality and security for the complete application development lifecycle management Automation Better management of underlying business processes Better Redundancy / Continuous innovation because of Failover/Quick  $continuous\, development\, of\, new\, ideas$ Recovery

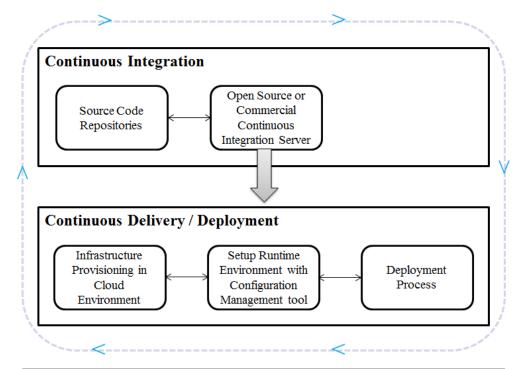




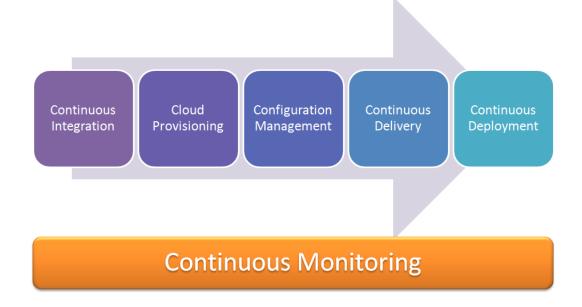


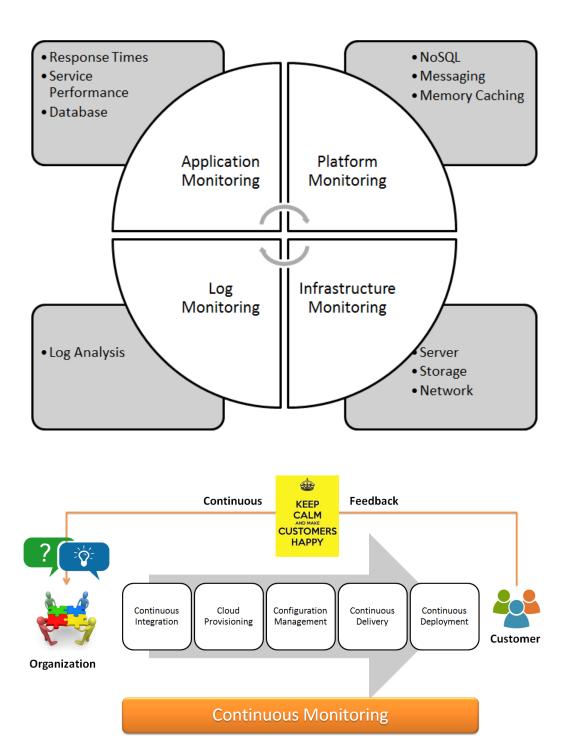


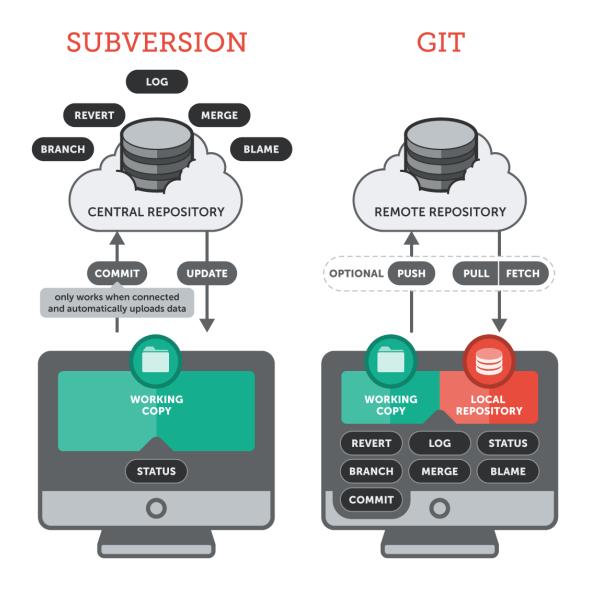




Production ready application by using automated process throughout application lifecycle.







Active feature implementation is developed within branches subdirectories

Feature Implementation is finished



Featured branch subdirectory is merged into trunk



Featureed Branch subdirectory is removed



Trunk-latest stable release of a project

History of all branches and tags within the .git directory



The latest stable release is available within the master branch



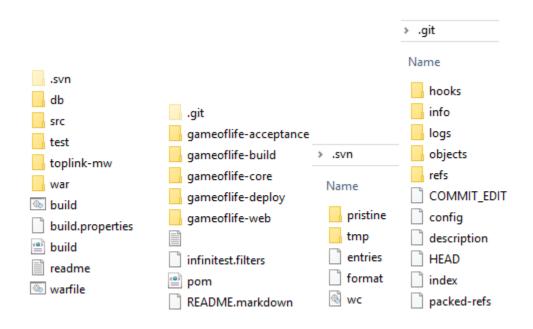
Active feature implementation is developed in separate branch

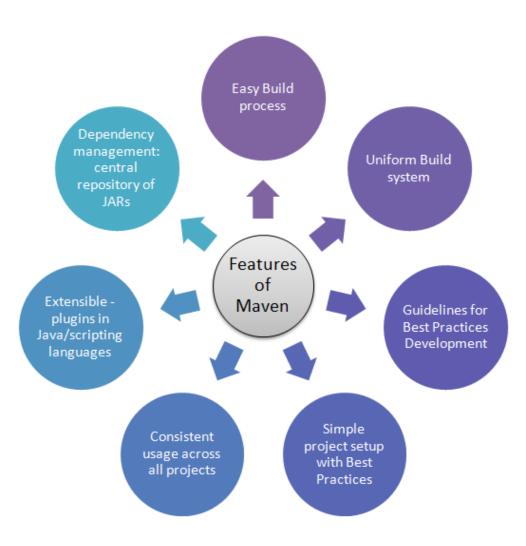


Featured branch subdirectory is merged into trunk



Featureed Branch subdirectory is removed

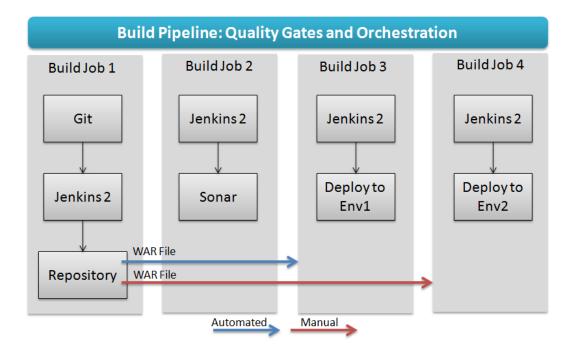


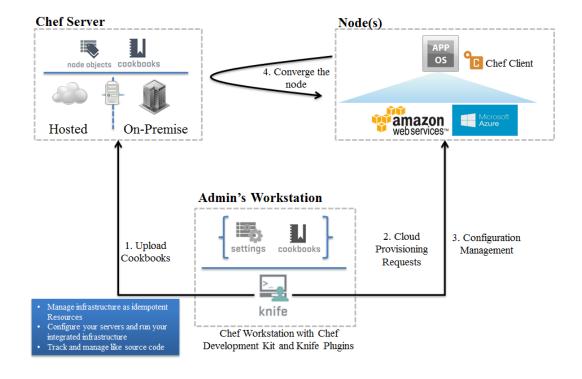


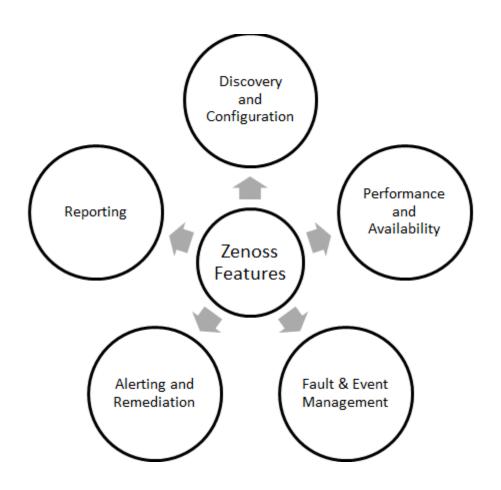
Automated Build Execution

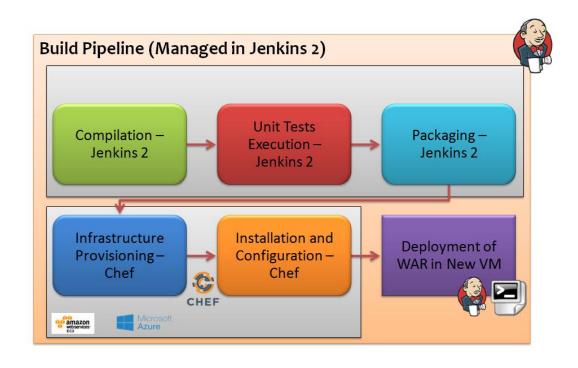
Build Status Notifications Automated Test Execution

Automated Deployment

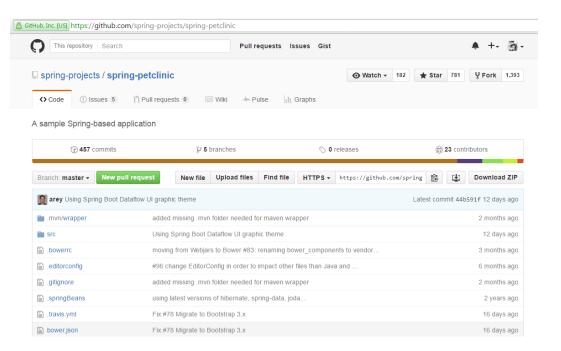










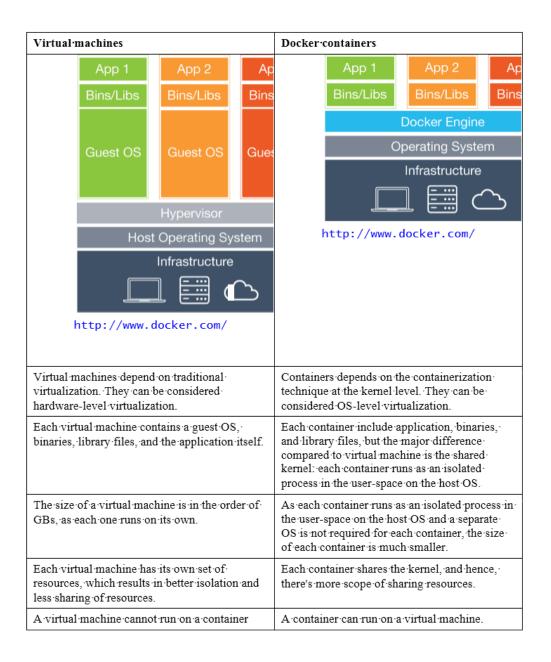




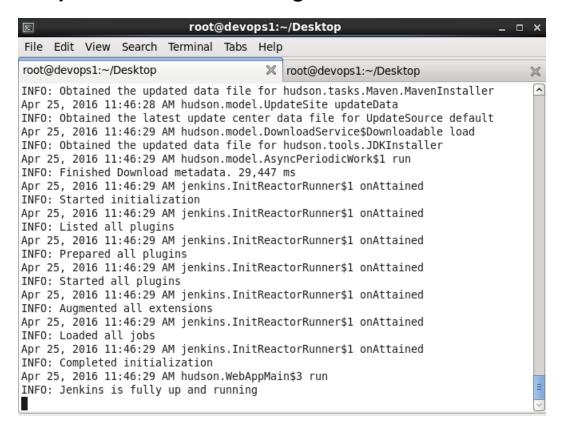
### Welcome

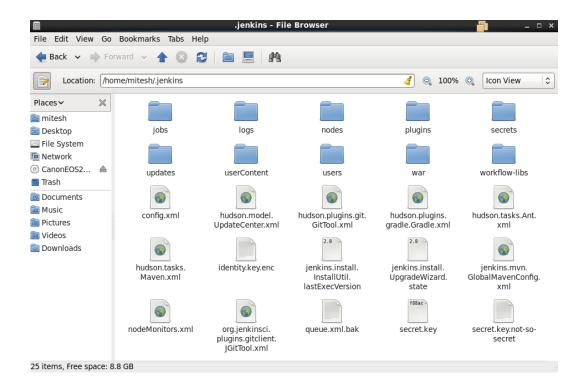


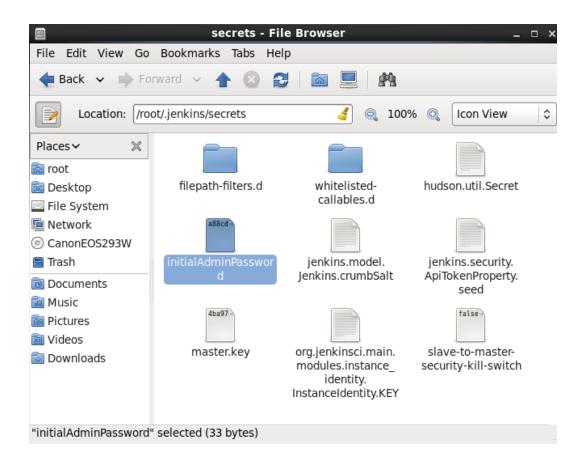




### **Chapter 2: Continuous Integration with Jenkins 2**







## **Unlock Jenkins**

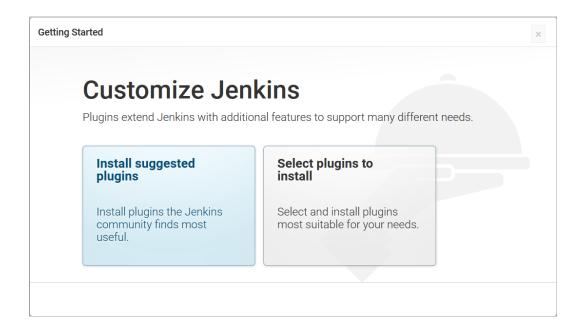
To ensure Jenkins is securely set up by the administrator, a password has been written to the log (not sure where to find it?) and this file on the server:

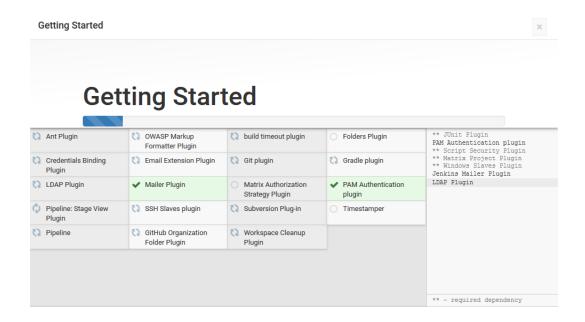
/root/.jenkins/secrets/initialAdminPassword

Please copy the password from either location and paste it below.

Administrator password

Continue





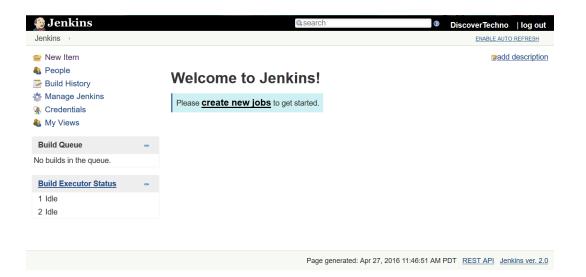
Getting Started ×						
	Creat	e First A	dmin	User		
	Username:	discovertechno				
	Password:	•••••				
	Confirm password:	•••••				
	Full name:	DiscoverTechno				
	E-mail address:					

## **Getting Started**

# Jenkins is ready!

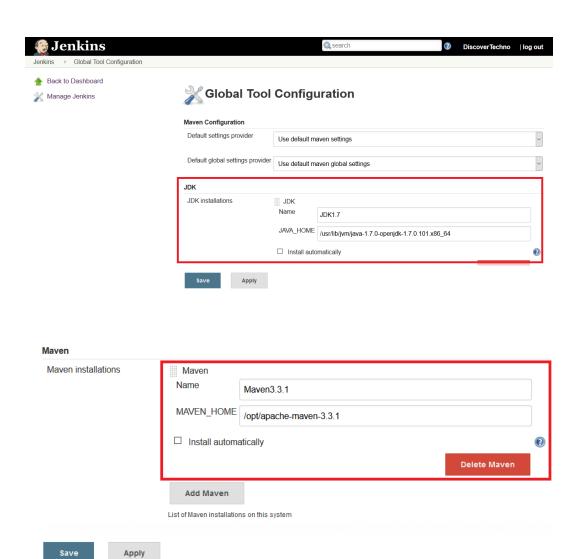
Your Jenkins setup is complete.

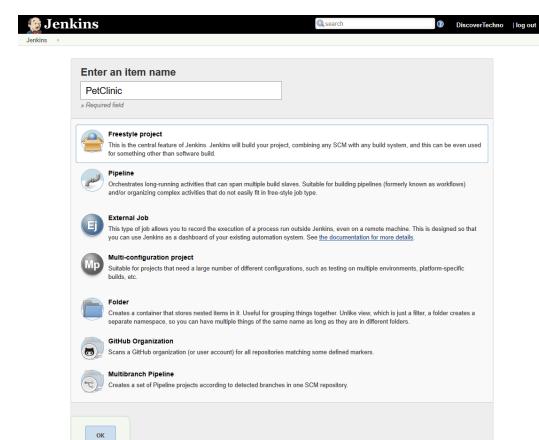
Start using Jenkins



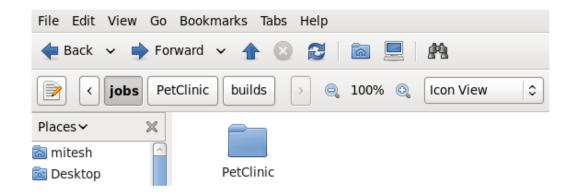






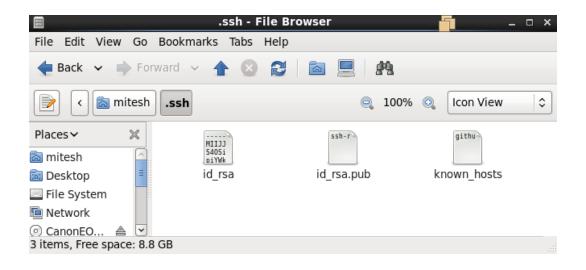


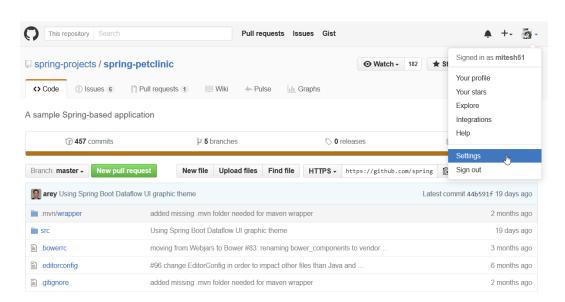
Page generated: Apr 26, 2016 8:37:53 PM PDT REST API Jenkins ver. 2.0

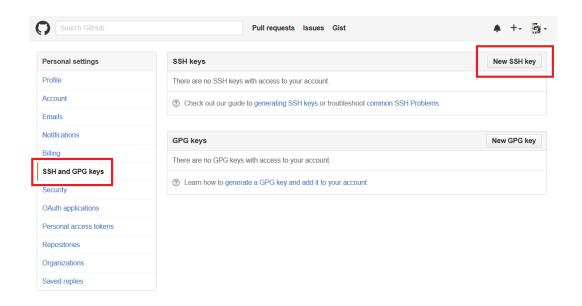


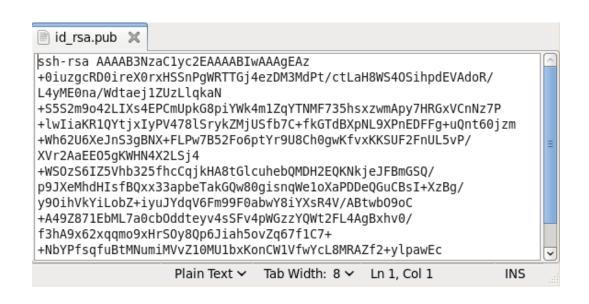
```
[mitesh@devops1 git]$ ssh-keygen -t rsa -b 4096 -C "@gmail.com"
Generating public/private rsa key pair.
Enter file in which to save the key (/home/mitesh/.ssh/id_rsa):
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in /home/mitesh/.ssh/id rsa.
Your public key has been saved in /home/mitesh/.ssh/id_rsa.pub.
The key fingerprint is:
d5:48:73:9f:94:d8:02:32:75:5d:c8:08:da:33:2b:5d mitesh.soni83@gmail.com
The key's randomart image is:
+--[ RSA 4096]----+
        0.*00*.+.
         * *+0*.
        . * E.o
         0 =
        S o
[mitesh@devops1 git]$
```

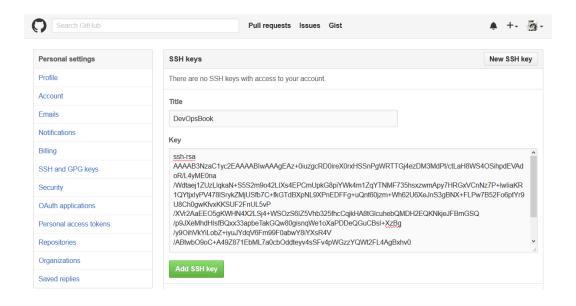
```
[mitesh@devops1 git]$ ssh-add ~/.ssh/id_rsa
Identity added: /home/mitesh/.ssh/id_rsa (/home/mitesh/.ssh/id_rsa)
[mitesh@devops1 git]$ ■
```

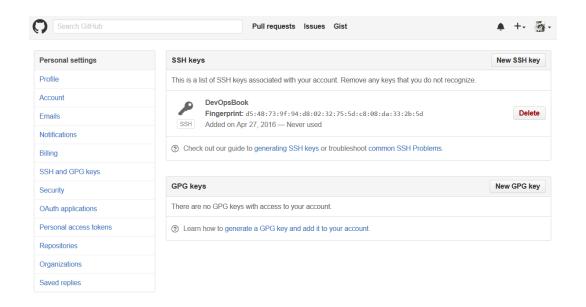






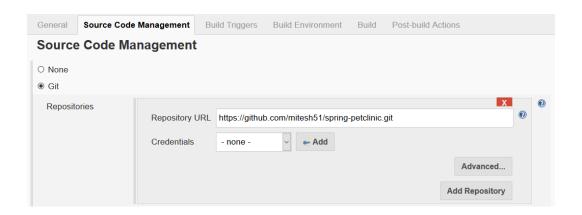


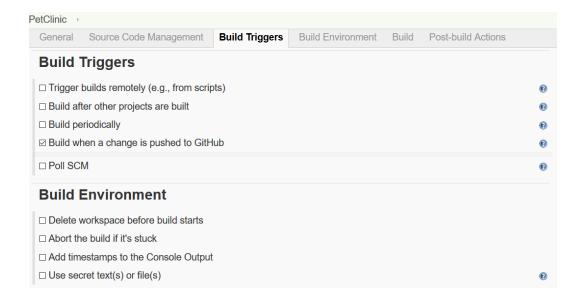


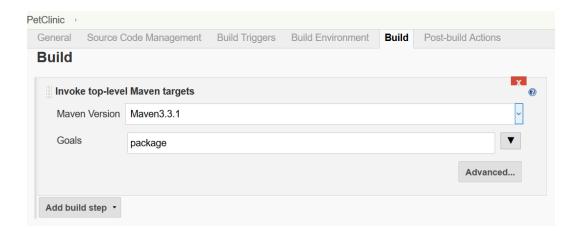








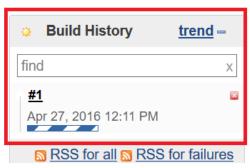






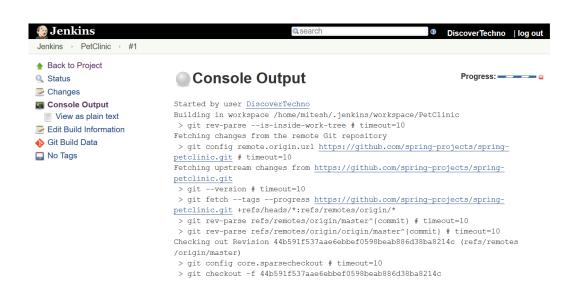


# GitHub Permalinks

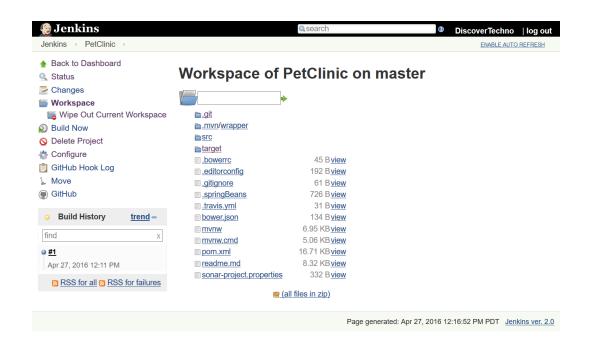


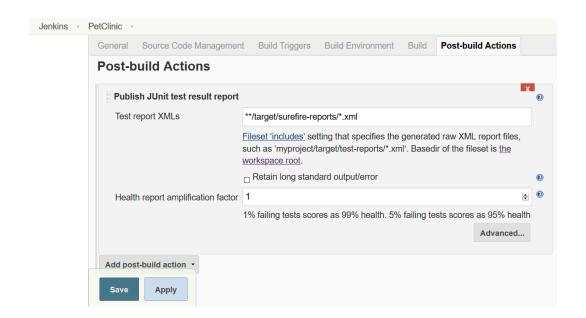
Workspace

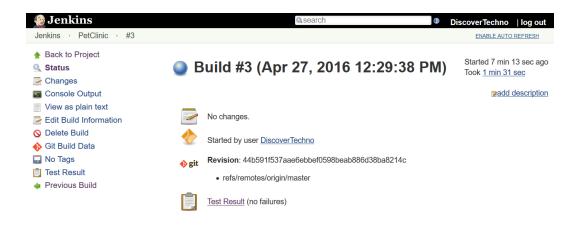
Move



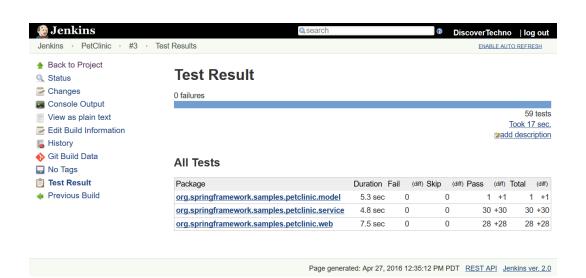
### Jenkins → PetClinic → #1 [INFO] --- maven-war-plugin:2.3:war (default-war) @ spring-petclinic ---[INFO] Packaging webapp [INFO] Assembling webapp [spring-petclinic] in [/home/mitesh/.jenkins/workspace /PetClinic/target/spring-petclinic-4.2.5-SNAPSHOT] [INFO] Processing war project [INFO] Copying webapp resources [/home/mitesh/.jenkins/workspace/PetClinic /src/main/webapp] [INFO] Webapp assembled in [12697 msecs] [INFO] Building war: /home/mitesh/.jenkins/workspace/PetClinic/target /petclinic.war [INFO] ---[INFO] BUILD SUCCESS [INFO] -[INFO] Total time: 03:14 min [INFO] Finished at: 2016-04-27T12:15:29-07:00 [INFO] Final Memory: 27M/214M [INFO] ----Finished: SUCCESS

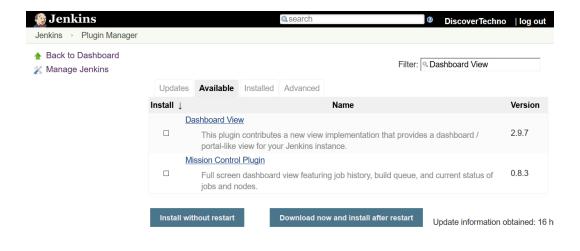




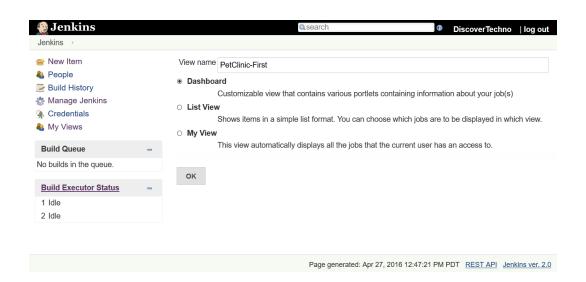


Page generated: Apr 27, 2016 12:36:52 PM PDT REST API Jenkins ver. 2.0

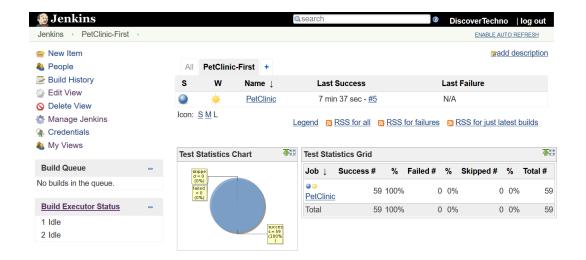


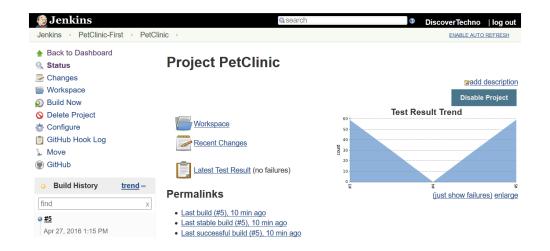


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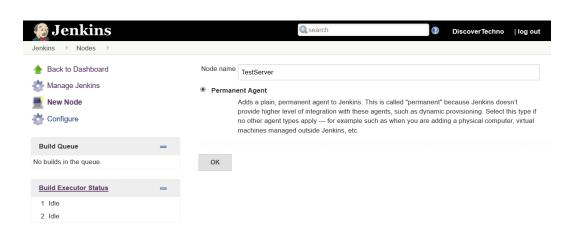


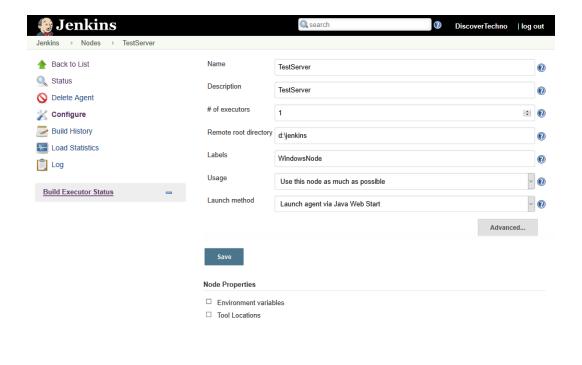
# Dashboard Portlets ☑ Show standard Jenkins list at the top of the page ☐ Full screen view - hide standard Jenkins panels ☐ Set CSS custom parameters Portlets at the top of the page Add Dashboard Portlet to the top of the view Portlets in the left column Test Statistics Chart Display name Test Statistics Chart



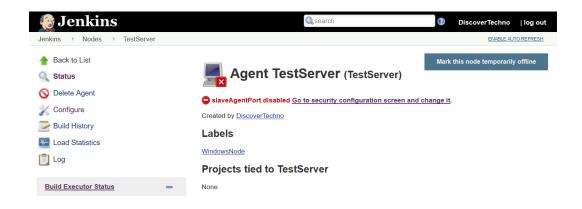




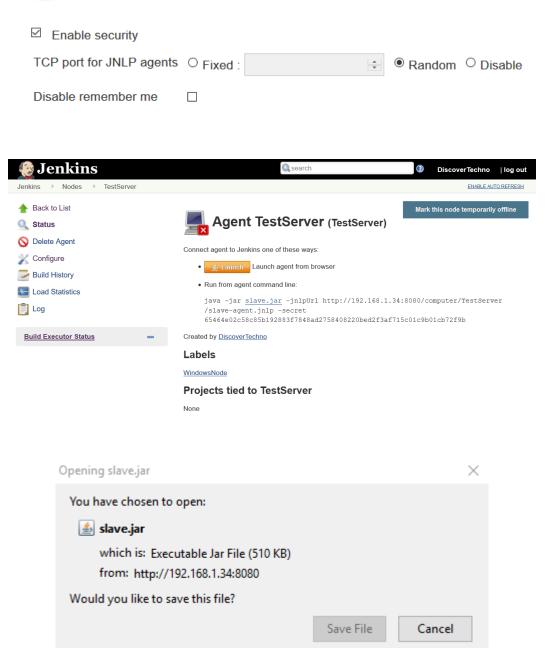




Page generated: Apr 27, 2016 7:26:29 PM PDT REST API Jenkins ver. 2.0









Connected via JNLP agent.

Created by DiscoverTechno

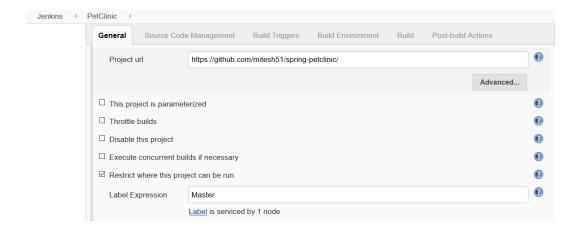
# Labels

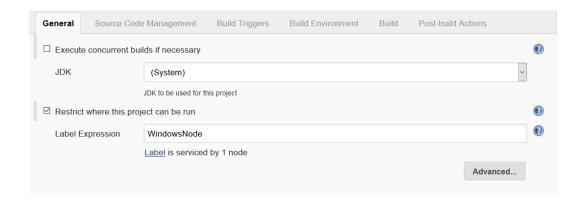
WindowsNode

# **Projects tied to TestServer**

None

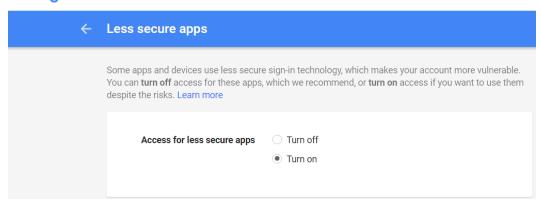




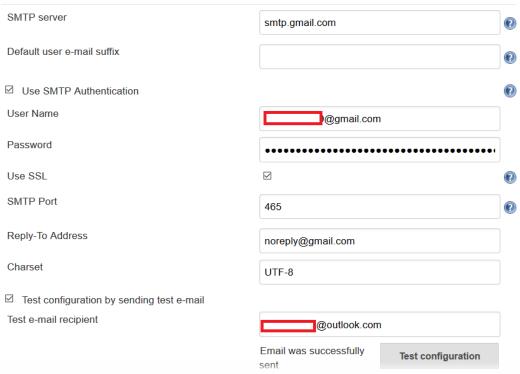


# Node Properties ☐ Environment variables ☐ Tool Locations List of tool locations Name (Git) Default ☐ C:\Program Files\Git\bin\git.exe ☐ Delete Name (JDK) WindowsJDK ☐ Home C:\Program Files\Java\jdk1.8.0 ☐ Delete Name (Maven) WindowsMaven ☐ Home C:\apache-maven-3.3.1 ☐ Delete ☐ Delete

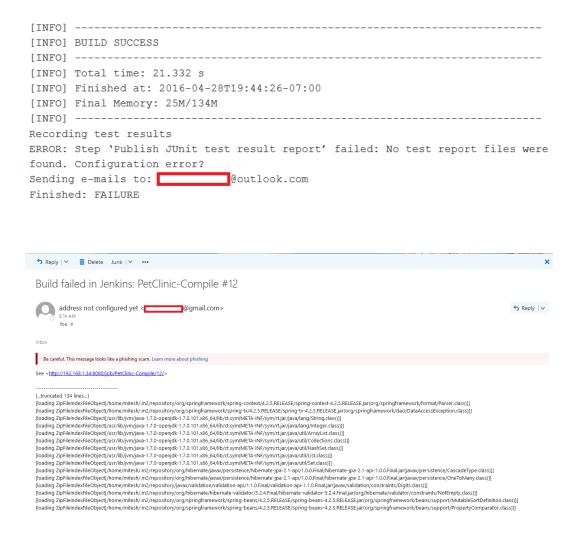
# Google



# E-mail Notification



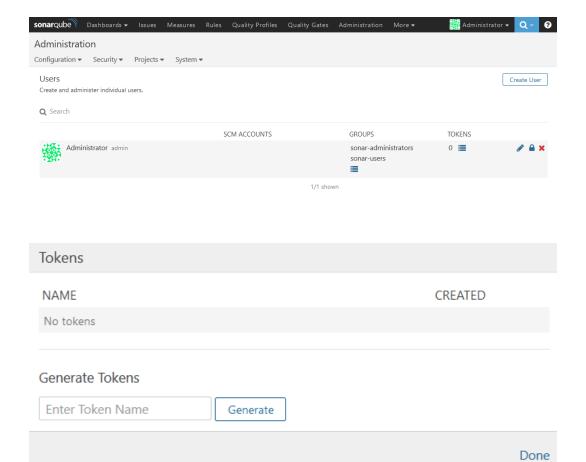


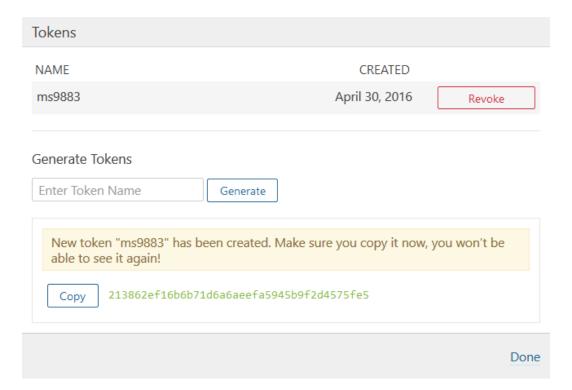


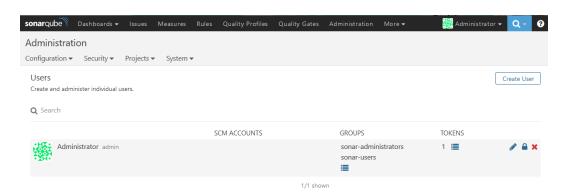
Upda	ates Available	Installed	Advanced					
Install ↓			Na	ame	Vers	sion		
	CodeSonar Plugir	<u>1</u>			1.0.	1		
V	SonarQube Plugir This plugin al Continuous Ir	- low easy inte		narQube™, the open source p	platform for 2.4			
	Sonargraph Integration Jenkins Plugin  This plugin integrates Sonargraph version 8 and newer into your build. Sonargraph allows to define an architecture for a software system and automatically checks how the code base conforms to it. For Sonargraph version 7 use Sonargraph Plugin.							
	Sonargraph Plugin  This plugin integrates Sonargraph version 7 into your build. Sonargraph allows to  define an architecture for a refluence custom and automatically absolve how the code.							
Install without restart			Download now and install after restart  Update informa		Update information of	obtaine		

```
D:\##DevOps Book\Installables\sonarqube-5.4\bin\windows-x86-64>StartSonar.bat
wrapper | --> Wrapper Started as Console
wrapper | Launching a JVM...

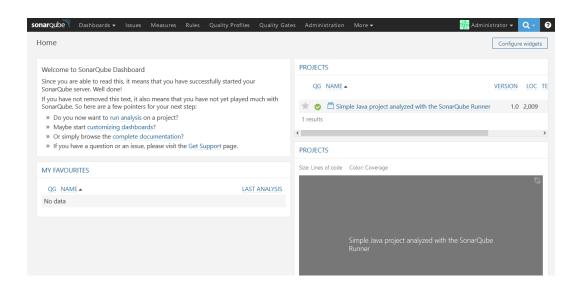
jwm 1 | Wrapper (Version 3.2.3) http://wrapper.tanukisoftware.org
jvm 1 | Copyright 1999-2006 Tanuki Software, Inc. All Rights Reserved.
jvm 1 | 2016.04.29 23:57:37 INFO app[o.s.a.AppFileSystem] Cleaning or creating temp directory D:\##DevOps Book\Install
ables\sonarqube-5.4\temp
jvm 1 | 2016.04.29 23:57:38 INFO app[o.s.p.m.JavaProcessLauncher] Launch process[search]: C:\Program Files\Java\jre1.8
0.45\bin\java -Djava.awt.headless=true -Xmx1G -Xms256m -Xss256k -Djava.net.preferIPv4Stack=true -XX:+UseParNewGC -XX:+Use
ConcMarkSweepGC -XX:CMSInitiatingOccupancyFraction=75 -XX:+UseCMSInitiatingOccupancyOnly -XX:+HeapDumpOnOutOfMemoryFror -
Djava.io.tmpdir=D:\##DevOpS Book\Installables\sonarqube-5.4\temp -cp ./lib/common/*;./lib/search/* org.sonar.search.Search
Server C:\Users\MItesh\AppData\Local\Temp\sq-process7000722619322287622properties
jvm 1 | 2016.04.29 23:57:49 INFO app[o.s.p.m.Monitor] Process[search] is up
jvm 1 | 2016.04.29 23:57:49 INFO app[o.s.p.m.JavaProcessLauncher] Launch process[web]: C:\Program Files\Java\jre1.8.0
45\bin\java -Djava.awt.headless=true -Dfile.encoding=UTF-8 -Djruby.management.enabled=false -Djruby.compile.invokedynamic
efalse -Xmx768m -Xms256m -XX:MaxPermSize=160m -XX:+HeapDumpOnOutOfMemoryFror -Djava.net.preferIPv4Stack=true -Djava.io.tmp
dir=D:\##DevOps Book\Installables\sonarqube-5.4\temp -cp ./lib/common/*;./lib/server/*;D:\##DevOps Book\Install
```

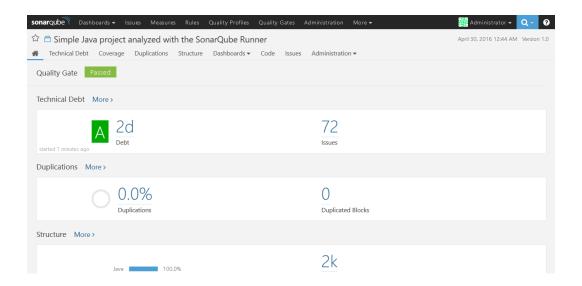


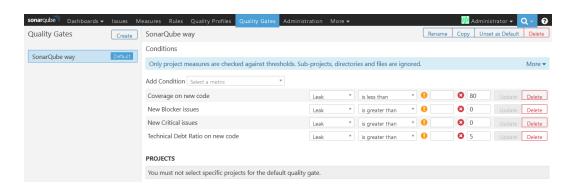


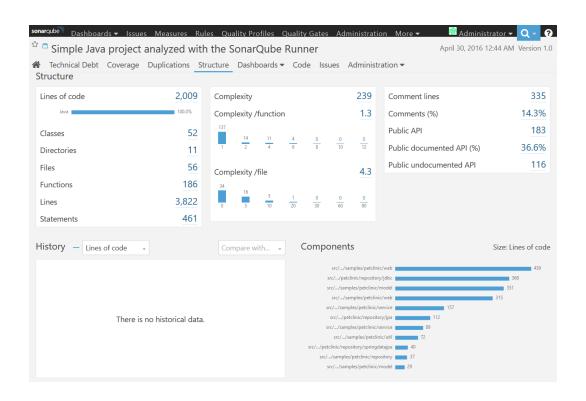


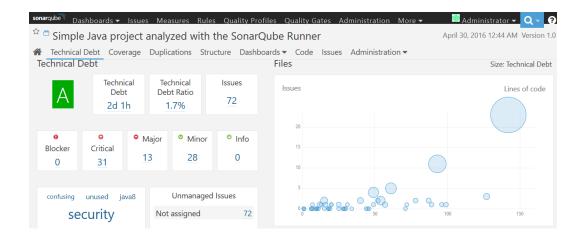
Environment variables	☐ Enable injection of SonarQube server configuration as build environment variables				
	If checked, job administrators will be able to inject a SonarQube server configuration as environment variables in the build.				
SonarQube installations	Name	Sonar5.4  http://localhost:9000  Default is http://localhost:9000			
	Server URL				
	Server version	5.3 or higher	~		
		Configuration fields depend on the SonarQube server version.			
	Server authentication token				
		SonarQube authentication token. Mandatory when anonymous access is disabled.			
SonarQube Scanner SonarQube Scanner installations	## SanarOuha Scanner				
Solidi Qube Scalliel Ilistaliations	Name SonarQube Scanner	SonarQube Scanner  Name Congroups Scanner			
	SonarQube Scanner				
	✓ Install automatically				
	Install from Maven Central  Version SonarQube Scanner 2.5.1				



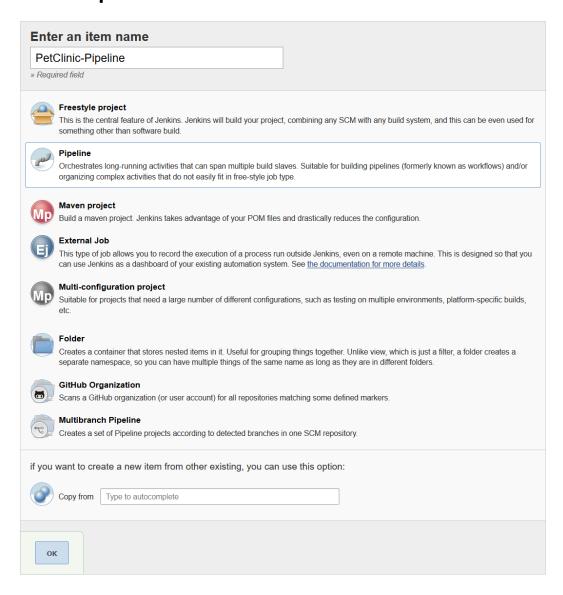


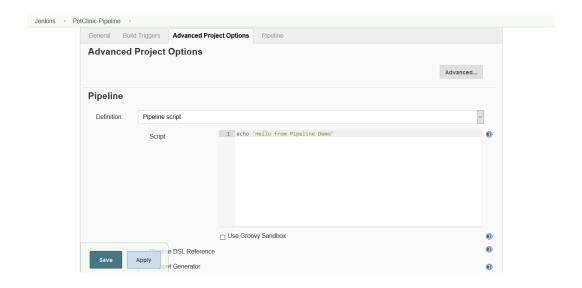






# **Chapter 3: Building the Code and Configuring the Build Pipeline**





# Pipeline PetClinic-Pipeline

add description



# Stage View

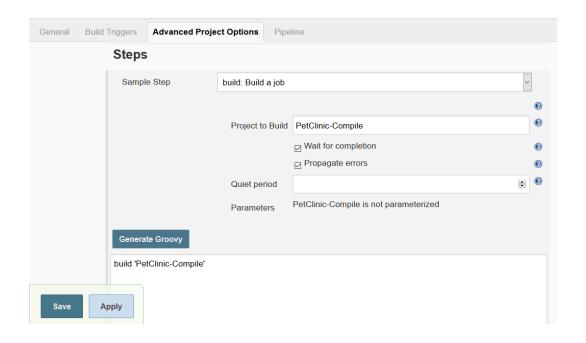
This Pipeline has run successfully, but does not define any stages. Please use the stage step to define some stages in this Pipeline.

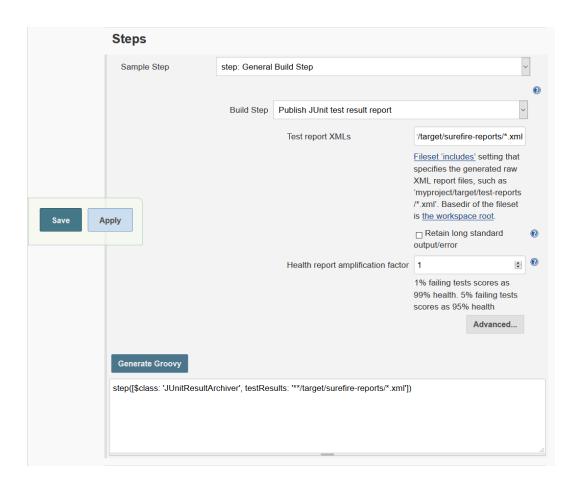
## **Permalinks**

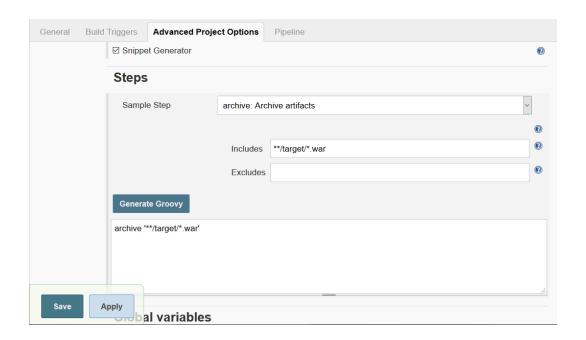
- Last build (#1), 2 min 17 sec ago
- Last stable build (#1), 2 min 17 sec ago
  Last successful build (#1), 2 min 17 sec ago
  Last completed build (#1), 2 min 17 sec ago
  Last completed build (#1), 2 min 17 sec ago



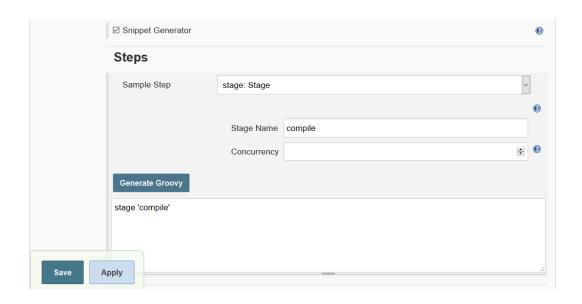
Pipeline StepsPrevious Build

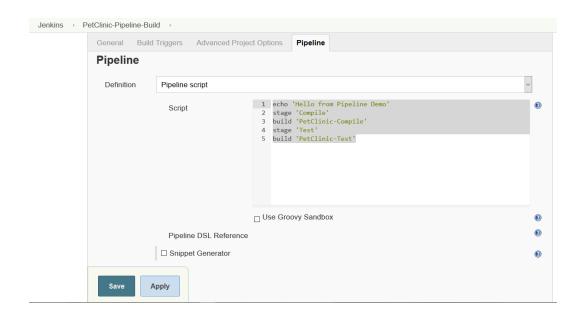


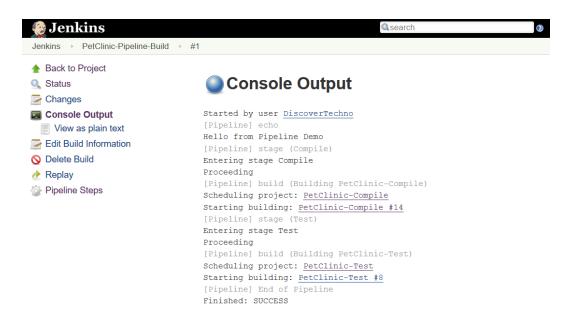


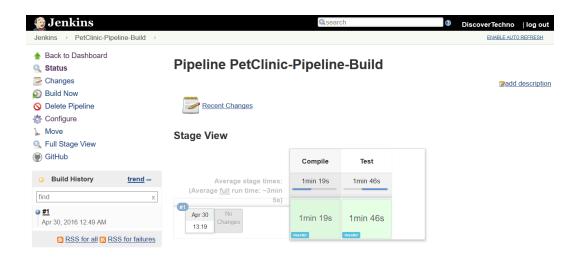






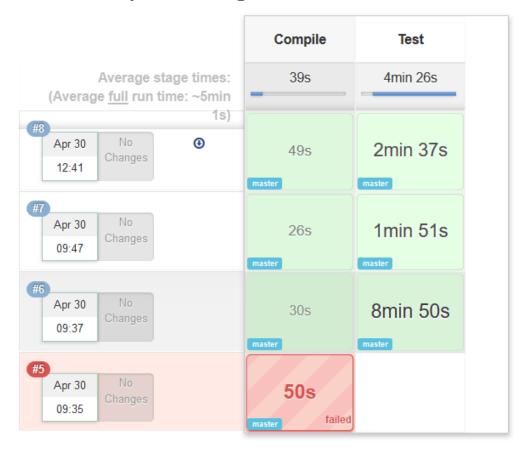




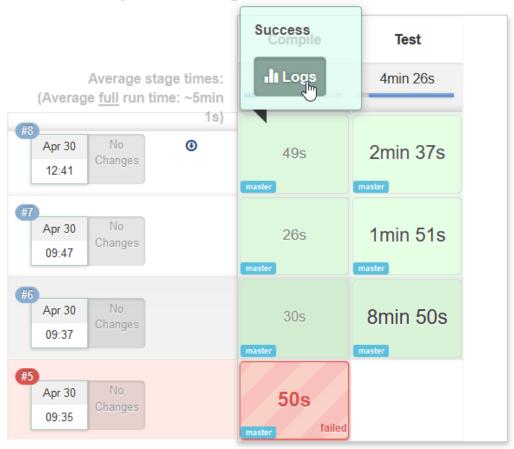


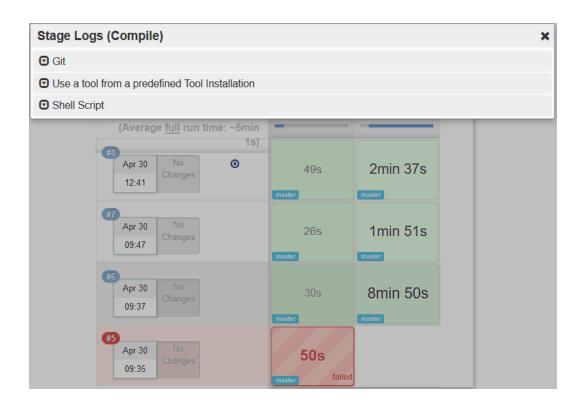


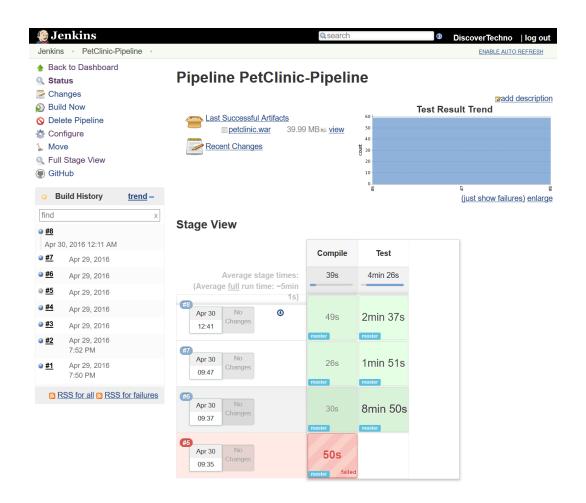
# PetClinic-Pipeline - Stage View

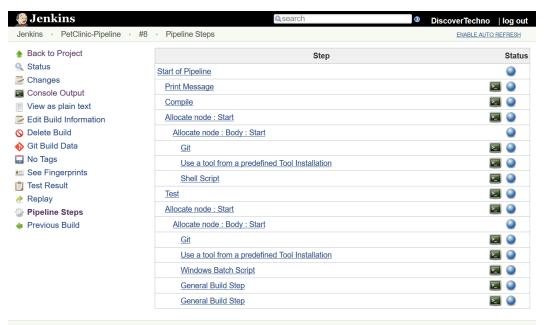


# PetClinic-Pipeline - Stage View



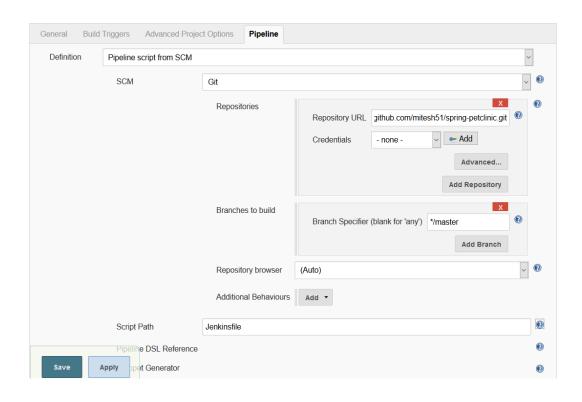


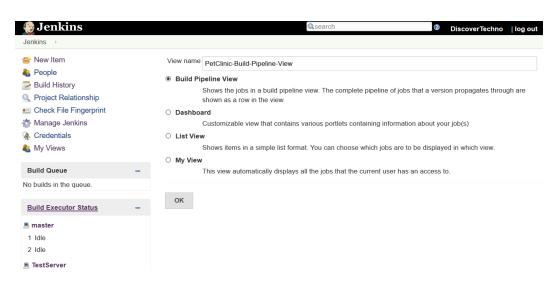


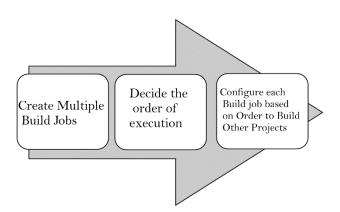


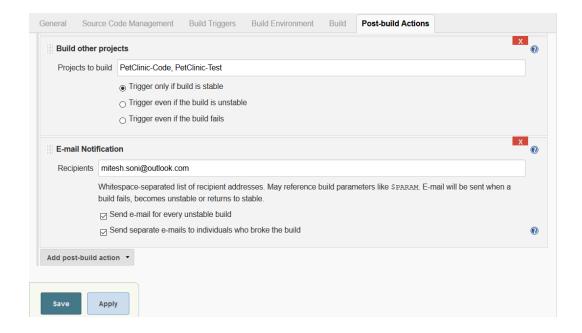
Page generated: Apr 30, 2016 12:33:27 AM PDT Jenkins ver. 2.0

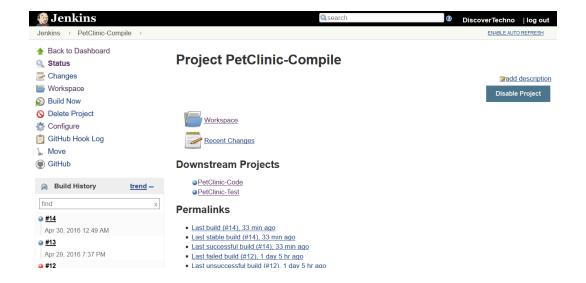
# Stage Logs (Compile) × Git > git rev-parse --is-inside-work-tree # timeout=10 Fetching changes from the remote Git repository > git config remote.origin.url <a href="https://github.com/mitesh51/spring-petclinic.git">https://github.com/mitesh51/spring-petclinic.git</a> # tim eout=10 Fetching upstream changes from <a href="https://github.com/mitesh51/spring-petclinic.git">https://github.com/mitesh51/spring-petclinic.git</a> > git --version # timeout=10 > git fetch --tags --progress <a href="https://github.com/mitesh51/spring-petclinic.git">https://github.com/mitesh51/spring-petclinic.git</a> +refs/ heads/\*:refs/remotes/origin/\* > git rev-parse refs/remotes/origin/master^{commit} # timeout=10 > git rev-parse refs/remotes/origin/origin/master^{commit} # timeout=10 Checking out Revision 44b591f537aae6ebbef0598beab886d38ba8214c (refs/remotes/origin/ma ster) > git config core.sparsecheckout # timeout=10 > git checkout -f 44b591f537aae6ebbef0598beab886d38ba8214c # timeout=10 > git branch -a -v --no-abbrev # timeout=10 > git branch -D master # timeout=10 **☑** Use a tool from a predefined Tool Installation Shell Script







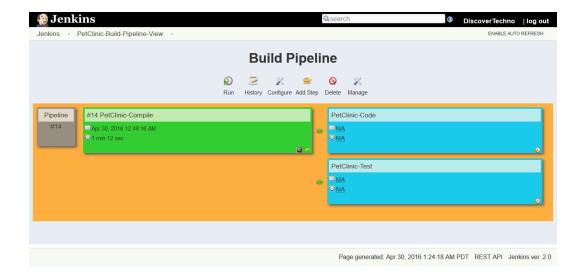


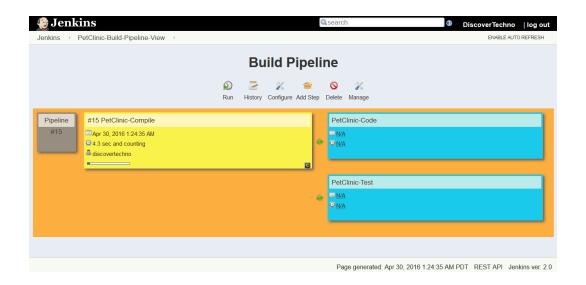


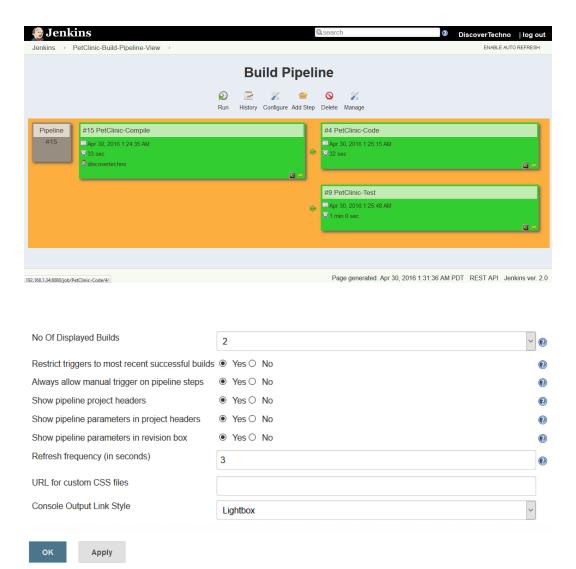
Name	PetClinic-Build-Pipeline-View	
Description		
		•
	[Plain text] Preview	
Filter build queue		?
Filter build executors		•
Build Pipeline View Title		
Layout	Based on upstream/downstream relationship	~
	Select Initial Job PetClinic-Compile	<b>•</b>
No Of Displayed Builds	1	~
Restrict triggers to most recent successful builds	○ Yes ● No	<b>?</b>
Always allow manual trigger on pipeline steps	○ Yes ● No	•
Show pipeline project headers	○ Yes ● No	•
Show pipeline parameters in project headers	○ Yes ● No	?
Show pipeline parameters in revision box	○ Yes   No	?
Refresh frequency (in seconds)	3	•
LIDL 6 4 000 FI		
URL for custom CSS files		

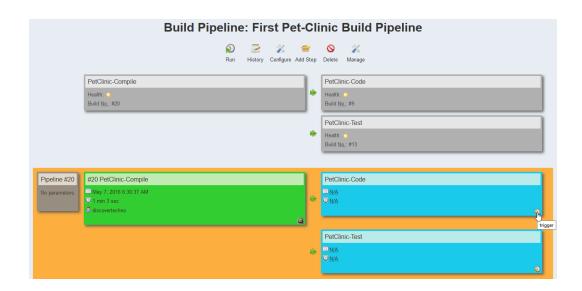
Apply

ок





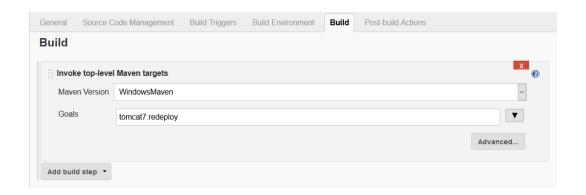




## Build History of PetClinic-Build-Pipeline-View



Export a	as plain XML			
	Build	Time Since ↑	Status	
	PetClinic-Code #9	1 day 4 hr	stable	
	PetClinic-Code #8	1 day 21 hr	stable	
	PetClinic-Test #13	1 day 21 hr	stable	
	PetClinic-Compile #19	1 day 21 hr	stable	



[INFO] maven-war-plugin:2.3:war (default-war) @ spring-petclinic
[INFO] Packaging webapp
[INFO] Assembling webapp [spring-petclinic] in [d:\jenkins\workspace\PetClinic-Deploy\target\spring-
petclinic-4.2.5-SNAPSHOT]
[INFO] Processing war project
[INFO] Copying webapp resources [d:\jenkins\workspace\PetClinic-Deploy\src\main\webapp]
[INFO] Webapp assembled in [969 msecs]
[INFO] Building war: d:\jenkins\workspace\PetClinic-Deploy\target\spring-petclinic-4.2.5-SNAPSHOT.war
[INFO]
[INFO] <<< tomcat7-maven-plugin:2.2:redeploy (default-cli) < package @ spring-petclinic <<<
[INFO]
[INFO] tomcat7-maven-plugin:2.2:redeploy (default-cli) @ spring-petclinic
[INFO] Deploying war to http://192.168.1.35:9999/petclinic
Uploading: http://192.168.1.35:9999/manager/text/deploy?path=%2Fpetclinic&update=true
40002/40946 KB
40004/40946 KB
40006/40946 KB
40008/40946 KB
40010/40946 KB
40012/40946 KB







INFO] maven-war-plugin:2.3:war (default-war) @ spring-petclinic	
INFO] Packaging webapp	
INFO] Assembling webapp [spring-petclinic] in [d:\jenkins\workspace\PetClinic-Test\target\spring	<b>J</b> -
etclinic-4.2.5-SNAPSHOT]	
INFO] Processing war project	
INFO] Copying webapp resources [d:\jenkins\workspace\PetClinic-Test\src\main\webapp]	
INFO] Webapp assembled in [2371 msecs]	
INFO] Building war: d:\jenkins\workspace\PetClinic-Test\target\spring-petclinic-4.2.5-SNAPSHOT.v	<i>l</i> ar
INFO]	
INFO] BUILD SUCCESS	
INFO]	
INFO] Total time: 35.535 s	
INFO] Finished at: 2016-05-08T00:53:30+05:30	
INFO] Final Memory: 29M/271M	
INFO]	
rchiving artifacts	
ecording test results	

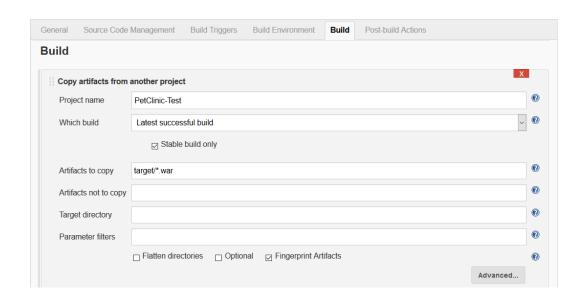
Warning: you have no plugins providing access control for builds, so falling back to legacy behavior of permitting any downstream builds to be triggered

Triggering a new build of PetClinic-Deploy

Finished: SUCCESS

Filter: Q copy artifact Updates Available Installed Advanced Install ↓ Name Version Artifact Deployer Plug-in 0.33 This plugin makes it possible to copy artifacts to remote locations. Copy Artifact Plugin 1.38 Adds a build step to copy artifacts from another project. Download now and install after restart

Update information obtained: 22 hr ago

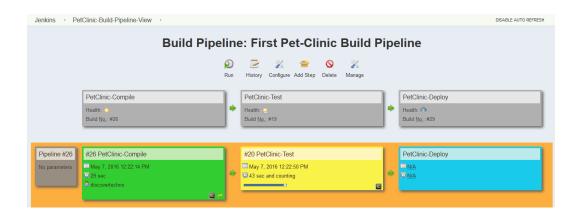


New Volume (D:) > jenkins > workspace > PetClinic-Test > target

Name	Date modified	Туре
classes	4/28/2016 8:43 AM	File folder
generated-sources	4/28/2016 8:42 AM	File folder
generated-test-sources	4/28/2016 8:43 AM	File folder
maven-archiver	5/8/2016 12:27 AM	File folder
maven-status	4/28/2016 8:42 AM	File folder
spring-petclinic-4.2.5-SNAPSHOT	5/8/2016 12:27 AM	File folder
surefire-reports	4/28/2016 8:43 AM	File folder
test-classes	4/28/2016 8:43 AM	File folder

New Volume (D:) > jenkins > workspace > PetClinic-Deploy > target

Name	Date modified	Туре
classes	5/7/2016 10:33 PM	File folder
generated-sources	5/7/2016 10:33 PM	File folder
generated-test-sources	5/7/2016 10:33 PM	File folder
maven-archiver	5/7/2016 10:46 PM	File folder
maven-status	5/7/2016 10:33 PM	File folder
spring-petclinic-4.2.5-SNAPSHOT	5/7/2016 10:46 PM	File folder
surefire-reports	5/7/2016 10:34 PM	File folder
test-classes	5/7/2016 10:33 PM	File folder

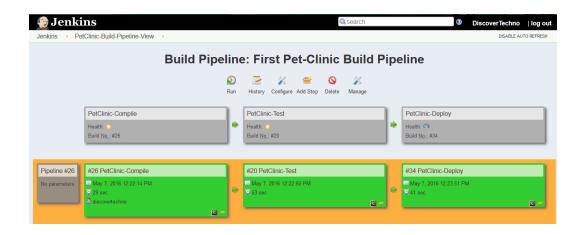


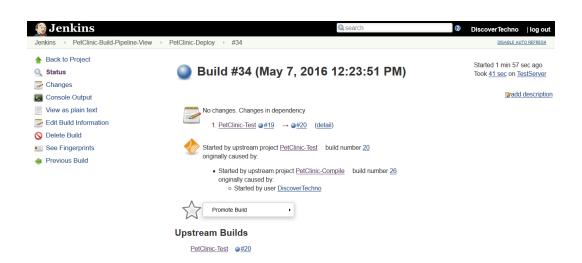
```
Tests run: 59, Failures: 0, Errors: 0, Skipped: 0
[INFO]
[INFO] --- maven-war-plugin:2.3:war (default-war) @ spring-petclinic ---
[INFO] Packaging webapp
[INFO] Assembling webapp [spring-petclinic] in [d:\jenkins\workspace\PetClinic-Test\target\spring-
petclinic-4.2.5-SNAPSHOT]
[INFO] Processing war project
[INFO] Copying webapp resources [d:\jenkins\workspace\PetClinic-Test\src\main\webapp]
[INFO] Webapp assembled in [2371 msecs]
[INFO] Building war: d:\jenkins\workspace\PetClinic-Test\target\spring-petclinic-4.2.5-SNAPSHOT.war
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 35.535 s
[INFO] Finished at: 2016-05-08T00:53:30+05:30
[INFO] Final Memory: 29M/271M
[INFO] ---
Archiving artifacts
Recording test results
Warning: you have no plugins providing access control for builds, so falling back to legacy behavior
of permitting any downstream builds to be triggered
Triggering a new build of PetClinic-Deploy
Finished: SUCCESS
```

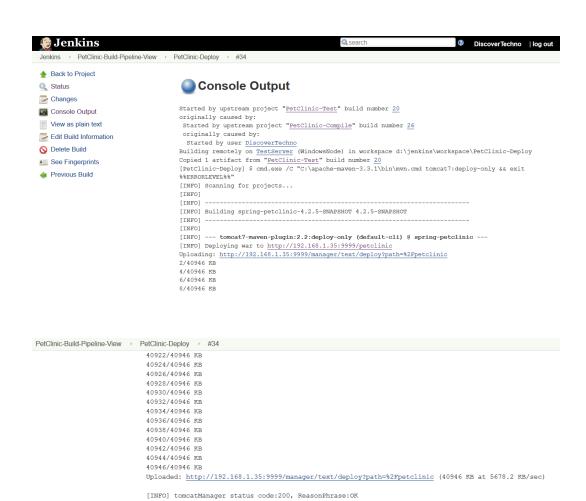
Page generated: May 7, 2016 12:24:06 PM PDT REST API Jenkins ver. 2.0

### New Volume (D:) > jenkins > workspace > PetClinic-Test > target

Name	Date modified	Туре	Size
classes	4/28/2016 8:43 AM	File folder	
generated-sources	4/28/2016 8:42 AM	File folder	
generated-test-sources	4/28/2016 8:43 AM	File folder	
maven-archiver	5/8/2016 12:27 AM	File folder	
maven-status	4/28/2016 8:42 AM	File folder	
spring-petclinic-4.2.5-SNAPSHOT	5/8/2016 12:27 AM	File folder	
surefire-reports	4/28/2016 8:43 AM	File folder	
test-classes	4/28/2016 8:43 AM	File folder	
spring-petclinic-4.2.5-SNAPSHOT.war	5/8/2016 12:53 AM	WAR File	40,946 k







[INFO] OK - Deployed application at context path /petclinic

[INFO] Finished at: 2016-05-08T00:54:31+05:30

[INFO] BUILD SUCCESS

Finished: SUCCESS

[INFO] Total time: 24.879 s

[INFO] Final Memory: 16M/154M

# **Chapter 4: Installing and Configuring Chef**

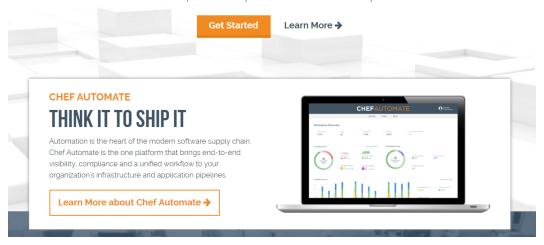


events blog support account management console Q

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# **AUTOMATE YOUR INFRASTRUCTURE**

Embrace DevOps. Achieve speed, scale and consistency with Chef.



### **CHEF**

### Sign In

Username or Email Address

Password

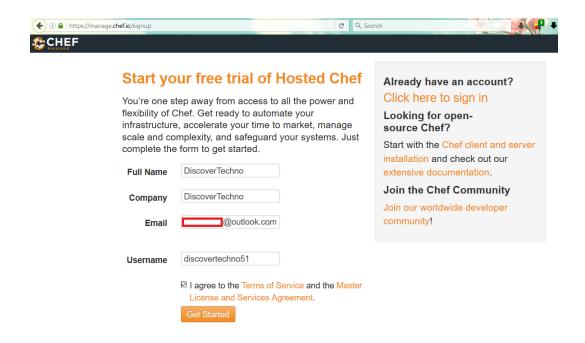
Sign In

Forgot your password?

#### Don't have an account?

You're one step away from access to all the power and flexibility of Chef. Get ready to automate your infrastructure, accelerate your time to market, manage scale and complexity, and safeguard your systems.

Click here to get started!



#### **CHEF**

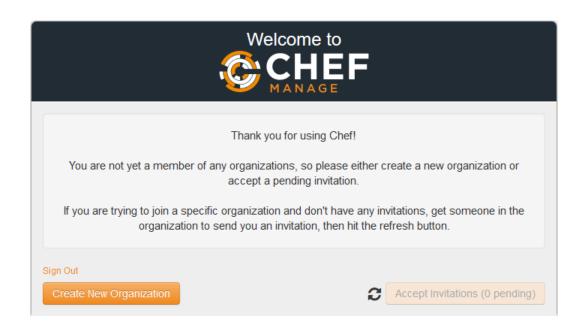
Thanks for signing up!

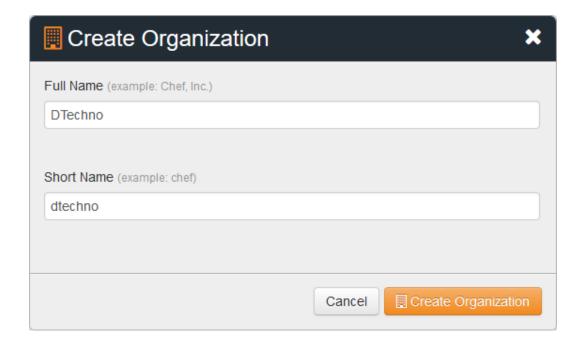
We've just sent you an email to verify your email address. Click the link in the email to finish the creation of your account.

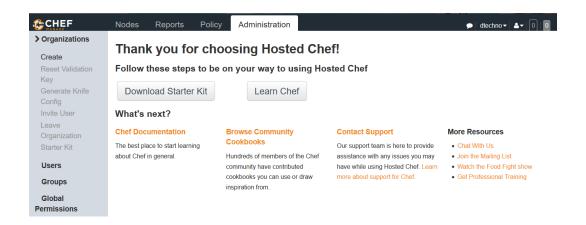
### **Email Verification Successful**

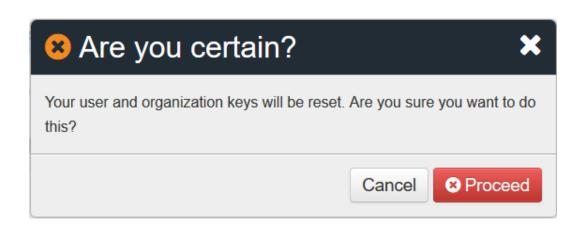
Thank you for verifying your email address! Please enter the password you'd like to use below and submit the form to complete the creation of your account.

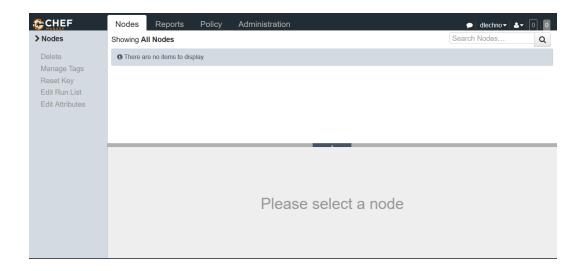
Password	•••••	
	Create User	

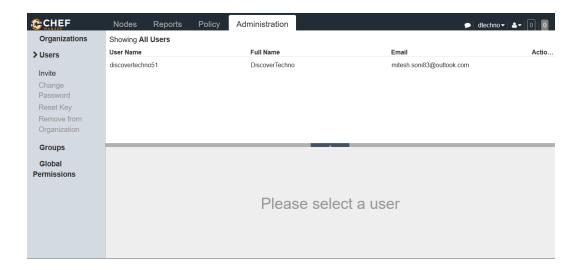


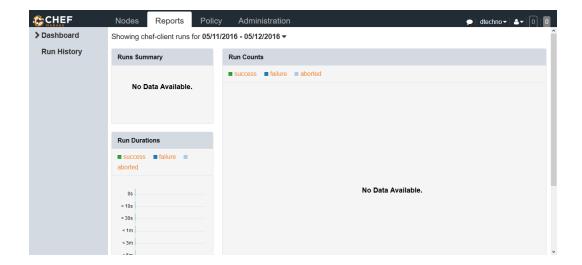










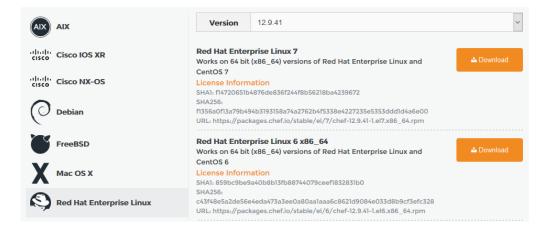


CHEF DOWNLOADS CHEF DEVELOPMENT KIT CHEF SERVER CHEF CLIENT



### **Chef Client**

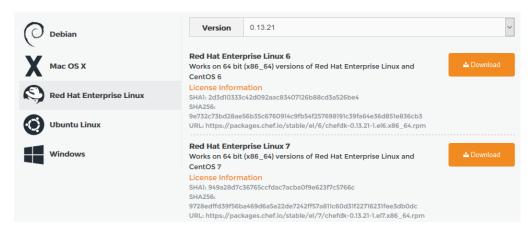
The Chef client works with the Chef server to bring systems to their desired states with policies you provide as recipes.

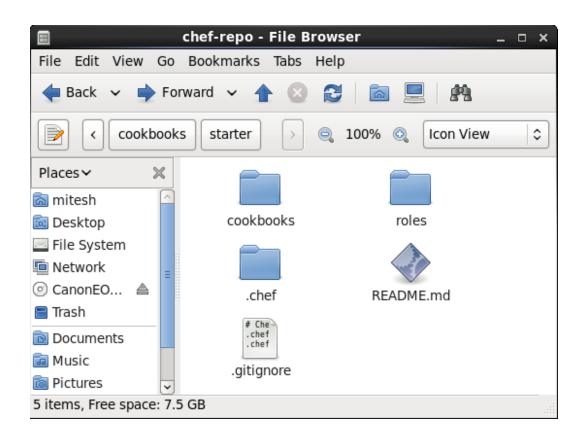




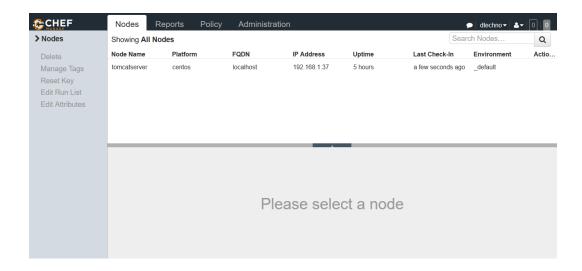
### Chef Development Kit

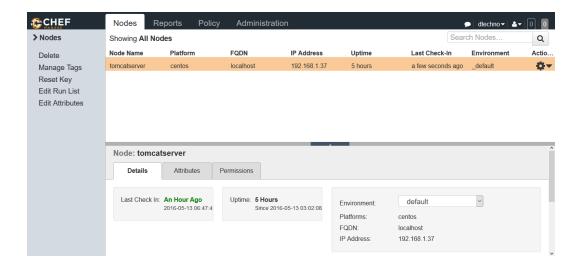
The Chef Development Kit (ChefDK) brings the best-of-breed development tools built by the awesome Chef community to your workstation with just a few clicks. Download your package and start coding Chef in seconds.

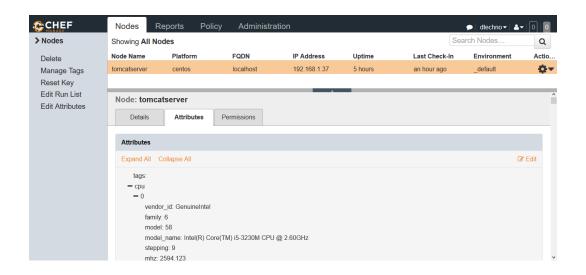


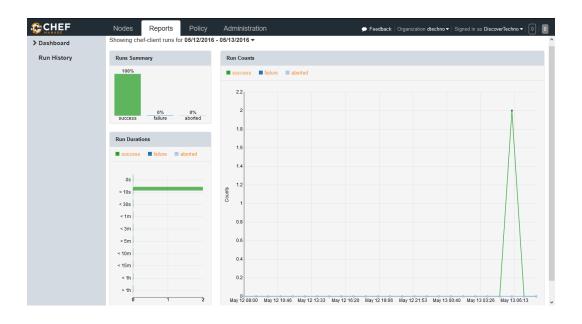




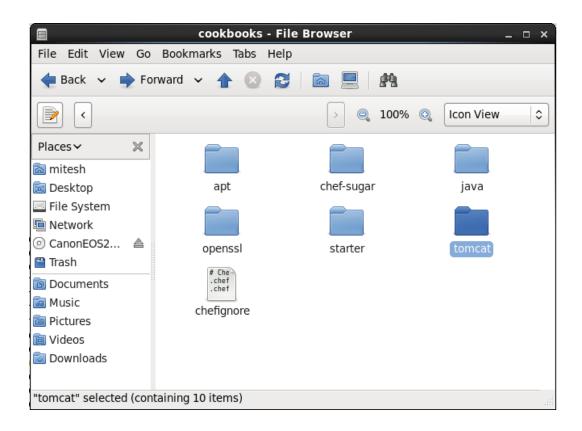


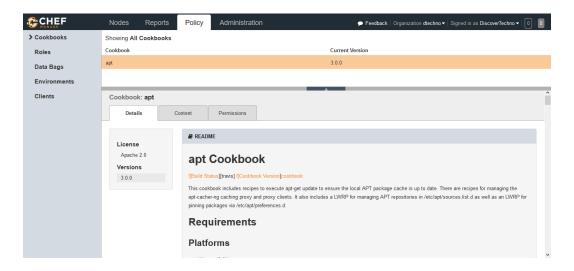


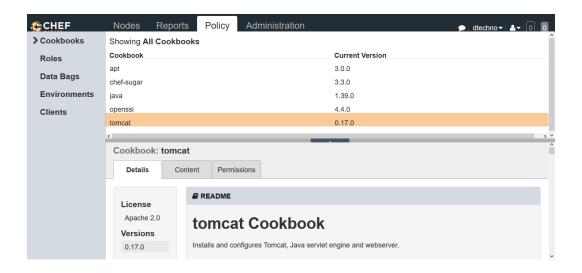


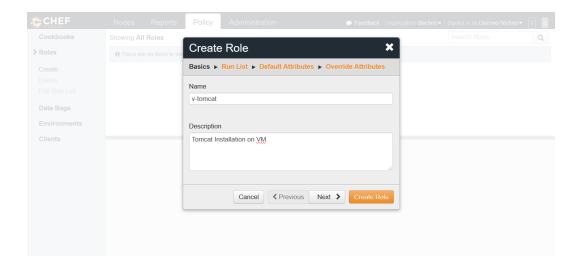


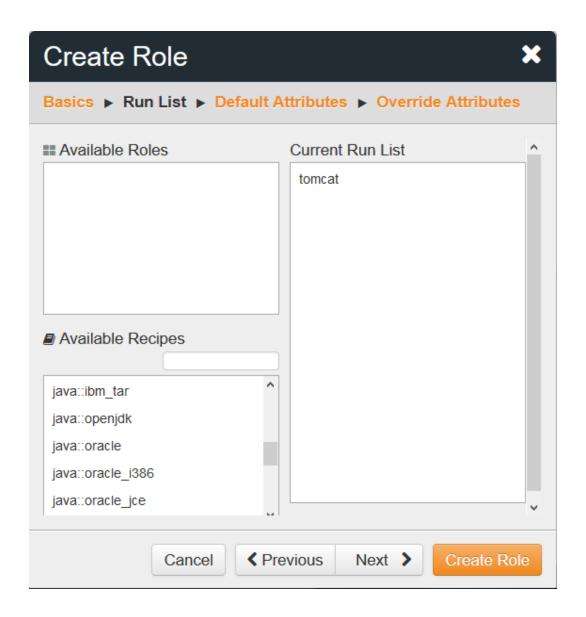


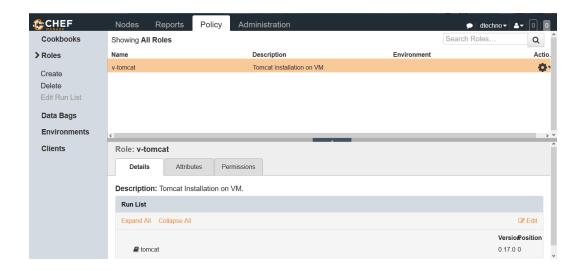


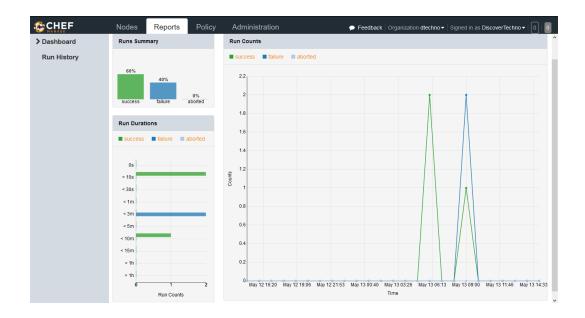




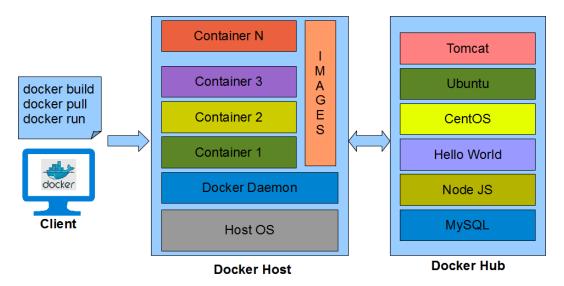


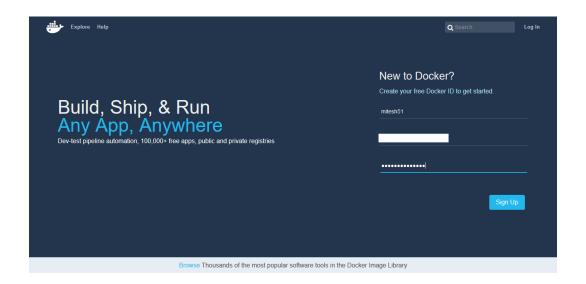


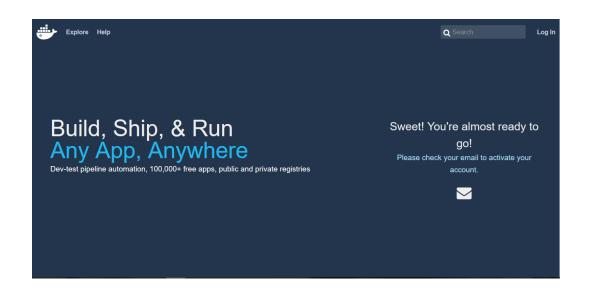


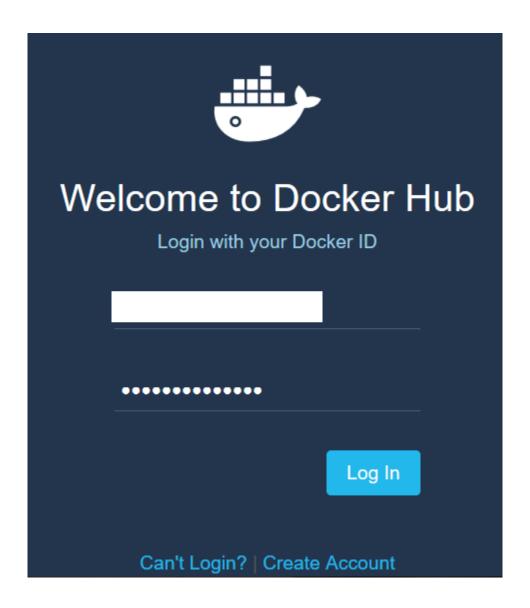


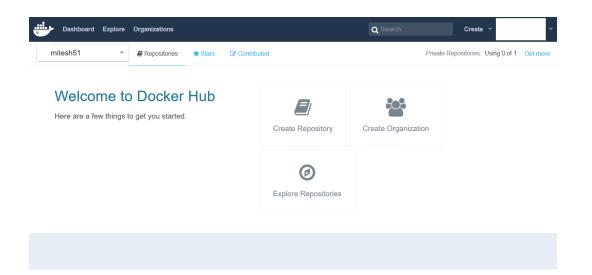
# **Chapter 5: Installing and Configuring Docker**

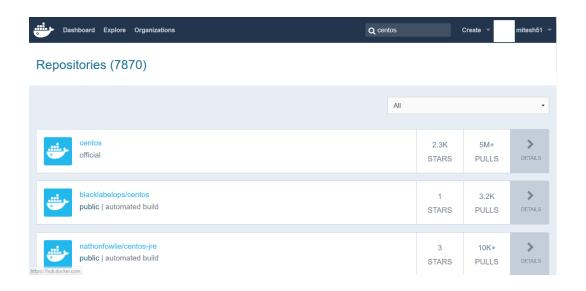


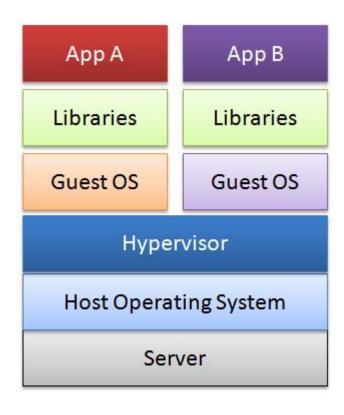


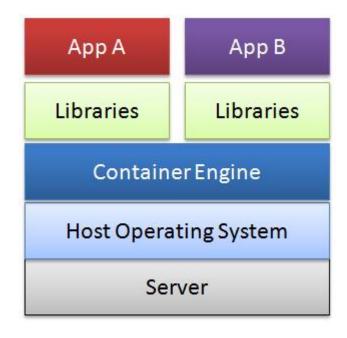














[root@localhost Desktop]# docker images REPOSITORY IMAGE ID CREATED VIRTUAL SIZE TAG 2a332da70fd1 centos latest 2 weeks ago 196.7 MB ubuntu latest 686477c12982 6 weeks ago 120.7 MB 967 B hello-world latest f1d956dc5945 7 weeks ago [root@localhost Desktop]# docker run -it tomcat bash Unable to find image 'tomcat:latest' locally latest: Pulling from tomcat 7d7852532044: Downloading [============= ] 20.97 MB/51.35 MB 435cb21051b6: Download complete 4c76b3c13563: Download complete 35e170305690: Download complete 14fa7ed0654b: Download complete 02dec3806bda: Download complete b50599b96e33: Download complete ec7e4967fab4: Download complete 499b5c54f1ed: Download complete cc5b39d4a8b7: Downloading [=======> ] 18.37 MB/77.64 MB 290876b830ae: Download complete 30167fbc73d4: Download complete 3a80d45737ff: Download complete d4c89486429f: Download complete 4513ebd4451d: Download complete 4d3f030833b5: Download complete 9b29824628e2: Download complete 91fa6d6b4e7a: Download complete aa3cd4ef3986: Download complete 1e96877e40eb: Download complete fa9f8e22fb74: Download complete

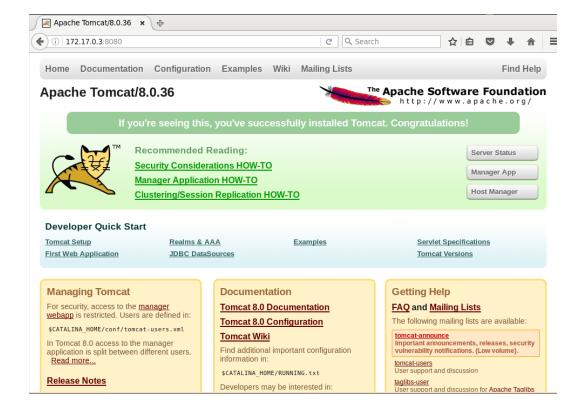
[root@localhost Desktop]# docker ps

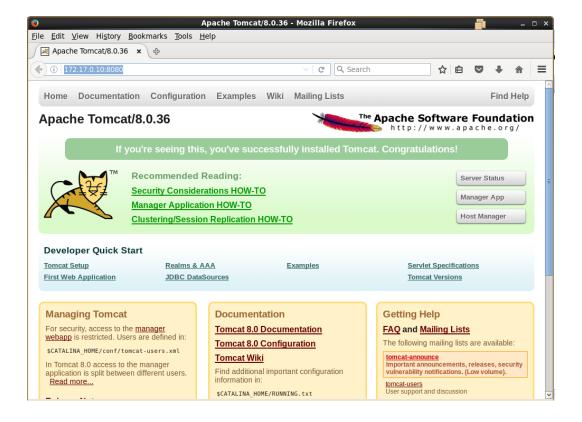
CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES

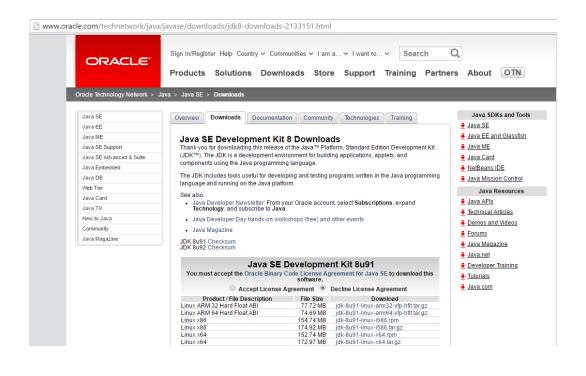
c3fbd72a1b35 tomcat:8.0 "catalina.sh run" 29 minutes ago

Up 29 minutes 8080/tcp sad pasteur

```
[root@localhost Desktop]# docker inspect c3fbd72a1b35
    "Id": "c3fbd72a1b35c6725606df726b5651cbd774b02d55bad6352c0e5205894b8b56",
    "Created": "2016-06-19T10:54:01.330825881Z",
    "Path": "catalina.sh",
"Args": [
         "run"
    ],
"State": {
         "Running": true, 
"Paused": false,
         "Restarting": false, 
"OOMKilled": false,
         "Dead": false,
         "Pid": 6293,
         "ExitCode": 0,
         "Error": "",
"StartedAt": "2016-06-19T10:54:02.250775469Z",
         "FinishedAt": "0001-01-01T00:00:00Z"
    },
"Image": "5d4577339b146f4e71ddb267812213bdc1a612eeb48a5f3c95f105b7894a4a73",
    "NetworkSettings": {
         "Bridge": "",
"EndpointID": "a88792ad6a30316dbf8ad50c565d2c2c5951a040f4909f97418405142c7224e8",
         "Gateway": "172.17.42.1",
         "GlobalIPv6Address": "",
         "GlobalIPv6PrefixLen": 0,
         "HairpinMode": false,
"IPAddress": "172.17.0.3",
```





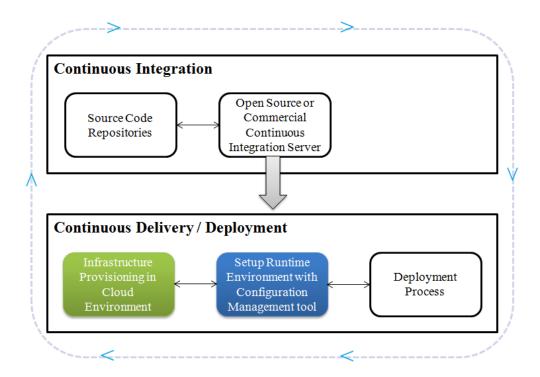


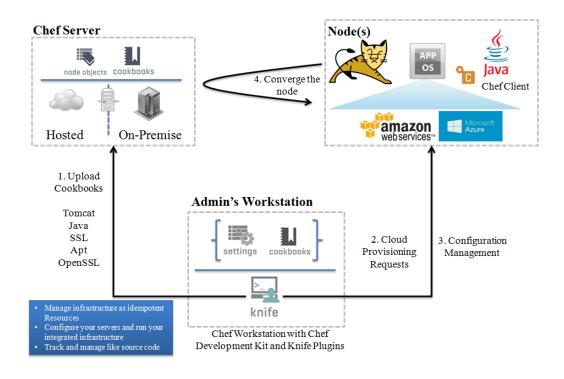
#### ← → C apache-mirror.rbc.ru/pub/apache/tomcat/

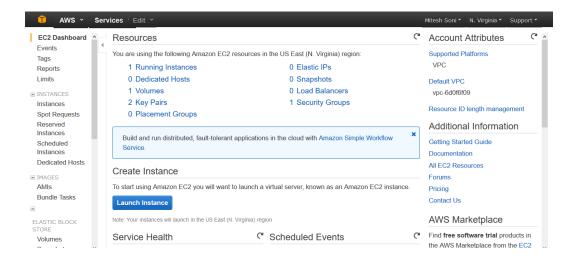
## Index of /pub/apache/tomcat

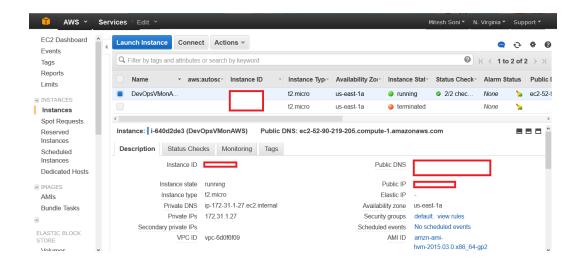
<u>Name</u>	<u>Last modified</u>	<u>Size</u>	<u>Description</u>
Parent Directory		-	
<pre>maven-plugin/</pre>	2015-02-17 21:55	-	
taglibs/	2015-05-14 16:48	-	
tomcat-6/	2016-04-12 10:39	-	
tomcat-7/	2016-06-21 11:32	-	
tomcat-8/	2016-06-13 18:53	-	
tomcat-9/	2016-06-13 18:31	-	
tomcat-connectors/	2015-02-17 21:55	-	

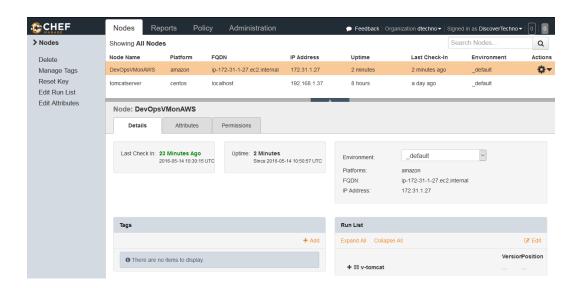
# **Chapter 6: Cloud Provisioning and Configuration Management with Chef**

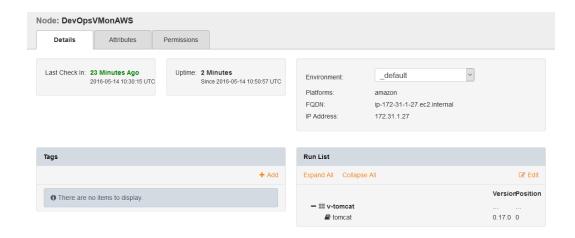


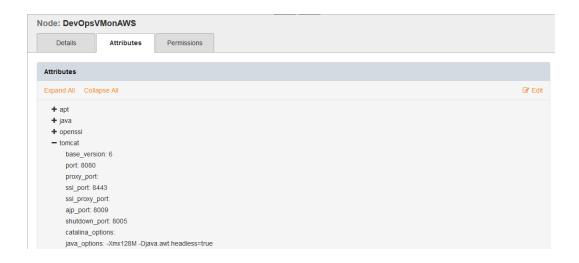


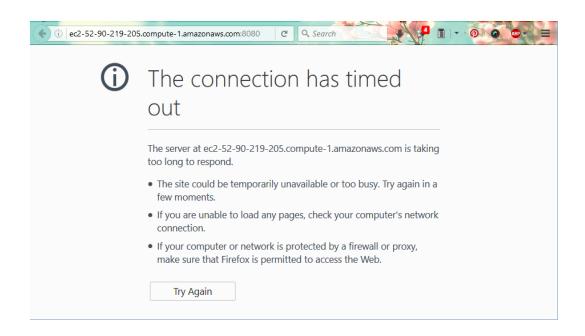


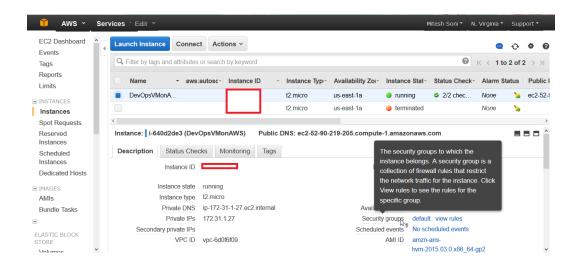


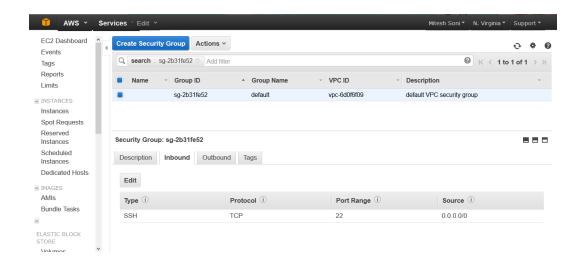


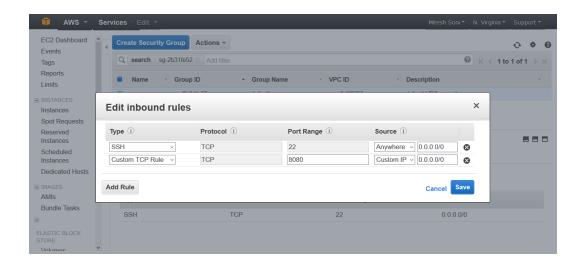












# Microsoft Azure

### Your subscription file is being generated, and the download will begin shortly.

This file contains secure credentials and additional information about subscriptions that you can use in your development environment. Click here if the download does not start automatically.

Sign up for Windows Azure preview features

Sign up for Windows Azure preview features that you are interested in.

Save a local copy of the publishSettings file

Warning This file contains an encoded management certificate. It serves as your credentials to administer your subscriptions and related services. Store this file in a secure location or delete it after you use it.

Import the publishSettings file

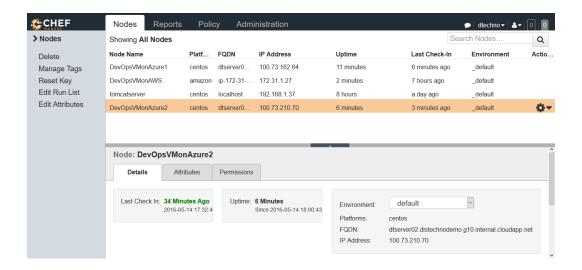
Run the following command

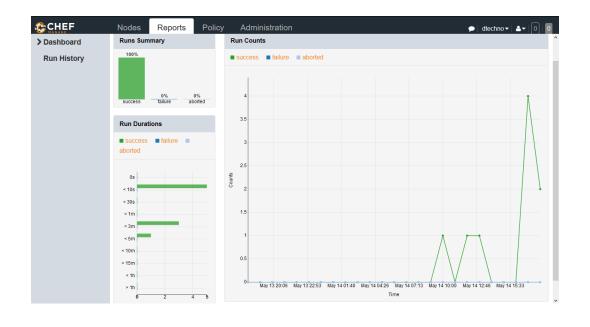
azure account import

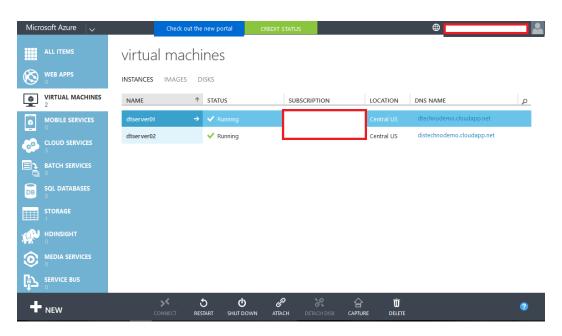
/ Create a new Web app

Run the following Azure PowerShell command to create a new web app that is initialized with a Git repository

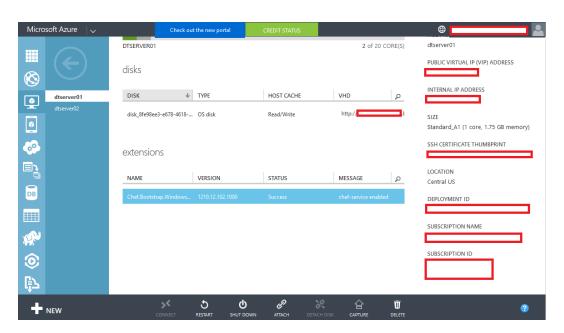
azure site create --git

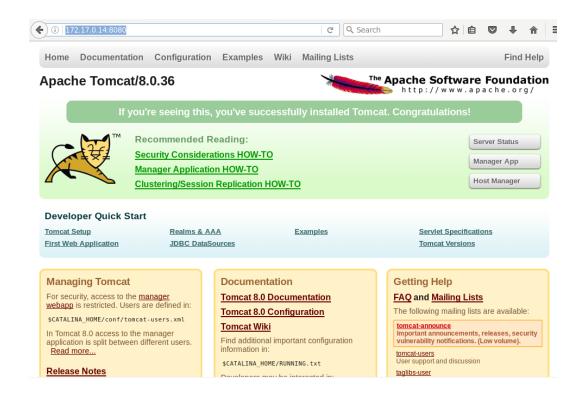


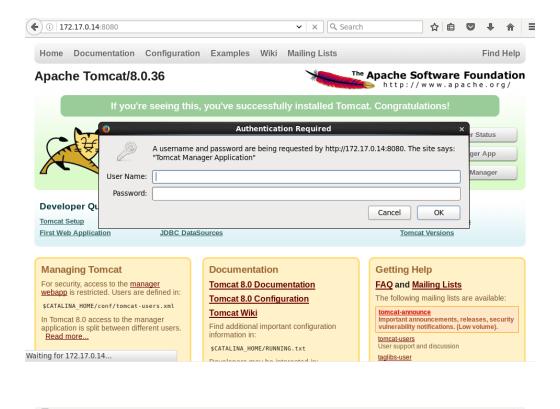
















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#### **Tomcat Web Application Manager**

Message: 0	ıK							
Manager								
<u>List Applications</u>		HTML Manager Help		1	Manager Help	<u>Server Status</u>		
Applications								
Path	Version	Display Name	Running	Sessions	Commands			
L	None specified	Welcome to Tomcat	true	<u>0</u>	Start Stop Reload Undeploy  Expire sessions with idle ≥ 30 minutes			
<u>/docs</u>	None specified	Tomcat Documentation	true	<u>0</u>	Start Stop Reloa  Expire sessions wit	th idle ≥ 30 minutes		
/examples	None specified	Servlet and JSP Examples	true	<u>0</u>	Start Stop Reloa  Expire sessions wit	d Undeploy thidle ≥ 30 minutes		

## **Chapter 7: Deploying Application in AWS, Azure, and Docker**



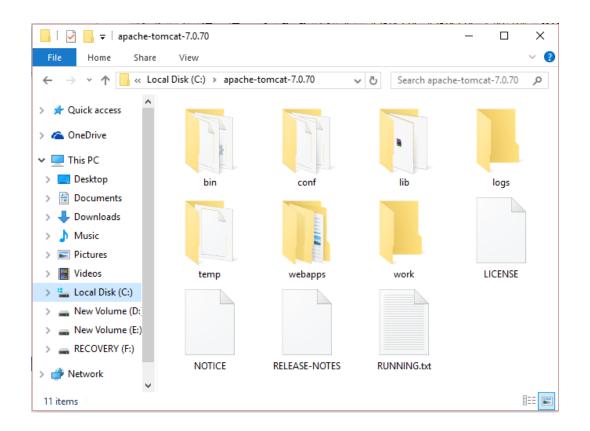


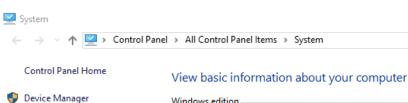
#### 7.0.70

Please see the **README** file for packaging information. It explains what every distribution contains.

#### **Binary Distributions**

- Core:
  - o <u>zip (pgp, md5, sha1)</u>
  - <u>tar.gz</u> (<u>pgp</u>, <u>md5</u>, <u>sha1</u>)
  - o 32-bit Windows zip (pgp, md5, sha1)
  - o 64-bit Windows zip (pgp, md5, sha1)
  - 32-bit/64-bit Windows Service Installer (pgp, md5, sha1)
- Full documentation:
  - <u>tar.gz</u> (pgp, <u>md5</u>, <u>sha1</u>)
- Deployer:
  - <u>zip</u> (pgp, <u>md5</u>, <u>sha1</u>)
  - <u>tar.gz</u> (pgp, <u>md5</u>, <u>sha1</u>)
- Extras:
  - JMX Remote jar (pgp, md5, sha1)
  - Web services jar (pgp, md5, sha1)
  - JULI adapters jar (pgp, md5, sha1)
  - JULI log4j jar (pgp, md5, sha1)
- Embedded:
  - o tar.gz (pgp, md5, sha1)
  - o <u>zip</u> (pgp, <u>md5</u>, <u>sha1</u>)





Windows edition

Remote settings

System protection

Advanced system settings

Windows 10 Home Single Language

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System

Intel(R) Core(TM) i5-3230M CPU @ 2.60GHz 2.60 GHz Processor:

Installed memory (RAM): 8.00 GB (7.89 GB usable)

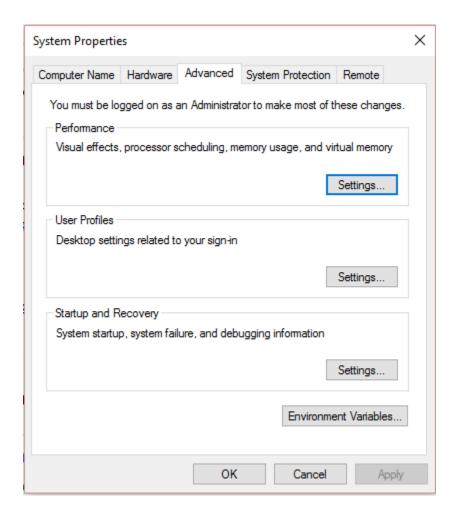
System type: 64-bit Operating System, x64-based processor Pen and Touch: No Pen or Touch Input is available for this Display

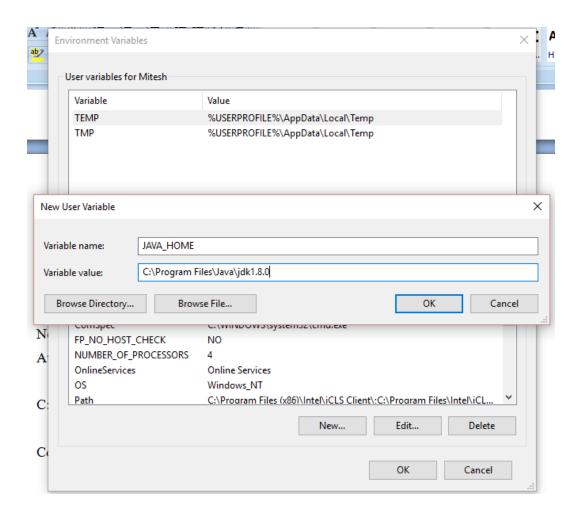
Computer name, domain, and workgroup settings

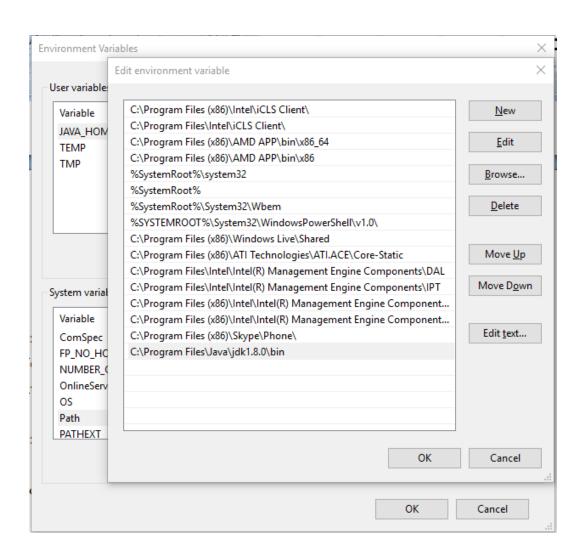
Computer name: my-pc Full computer name: my-pc

Computer description:

Workgroup: WORKGROUP







Home Documentation Configuration Examples Wiki Mailing Lists Find Help

#### Apache Tomcat/7.0.70



#### If you're seeing this, you've successfully installed Tomcat. Congratulations!



Recommended Reading:

Security Considerations HOW-TO Manager Application HOW-TO Clustering/Session Replication HOW-TO

Server Status Manager App Host Manager

#### **Developer Quick Start**

Tomcat Setup First Web Application Realms & AAA JDBC DataSources **Examples** 

Servlet Specifications Tomcat Versions

#### **Managing Tomcat**

For security, access to the <u>manager webapp</u> is restricted. Users are defined in:

\$CATALINA\_HOME/conf/tomcat-users.xml

In Tomcat 7.0 access to the manager application is split between different users. Read more...

Release Notes

Changelog

Migration Guide

#### Documentation

Tomcat 7.0 Documentation

Tomcat 7.0 Configuration

Tomcat Wiki

Find additional important configuration information in:

\$CATALINA\_HOME/RUNNING.txt

Developers may be interested in:

Tomcat 7.0 Bug Database Tomcat 7.0 JavaDocs

#### **Getting Help**

#### FAQ and Mailing Lists

The following mailing lists are available:

tomcat-announce Important announcements, releases, security vulnerability notifications. (Low volume).

tomcat-users User support and discussion

taglibs-user
User support and discussion for Apache Taglibs

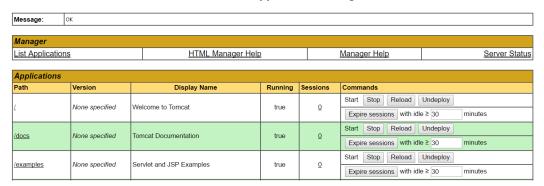
tomcat-dev
Development mailing list, including commit

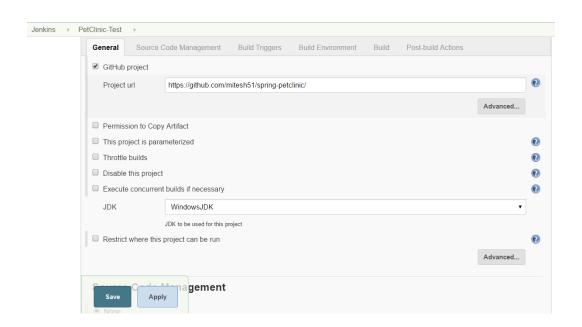
```
<?xml version='1.0' encoding='utf-8'?>
⊞<!--
--! --
  NOTE: The sample user and role entries below are intended for use with the
  examples web application. They are wrapped in a comment and thus are ignored
  when reading this file. If you wish to configure these users for use with the
  examples web application, do not forget to remove the <!\dots> that surrounds
  them. You will also need to set the passwords to something appropriate.
  <role rolename="manager-script"/>
  <user username="admin" password="admin@123" roles="manager-script"/>
</tomcat-users>
```

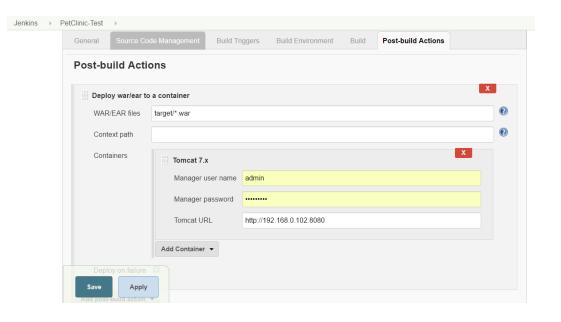




#### **Tomcat Web Application Manager**





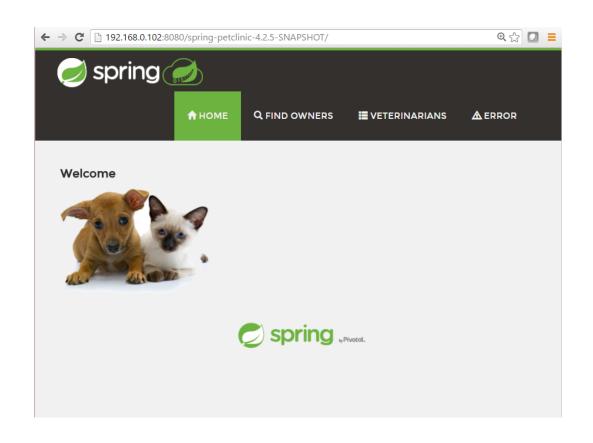


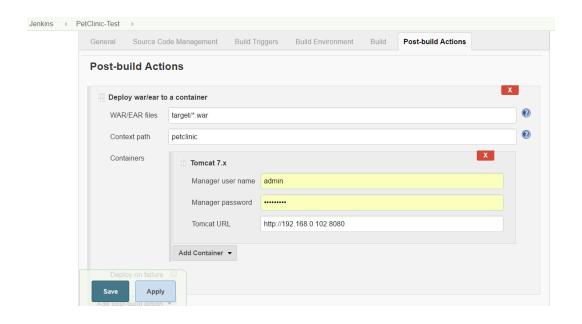
#### Results :

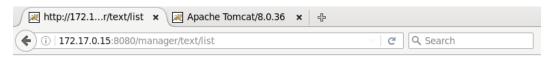
Finished: SUCCESS

```
Tests run: 59, Failures: 0, Errors: 0, Skipped: 0
[INFO]
[INFO] --- maven-war-plugin:2.3:war (default-war) @ spring-petclinic ---
[INFO] Packaging webapp
[INFO] Assembling webapp [spring-petclinic] in [d:\jenkins\workspace\PetClinic-Test\target\spring-
petclinic-4.2.5-SNAPSHOT]
[INFO] Processing war project
[INFO] Copying webapp resources [d:\jenkins\workspace\PetClinic-Test\src\main\webapp]
[INFO] Webapp assembled in [1669 msecs]
[INFO] Building war: d:\jenkins\workspace\PetClinic-Test\target\spring-petclinic-4.2.5-SNAPSHOT.war
[INFO] ------
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 28.772 s
[INFO] Finished at: 2016-07-06T22:59:37+05:30
[INFO] Final Memory: 29M/261M
[INFO] -----
Deploying d:\jenkins\workspace\PetClinic-Test\target\spring-petclinic-4.2.5-SNAPSHOT.war to container
Tomcat 7.x Remote
 [d:\jenkins\workspace\PetClinic-Test\target\spring-petclinic-4.2.5-SNAPSHOT.war] is not deployed.
Doing a fresh deployment.
```

Deploying [d:\jenkins\workspace\PetClinic-Test\target\spring-petclinic-4.2.5-SNAPSHOT.war]







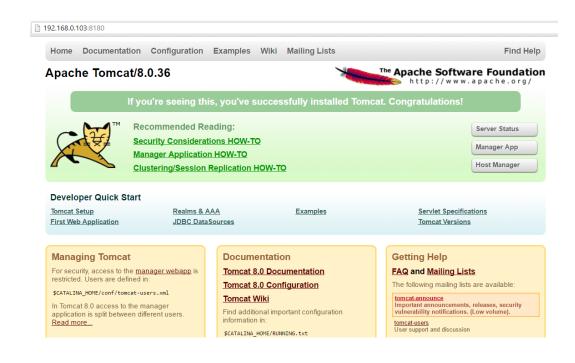
OK - Listed applications for virtual host localhost

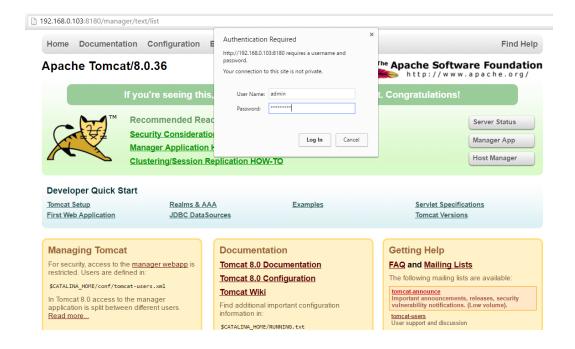
/manager:running:0:manager

/:running:0:R00T
/docs:running:0:docs

/examples:running:0:examples

/host-manager:running:0:host-manager







OK - Listed applications for virtual host localhost

/manager:running:0:manager

/:running:0:ROOT

/docs:running:0:docs

/examples:running:0:examples

/host-manager:running:0:host-manager

Create an Uplo
Application as an
(Petclinic)

Upload WAR file as an application version

Launch an Environment

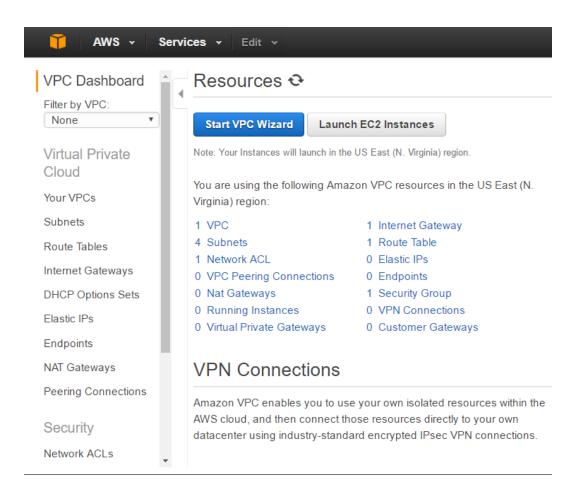
Deploy new version of an application in AWS Elastic Beanstalk

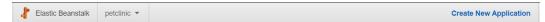
# Programming Languages

Java, PHP,
 Python, Ruby,
 Go

### **Platforms**

 Go, Java SE, Java with Tomcat, .NET on Windows Server with IIS, Node.js, PHP, Python, Ruby





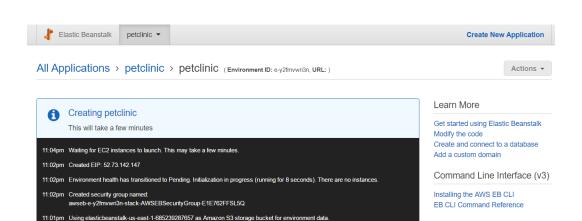


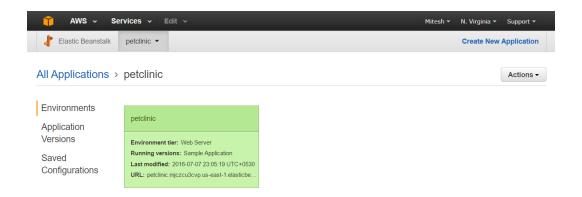
#### Create a web app

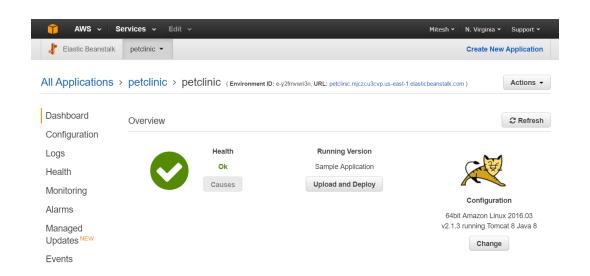
11:01pm createEnvironment is starting.

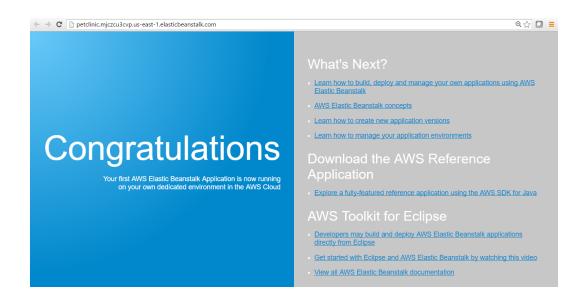
Choose a name and a platform for your app. You can start with a sample app or upload your own code. Then, you can configure more options before you deploy your app. By creating an app, you allow AWS Elastic Beanstalk to administer AWS resources and necessary permissions on your behalf. Learn more.

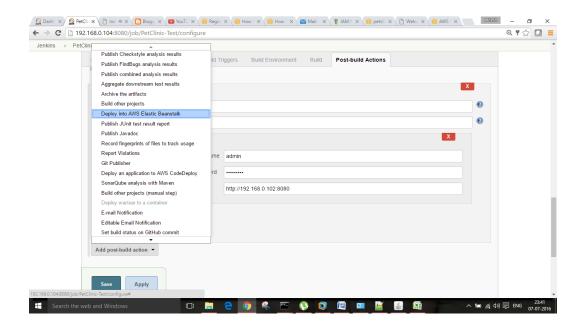


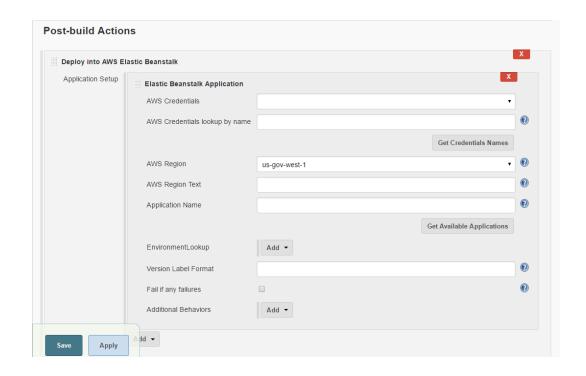




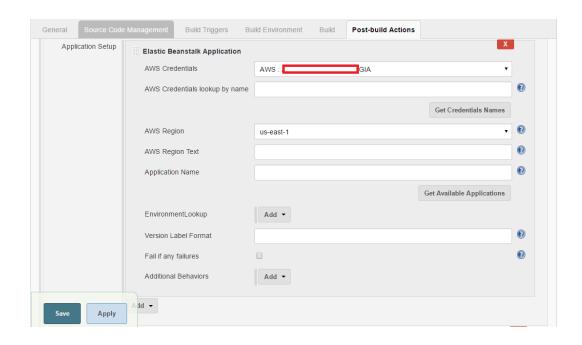


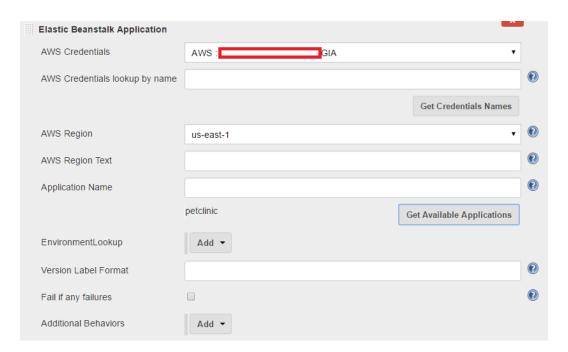


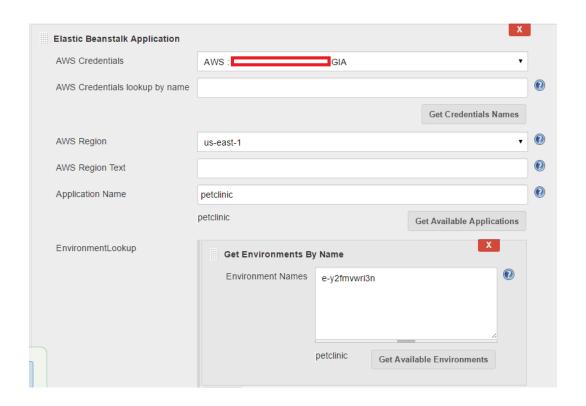


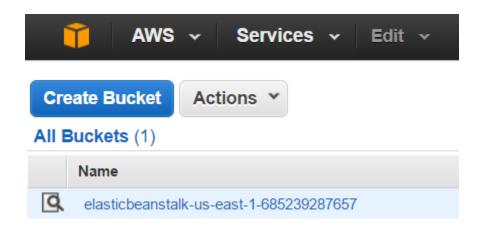


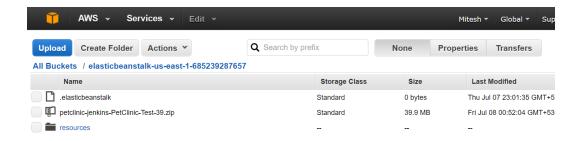


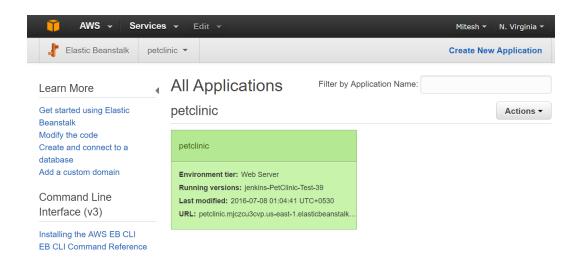


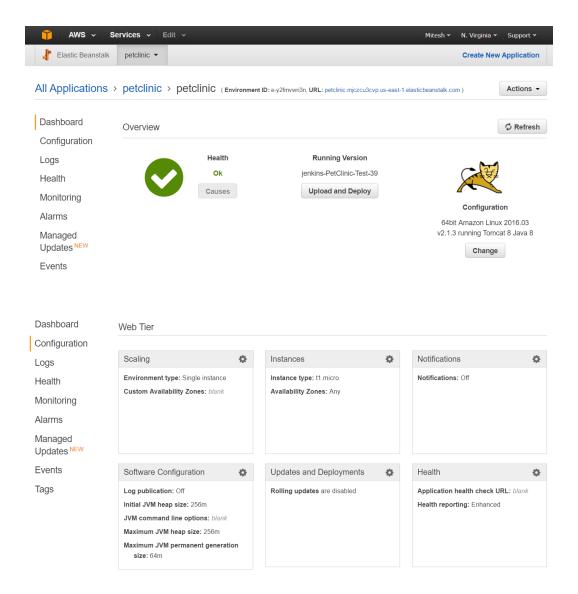




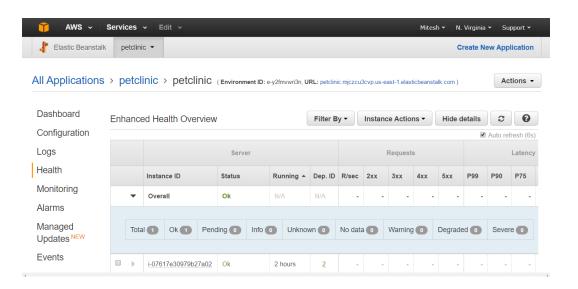


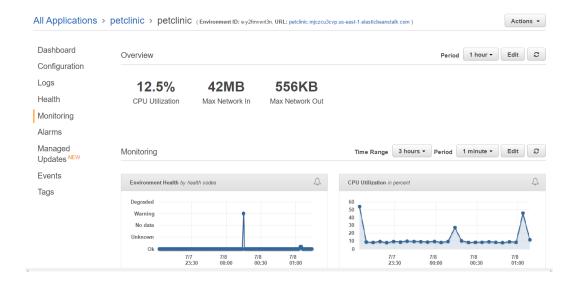


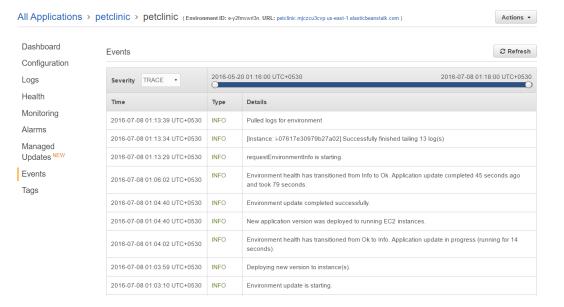


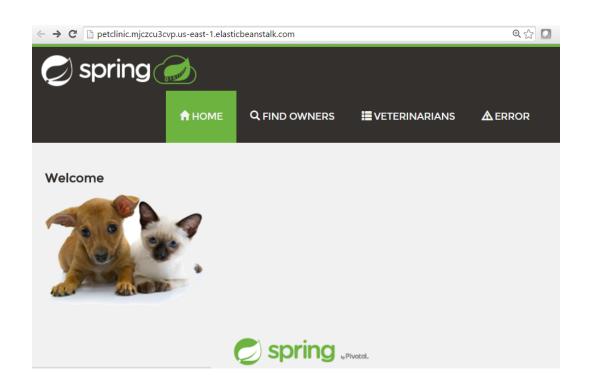


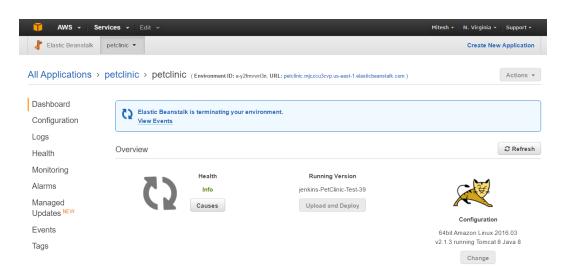












Upda	ates Available	Installed	Advanced		
install (				Name	Version
	FTP publisher plu This plugin ca	-	upload projec	ct artifacts and whole directories to an ftp server.	1.2
•	Publish Over FTP Publish files				1.12
	Publish Over SSF Publish files		te commands	over SSH (SCP using SFTP)	1.14
	SSH2 Easy Plugin This plugin al downlaod etc	lows you to s	ssh2 remote se	erver to execute linux commands , shell , sftp upload,	1.4

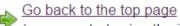
# **Installing Plugins/Upgrades**

### Preparation

- · Checking internet connectivity
- · Checking update center connectivity
- Success

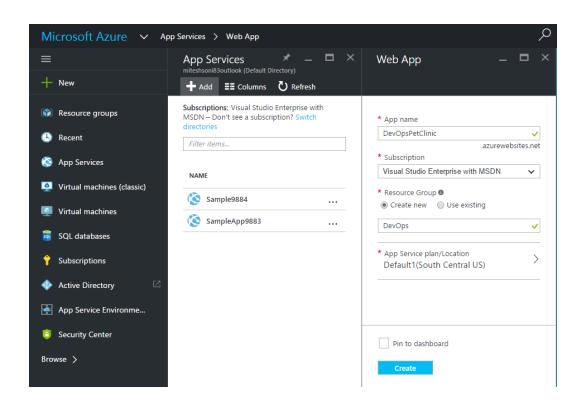
Publish Over FTP

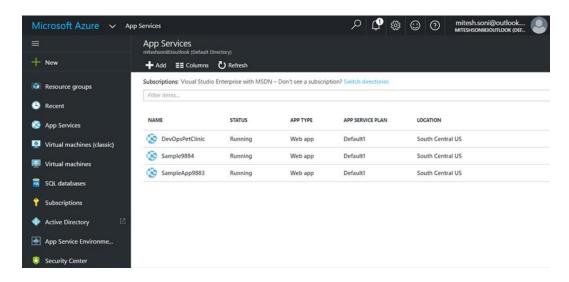


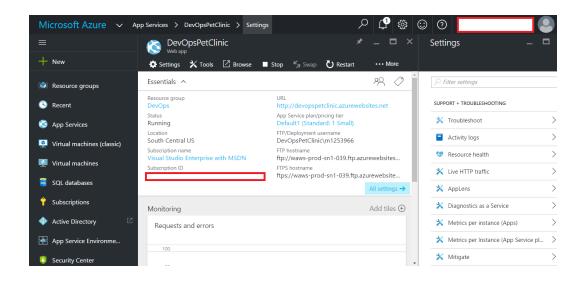


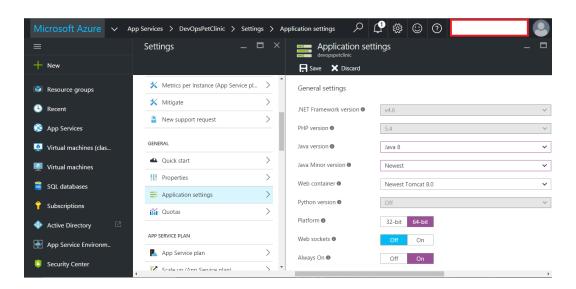
(you can start using the installed plugins right away)

Restart Jenkins when installation is complete and no jobs are running

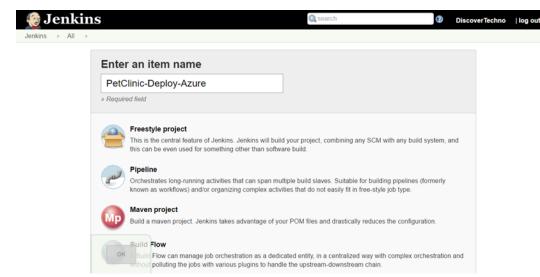


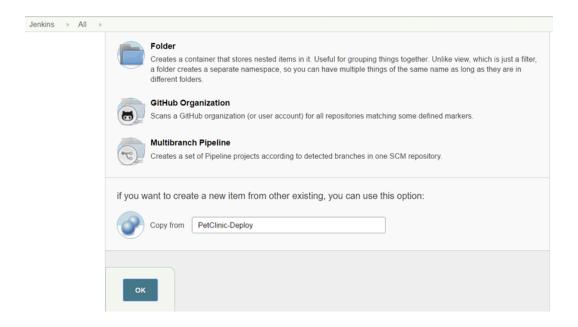


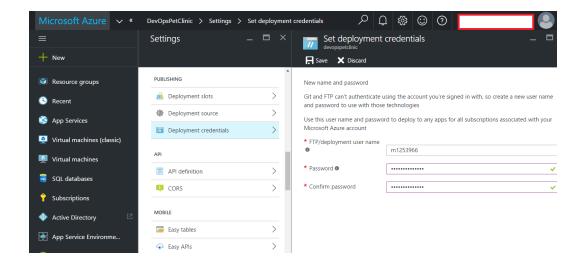












#### Publish over FTP FTP Servers FTP Server Name AzureWebApps Hostname waws-prod-sn1-039.ftp.azurewebsites.v Username DevOpsPetClinic\m12539666 Password .....

Remote Directory

\site\wwwroot\webapps

Success

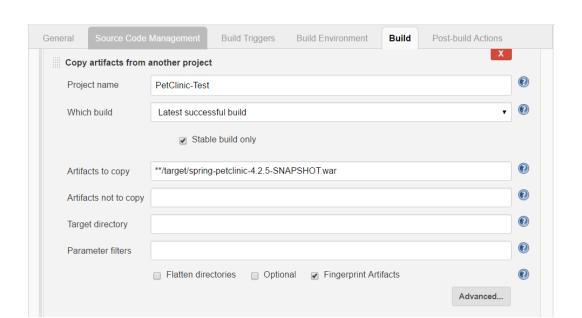
?

?

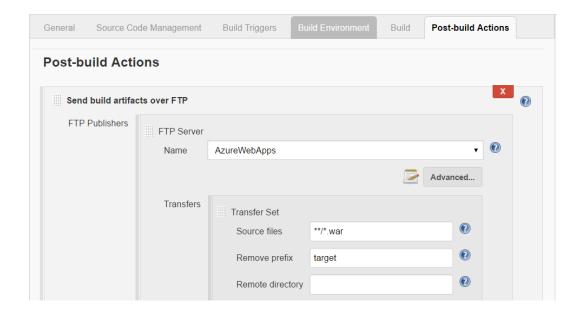
Advanced...

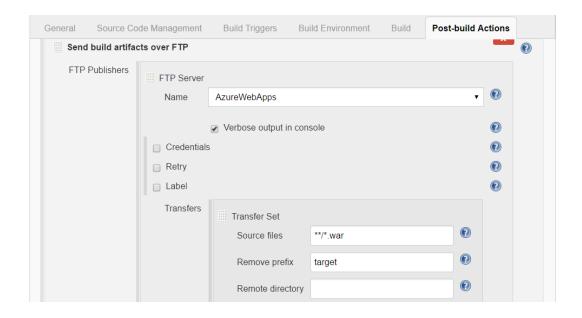
Delete

**Test Configuration** 

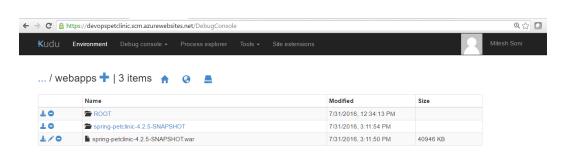


Add

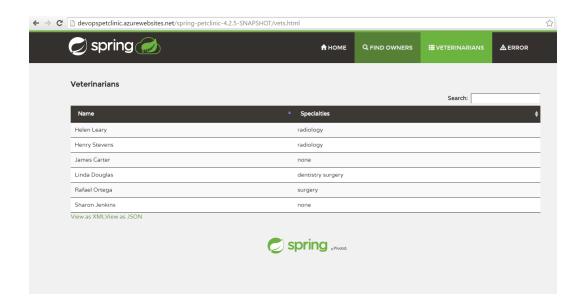




Started by user <u>DiscoverTechno</u> Building on master in workspace /home/mitesh/.jenkins/workspace/PetClinic-Deploy-Azure Copied 1 artifact from "PetClinic-Test" build number 55 FTP: Connecting from host [devops1] FTP: Connecting with configuration [AzureWebApps] ... 220 Microsoft FTP Service FTP: Logging in, command printing disabled FTP: Logged in, command printing enabled CWD \site\wwwroot\webapps 250 CWD command successful. TYPE I 200 Type set to I. CWD \site\wwwroot\webapps 250 CWD command successful. PASV 227 Entering Passive Mode (104,210,159,39,39,189). STOR spring-petclinic-4.2.5-SNAPSHOT.war 125 Data connection already open; Transfer starting. FTP: Disconnecting configuration [AzureWebApps] ...







# End to End Automation with Orchestration (Build Pipeline / Delivery Pipeline)



# **Chapter 8: Monitoring Infrastructure and Applications**

Nagios supports monitoring of host resources such as processor and disk usage, network services, Supports Auto Discovery to automatically discovers hosts or network devices Zenoss is connected to

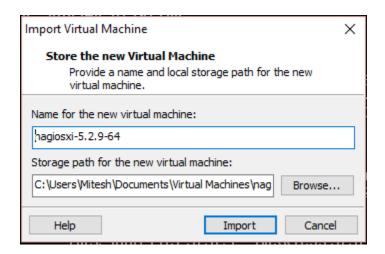
Support IP SLAs Reports

Support User-defined groups to organize hosts or devices Zenoss monitors Treding information related to data over duration and also to predict network statistics in Nagios XI

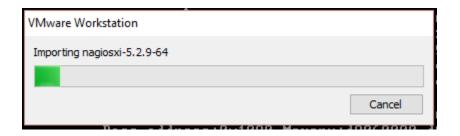
Support SNMP statistics, reports on Syslogs

Supports secure remote monitoring through SSH or SSL encrypted tunnels

Simple and Easy to use web interface for analysing current network status, notifications, and so on.











### Nagios' XI

#### Welcome

Click the link below to get started using Nagios XI.

Access Nagios XI

Check for tutorials and updates by visiting the Nagios Library at library.nagios.com.

Problems, comments, etc, should be directed to our support forum at **support.nagios.com/forum/**.

Nagios XI

About | Legal | Copyright © 2008-2016 Nagios Enterprises, LLC

## Nagios XI

### Nagios XI Installer

Welcome to the Nagios XI installation. Just answer a few simple questions and you'll be ready to go.

General Pro	gram Settings	<u> </u>
Program URL:	:	http://192.168.1.38/nagiosxi/
Administrato	r Name:	Nagios Administrator
Administrato	r Email Address:	root@localhost
Administrator Username:		nagiosadmin
Administrator Password:		5kerpt
Timezone S	ettings	
Timezone:	America/New_York	▼
Tootall &		

# Nagios XI

# **Installation Complete**

Congratulations! You have successfully installed Nagios XI.

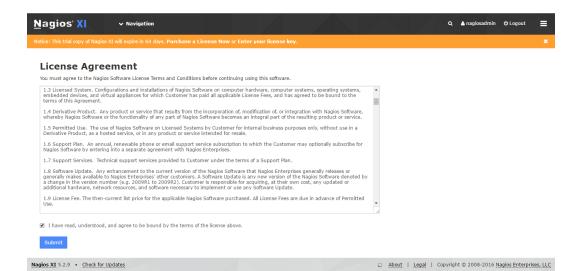
You may now login to Nagios XI using the following credentials:

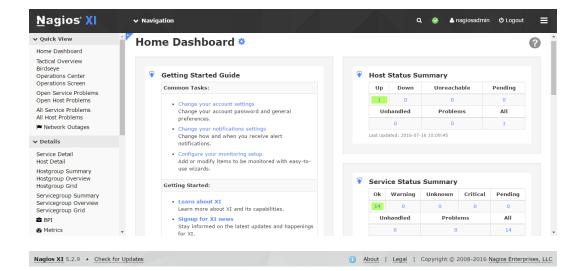
Username: nagiosadmin

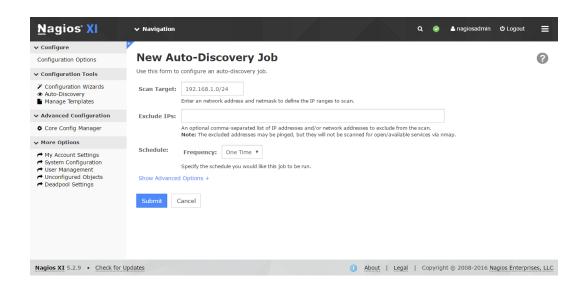
Password: **5kerpt** 

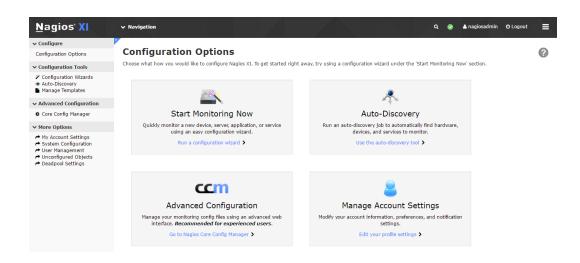
**Login to Nagios XI** 

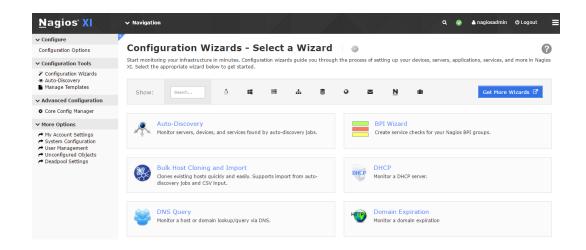
#### Nagios' XI Nagios' Login nagiosadmin \*\*\*\*\* About Nagios XI Nagios XI is an enterprise-class monitoring and alerting solution that provides organizations with extended insight of their IT infrastructure before problems affect critical business processes. For more information on Nagios XI, visit the Nagios XI product page. Nagios Learning Opportunities Select Language: Learn about Nagios training and certification. Want to learn about how other experts are utilizing Nagios? Don't miss your chance to attend the next Nagios World Conference. Contact Us Have a question or technical problem? Contact us today: Nagios XI About | Legal | Copyright © 2008-2016 Nagios Enterprises, LLC

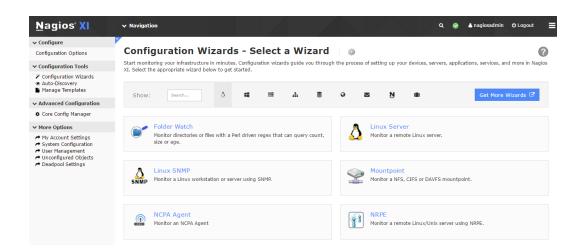


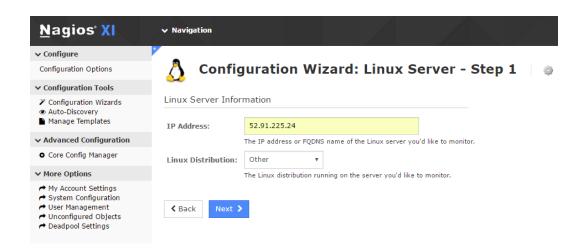














### Configuration Wizard: NRPE - Step 1 📑 🐡



You have been sent here from the Linux Server Wizard because you selected Other as your linux type. The NRPE Wizard is a similar wizard with more customizability.

Don't forget! You will need to install NRPE just like you would in the Linux Server Wizard.

### Server Information IP Address: 52.91.225.24 The IP address or FQDNS name of the server you'd like to monitor. Linux - Other Operating System: The operating system running on the server you'd like to monitor. Next > **≺** Back



### Configuration Wizard: NRPE - Step 2 💮



Server Details	
IP Address:	52.91.225.24
Operating System	n: 💍
Host Name:	ec2 The name you'd like to have associated with this host.
NRPE Agent	
Specify options that	should be used to communicate with the remote NRPE agent.
SSL Encryption:	Enabled (Default) ▼
	Determines whether or not data between the Nagios XI server and NRPE agent is encrypted Note: Legacy NRPE installations may require that SSL support be disabled.
Server Metrics	

Specify which services you'd like to monitor for the server.



### Configuration Wizard: NRPE - Step 3



B. //			:	_	C -	ettin	
IVI	$\mathbf{c}$	$\mathbf{H}$	rim	CI.	76	, , , , ,	1015

Define basic parameters that determine how the host and service(s) should be monitored.

#### Under normal circumstances:

Monitor the host and service(s) every 5 minutes.						
When a potential problem is first detected:						
Re-check the host and service(s) every 1 minutes up to 5 times before generating an alert.						





### Configuration Wizard: NRPE - Step 4



	- 6-		-	
Not	ifica	tion	Settir	าตร

Define basic parameters that determine how notifications should be sent for the host and service(s).

#### When a problem is detected:

0	On't send any notifications					
•	Send a notification immediately					
	Wait	15	minutes before sending a notification			

#### If problems persist:

Send a notification every 60 minutes until the problem is resolved.

#### Send alert notifications to:

Myself (Adjust my settings) Other individual contacts
☐ Default Contact (xi_default_contact)



### Configuration Wizard: NRPE - Step 5



#### Host Groups





### Configuration Wizard: NRPE - Final Step 📗 🐡

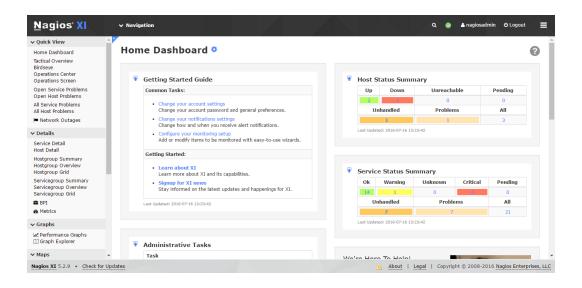
#### Final Settings

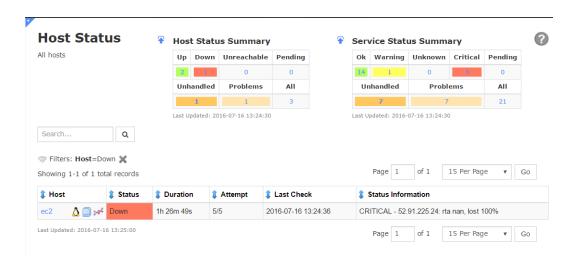
Click Apply to add your new configuration.

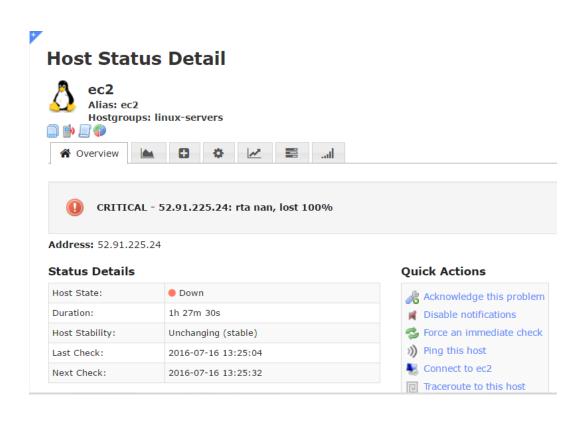


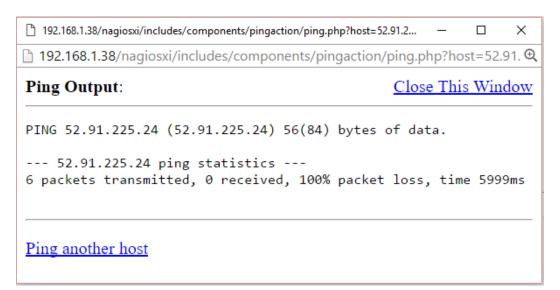


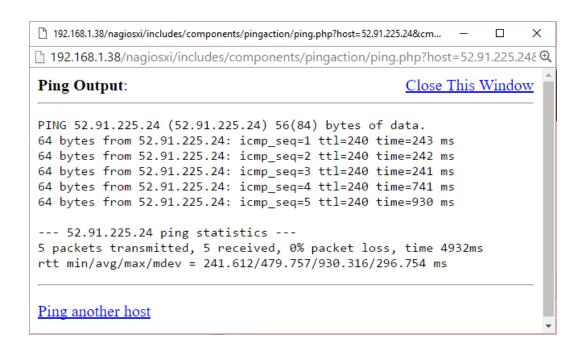


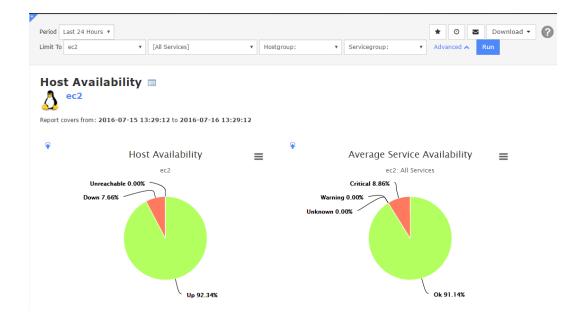










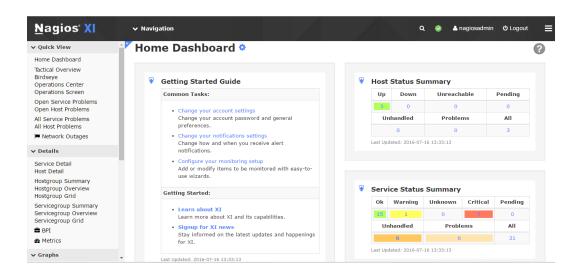


#### Host Data

Host	UP	Down	Unreachable	
ec2	92.344%	7.656%	0%	

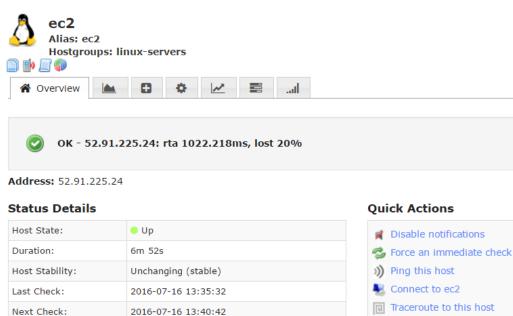
#### Service Data

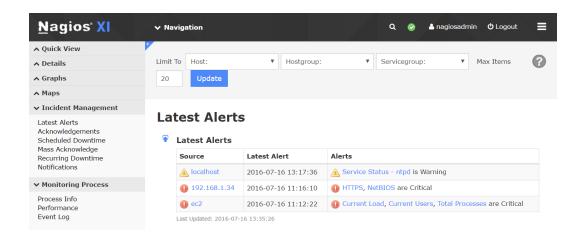
Host	Service	Ok	Warning	Unknown	Critical
ec2	Current Load	90.662%	0%	0%	9.338%
	Current Users	90.676%	0%	0%	9.324%
	Ping	92.419%	0%	0%	7.581%
	Total Processes	90.792%	0%	0%	9.208%
	Average	91.137%	0.000%	0.000%	8.863%

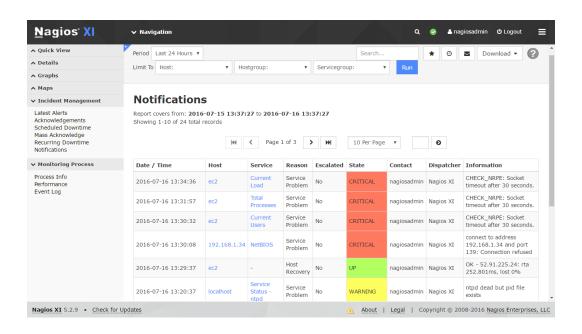


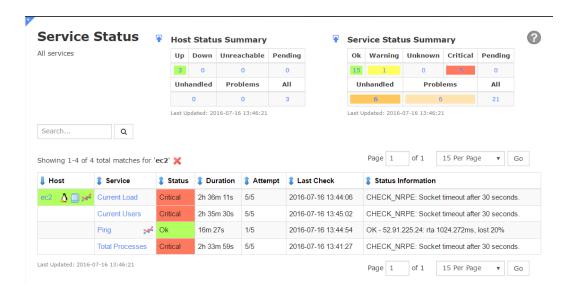


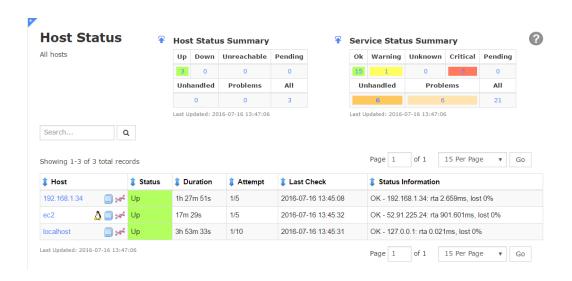
### **Host Status Detail**

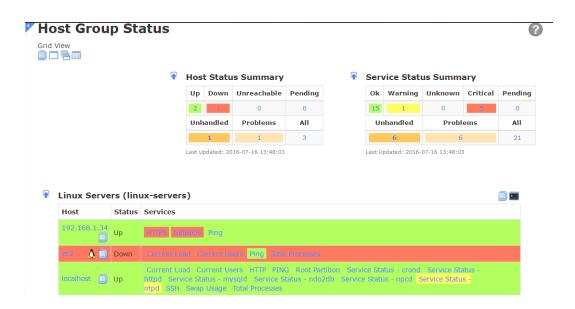


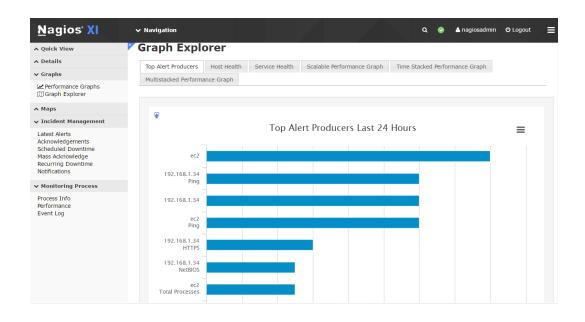




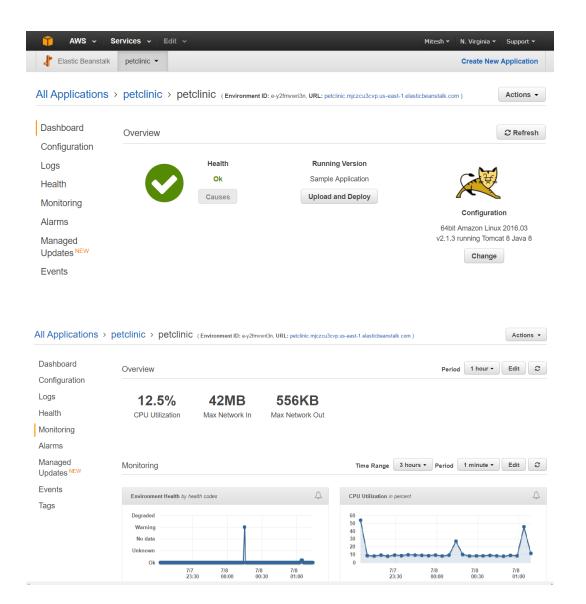


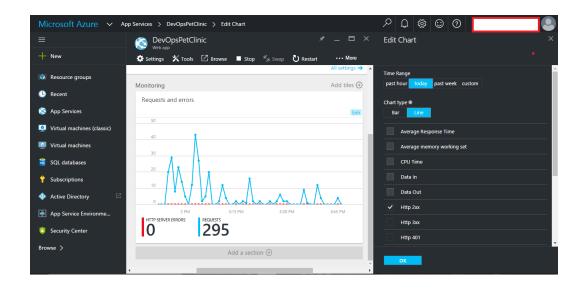


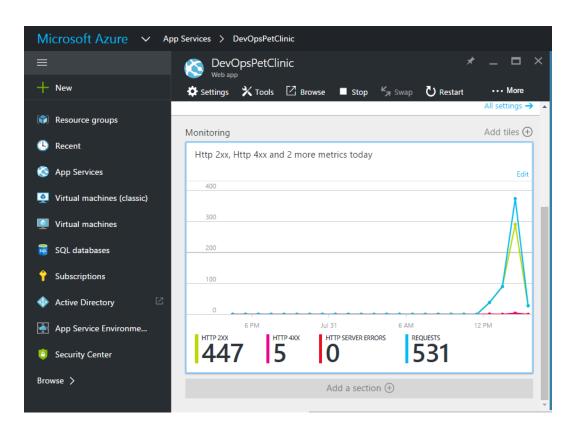


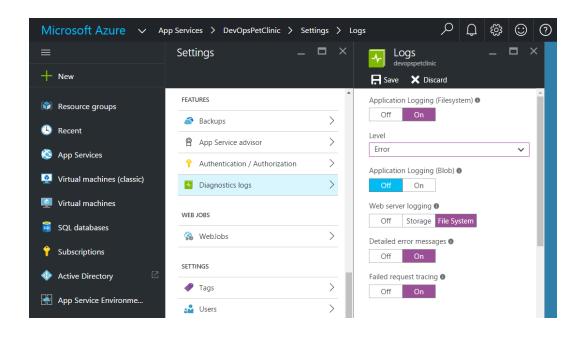


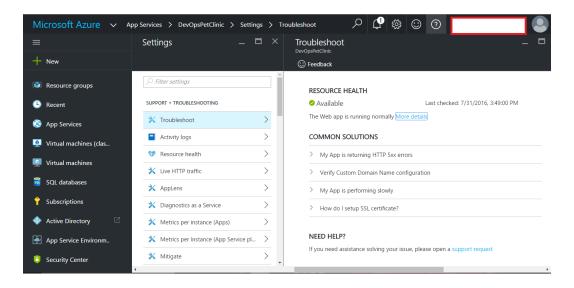


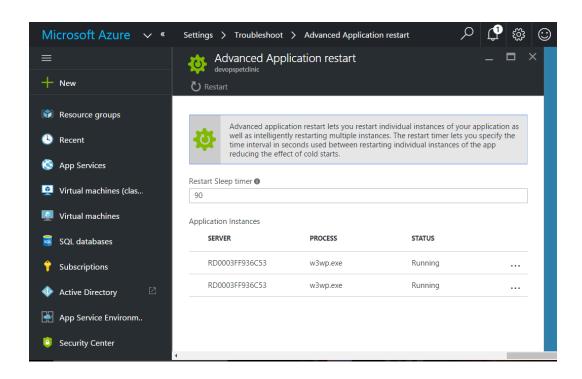


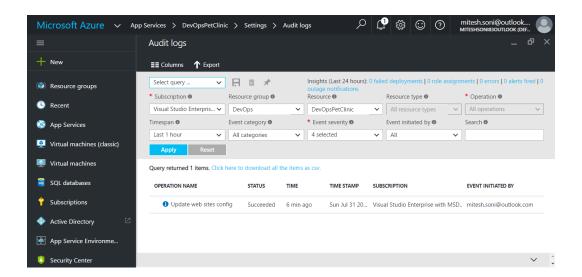


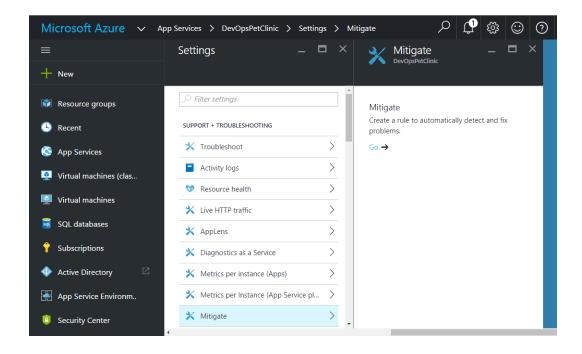


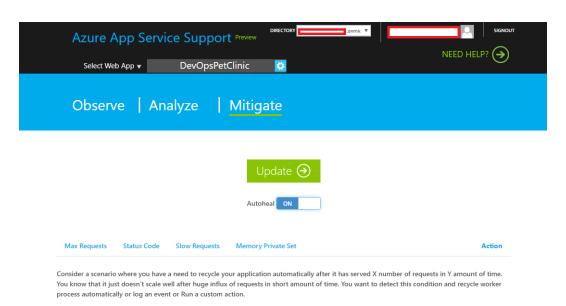






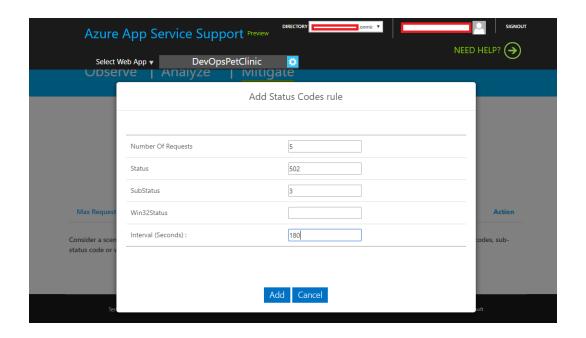


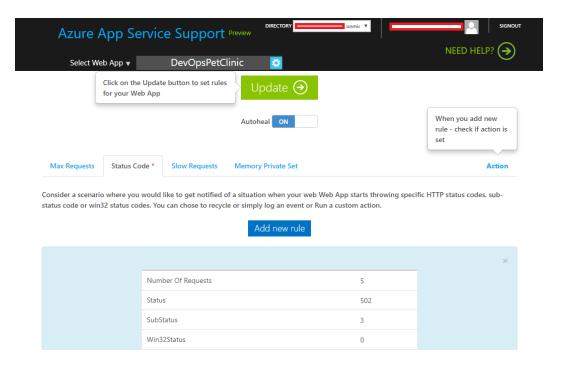


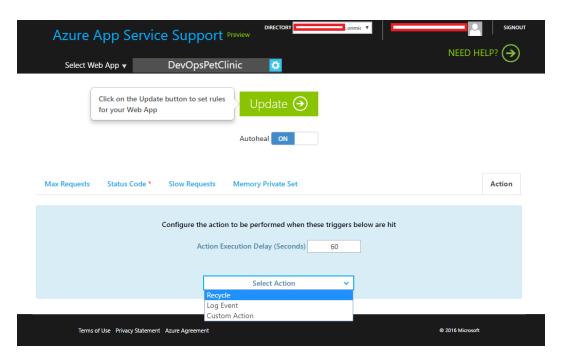


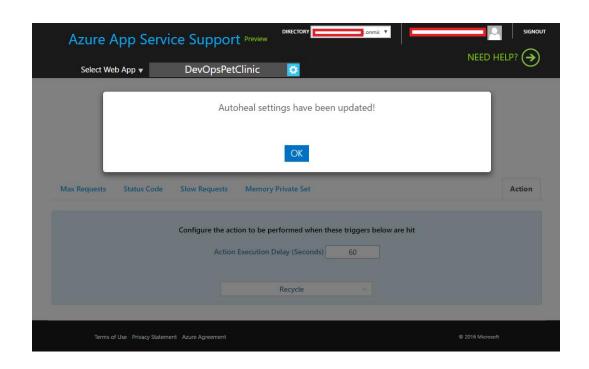
Add new rule

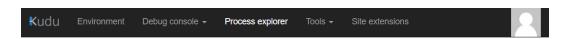
Azure	App Service Support Preview	NEED HELP?
Select V	Web App ▼ DevOpsPetClinic 🔯	NEED FIELD:
	Add Max Requests rule	
	Number Of Requests :	
Max Request  Consider a scen You know that i	Add Cancel	Action  ount of time.  cycle worker
process automa.	Add new rule	
Term	s of Use Privacy Statement Azure Agreement	© 2016 Microsoft











### ... / LogFiles + | 10 items 🛕 🕓 💄

	Name	Modified	Size
ŦO	<b>☎</b> DetailedErrors	7/31/2016, 3:58:04 PM	
Ŧ0	<b>&gt;</b> http	7/31/2016, 3:56:25 PM	
Ŧ0	<b>출</b> kudu	7/31/2016, 12:34:34 PM	
Ŧ0	<b>™</b> W3SVC1444384857	7/31/2016, 3:58:04 PM	
<b>1</b> /0	<b>L</b> catalina.2016-07-31.log	7/31/2016, 3:58:46 PM	27 KB
<b>1</b> /0	eventlog.xml	7/31/2016, 4:10:28 PM	3 KB
<b>±</b> /0	host-manager.2016-07-31.log	7/31/2016, 12:34:37 PM	
1 2 -	■ · · · · · · · · · · · · · · · · · · ·	=:0.1:00.10 1.10.00 =1.1	

Use old console

Type 'exit' then hit 'enter' to get a new CMD process.

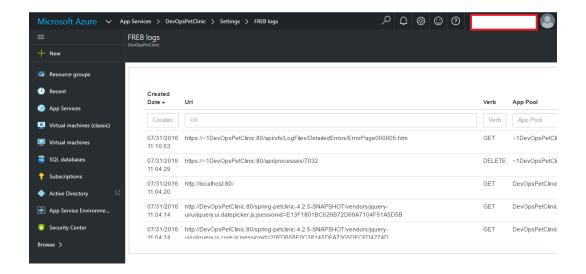
Type 'cls' to clear the console



## ... / DetailedErrors 🛨 | 5 items 🛕 🔇 💄

	Name	Modified	Size
<b>1</b> /0	ErrorPage000001.htm	7/31/2016, 3:57:49 PM	5 KB
<b>1</b> /0	LE ErrorPage000002.htm	7/31/2016, 3:57:50 PM	5 KB
<b>1</b> /0	ErrorPage000003.htm	7/31/2016, 3:57:50 PM	5 KB
<b>1</b> /0	ErrorPage000004.htm	7/31/2016, 3:57:53 PM	5 KB
<b>1</b> /0	ErrorPage000005.htm	7/31/2016, 3:58:04 PM	5 KB

Kudu Remote Execution Console
Type 'exit' then hit 'enter' to get a new CMD process.
Type 'cls' to clear the console



#### HTTP Error 502.3 - Bad Gateway

The specified CGI application encountered an error and the server terminated the process.

#### Most likely causes:

- The CGI application did not return a valid set of HTTP errors.
  A server acting as a proxy or gateway was unable to process the request due to an error in a parent gateway.

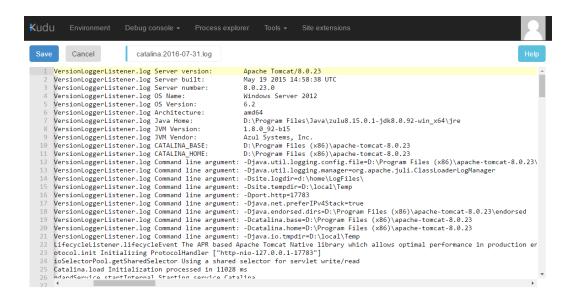
#### Things you can try:

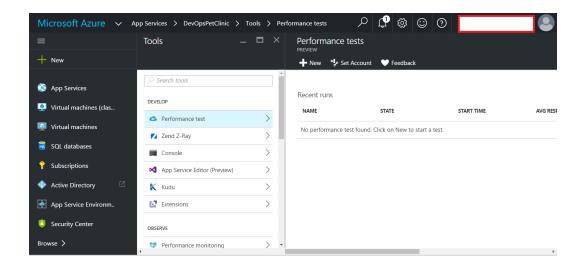
- Use DebugDiag to troubleshoot the CGI application.
   Determine if a proxy or gateway is responsible for this error.

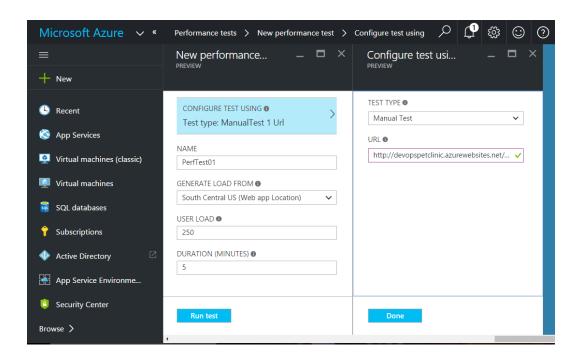
#### **Detailed Error Information:**

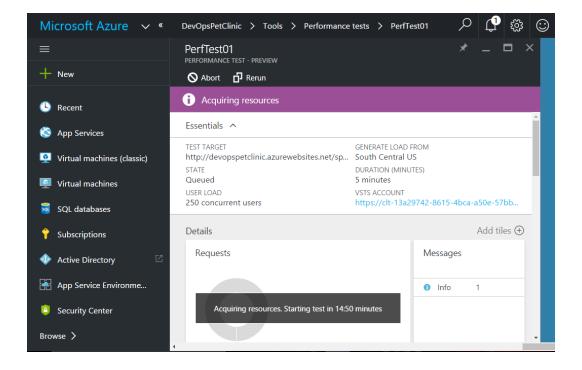
Module httpPlatformHandler Requested URI http://localhost:80/ Notification ExecuteRequestHandler Physical Path D:\home\site\wwwroot Handler httpPlatformHandlerMain Logon Method Error Code 0x80072ee2 Logon User Anonymous

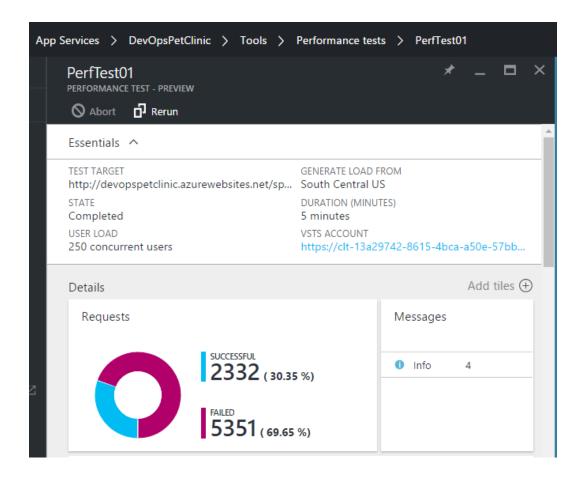
088733-201607311026.log #Software: Microsoft Internet Information Services 8.0
#Fields: date time s-sitename cs-method cs-uri-stem cs-uri-query s-port cs-username c-ip cs(User-Agent) cs(Cookie) cs(Refere 2016-07-31 10:25:30 - UDEVOPSPETCLINIC GET / Apj/commandstream/connect transport-serverSentEvents&clientProtocol-1.4&connectio 2016-07-31 10:25:30 - UDEVOPSPETCLINIC GET / 80 - 100.92.34.48 - - - devopspetclinic.azurewebsites.net 200 0 370 340 980 2016-07-31 10:25:42 DEVOPSPETCLINIC GET / - 80 - 100.92.34.48 - - devopspetclinic.azurewebsites.net 200 0 0 370 340 980 2016-07-31 10:25:43 DEVOPSPETCLINIC GET / - 80 - 100.92.34.48 - - devopspetclinic.azurewebsites.net 200 0 0 370 340 980 2016-07-31 10:26:46 - UDEVOPSPETCLINIC GET / - 80 - 100.92.46.38 AlwaysOn - devopspetclinic.azurewebsites.net 200 0 0 2994 2016-07-31 10:26:46 - UDEVOPSPETCLINIC GET / - 80 - 100.92.46.38 AlwaysOn - devopspetclinic.azurewebsites.net 200 0 0 2994 2016-07-31 10:26:54 - UDEVOPSPETCLINIC GET / - 80 - 100.92.46.38 AlwaysOn - devopspetclinic.azurewebsites.net 200 0 0 2994 2016-07-31 10:26:58 - IDEVOPSPETCLINIC GET / - 80 - 100.92.46.38 AlwaysOn - devopspetclinic.azurewebsites.net 200 0 0 2995 2016-07-31 10:27:10 - UDEVOPSPETCLINIC GET / - 80 - 100.92.46.38 AlwaysOn - devopspetclinic.azurewebsites.net 200 0 0 2995 2016-07-31 10:27:10 - UDEVOPSPETCLINIC GET / apj/commandstream/reconnect transport-serverSentEvents&messageId-d-D136E1G-v%2C0 2016-07-31 10:27:10 - UDEVOPSPETCLINIC GET /apj/commandstream/reconnect transport-serverSentEvents&messageId-d-D136E1G-v%2C0 2016-07-31 10:27:11 - UDEVOPSPETCLINIC GET /apj/commandstream/reconnect transport-serverSentEvents&messageId-d-D136E1G-v%2C0 2016-07-31 10:27:14 - IDEVOPSPETCLINIC GET /apj/filesystemhub/reconnect transport-serverSentEvents&messageId-d-D136E1G-v%2C0 2016-07-31 10:27:14 - UDEVOPSPETCLINIC GET /apj/filesystemhub/reconnect transport-serverSentEvents&messageId-d-D136E1G-r%2C0 2016-07-31 10:27:14 - UDEVOPSPETCLINIC GET /apj/filesystemhub/reconnect transport-serverSentEvents&messageId-d-D136E1G-r%2C0 2016-07-31 1 Cancel

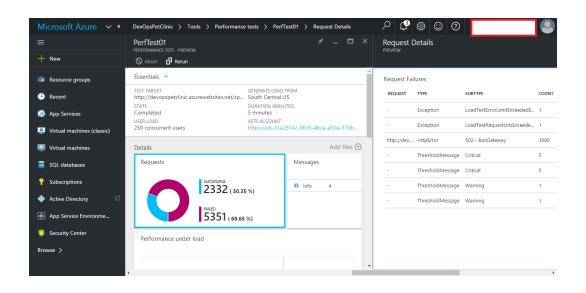


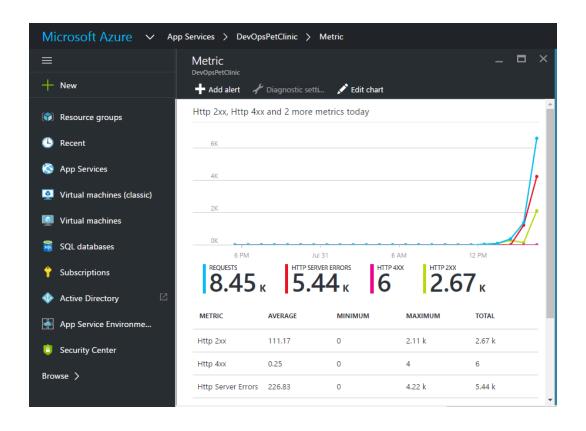


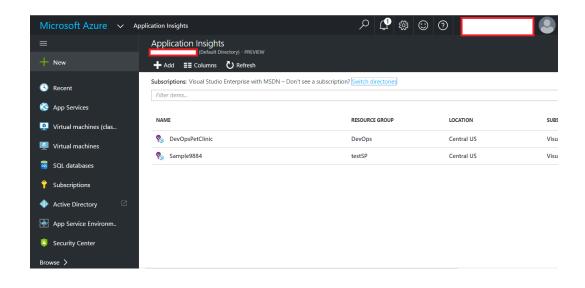


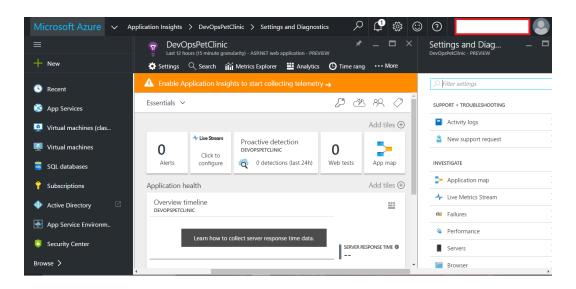


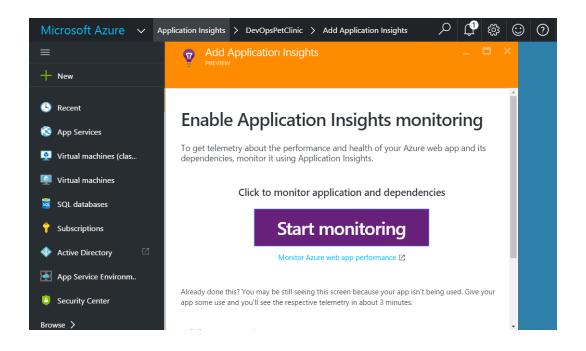


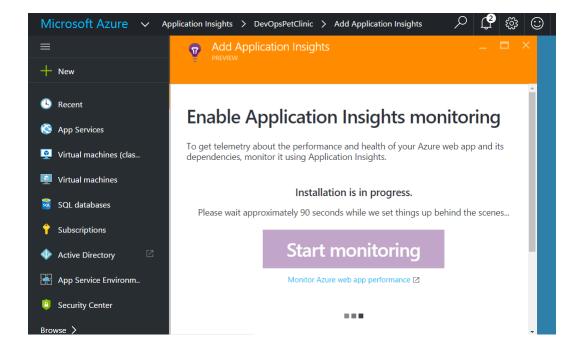


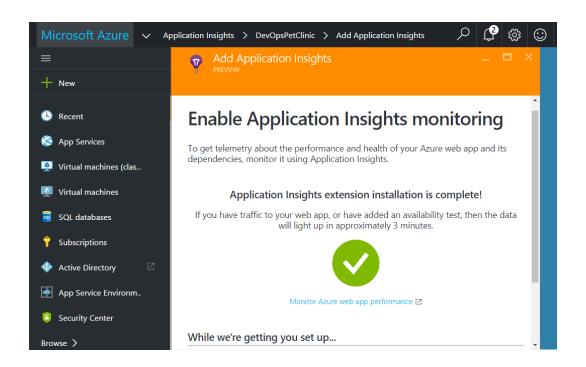


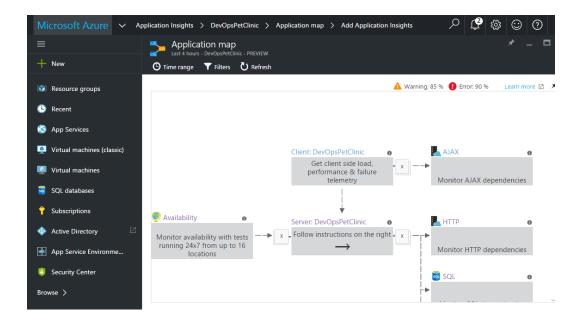


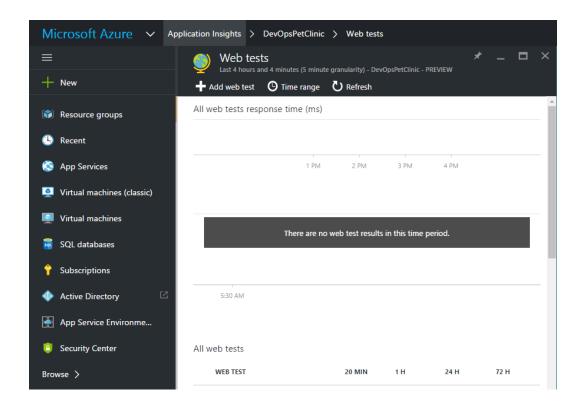


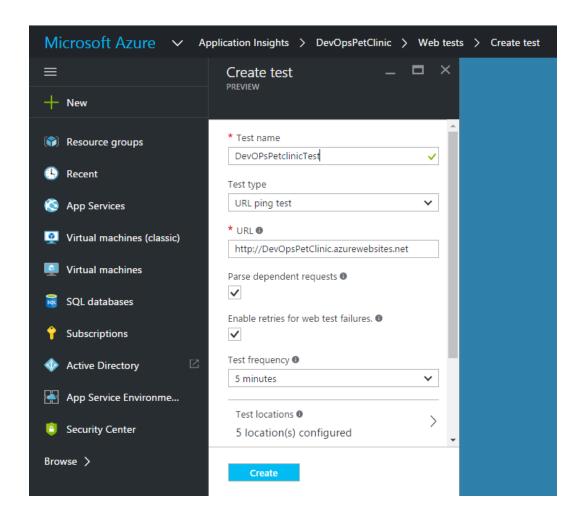


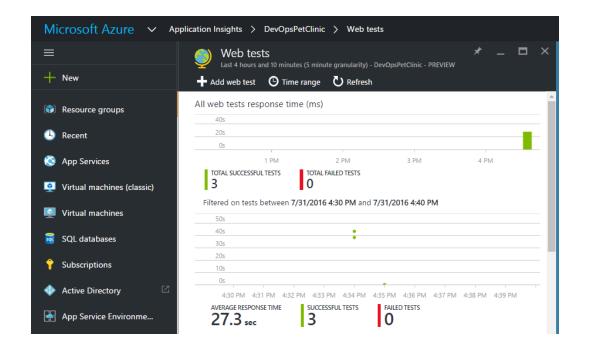




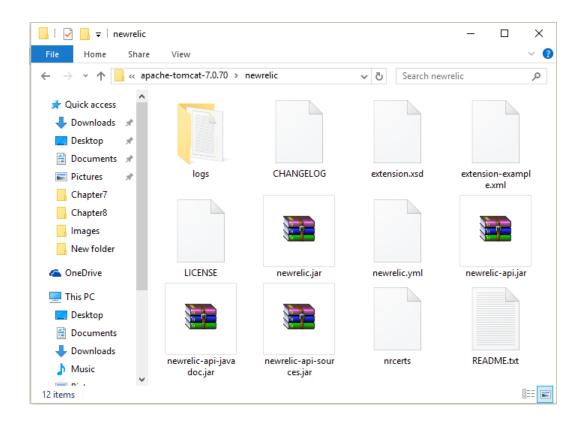




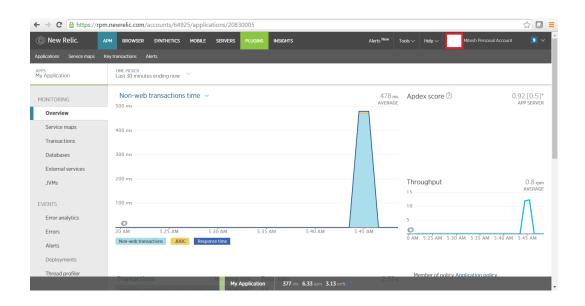


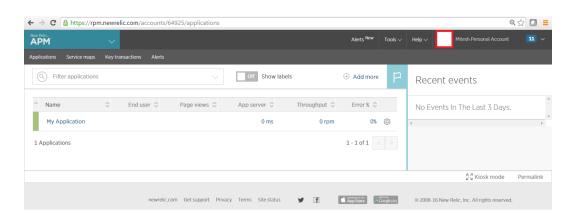


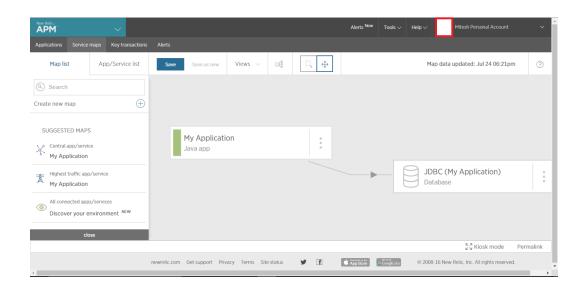
```
Microsoft Windows [Version 10.0.10586]
(c) 2015 Microsoft Corporation. All rights reserved.
C:\Users\Mitesh>cd \
C:\>cd apache-tomcat-7.0.70\newrelic
C:\apache-tomcat-7.0.70\newrelic>java -jar newrelic.jar install
***** ( ( o)) New Relic Java Agent Installer
***** Installing version 3.30.1 ...
 Backed up start script to C:\apache-tomcat-7.0.70\bin\catalina.bat.20160724_180719
 Added agent switch to start script C:\apache-tomcat-7.0.70\bin\catalina.bat
 No need to create New Relic configuration file because:
A config file already exists: C:\apache-tomcat-7.0.70\newrelic\newrelic.yml
***** Install successful
***** Next steps:
You're almost done! To see performance data for your app:
1) Restart your app server
2) Exercise your app
3) Log into http://rpm.newrelic.com
Within two minutes, your app should show up, ready to monitor and troubleshoot.
If app data doesn't appear, check newrelic/logs/newrelic_agent.log for errors.
C:\apache-tomcat-7.0.70\newrelic>
```

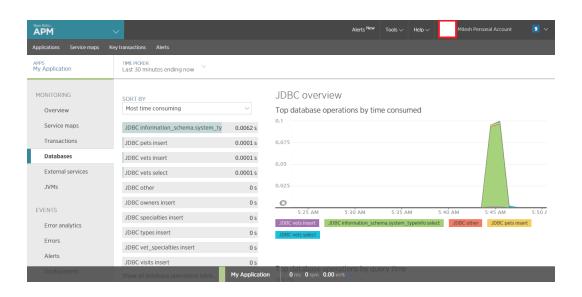


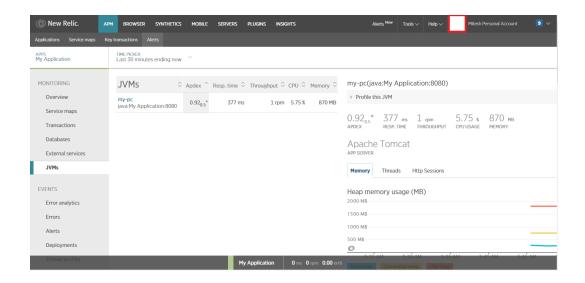
```
Jul 24, 2016 18:14:17 +0530 [6920 7] com.newrelic INFO: Instrumentation
com.newrelic.instrumentation.hibernate-3.5 is enabled. Loading.
Jul 24, 2016 18:14:19 +0530 [6920 1] com.newrelic.agent.RPMServiceManagerImpl INFO: Configured to connect to New Relic at collector.newrelic.com:443
Jul 24, 2016 18:14:20 +0530 [6920 1] com.newrelic INFO: Setting audit_mode to false
Jul 24, 2016 18:14:20 +0530 [6920 1] com.newrelic INFO: Setting protocol to "https" Jul 24, 2016 18:14:21 +0530 [6920 1] com.newrelic.agent.config.ConfigServiceImpl INFO:
Configuration file is C:\apache-tomcat-7.0.70\newrelic\.\newrelic.yml
Jul 24, 2016 18:14:21 +0530 [6920 1] com.newrelic INFO: New Relic Agent v3.30.1 has started Jul 24, 2016 18:14:21 +0530 [6920 1] com.newrelic INFO: Agent class loader:
sun.misc.Launcher$AppClassLoader@58644d46
Jul 24, 2016 18:14:21 +0530 [6920 1] com.newrelic INFO: Premain startup complete in 6,381ms
Jul 24, 2016 18:14:25 +0530 [6920 1] com.newrelic INFO: Server Info: Apache Tomcat/7.0.70
Jul 24, 2016 18:14:46 +0530 [6920 27] com.newrelic INFO: Display host name is my-pc for
application My Application
Jul 24, 2016 18:14:49 +0530 [6920 27] com.newrelic INFO: Collector redirection to
collector-216.newrelic.com:443
Jul 24, 2016 18:14:50 +0530 [6920 27] com.newrelic INFO: Agent run id: 89464200178842674 Jul 24, 2016 18:14:50 +0530 [6920 27] com.newrelic INFO: Agent 6920@my-pc/My Application
connected to collector.newrelic.com:443
Jul 24, 2016 18:14:50 +0530 [6920 27] com.newrelic INFO: Reporting to:
https://rpm.newrelic.com/accounts/64925/applications/20830005
Jul 24, 2016 18:14:50 +0530 [6920 27] com.newrelic INFO: Using RUM version 963 for application
"My Application"
Jul 24, 2016 18:14:50 +0530 [6920 27] com.newrelic INFO: Real user monitoring is enabled with auto instrumentation for application "My Application"
```





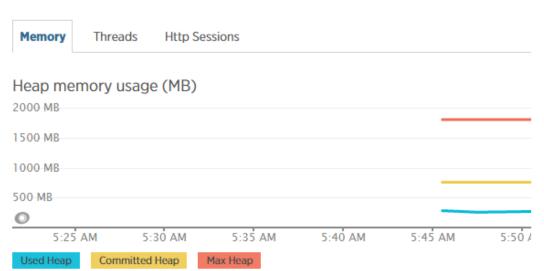




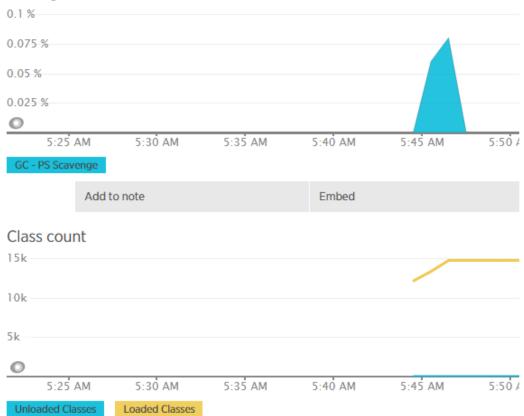


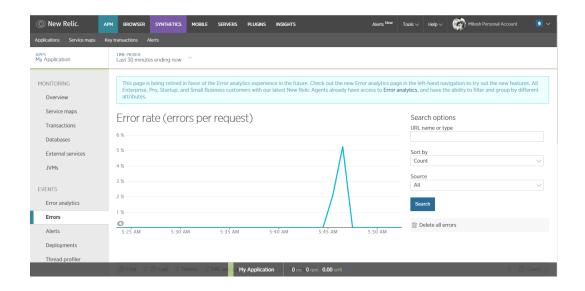
## Apache Tomcat

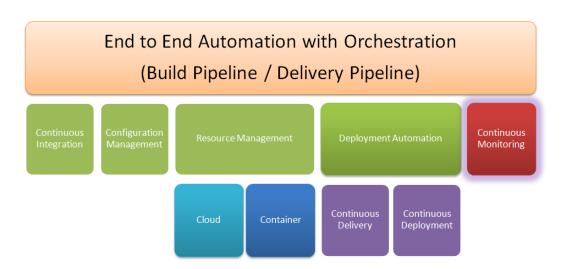
APP SERVER



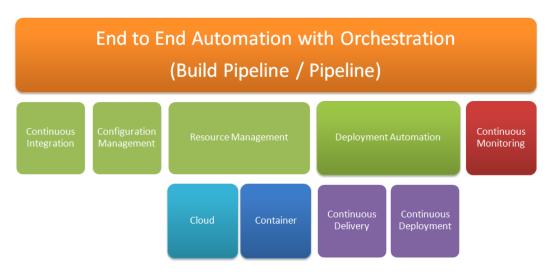
### Garbage collection CPU time







## **Chapter 9: Orchestrating Application Deployment**



Build Job 1: Continuous Integration

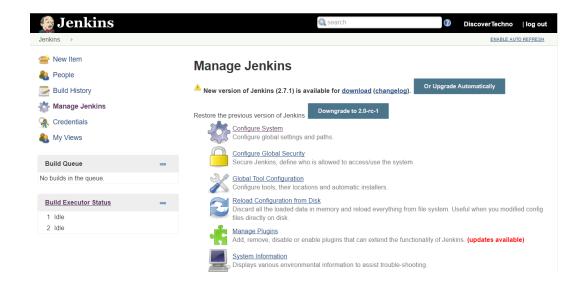
- Code Chekout
- Compile
- Junit Test Case Execution
- Code Ananlysis (Optional)

Build Job 2: Cloud Provisioning and Configuration Management

- Knife EC2 plugin
- Tomcat & Java Cookbooks with dependencies

Build Job 3: Continuous Delivery & Continuous Deployment

- Permissions
- Stop and Start Tomcat Server
- Deploy WAR file





# **Installing Plugins/Upgrades**

#### Preparation

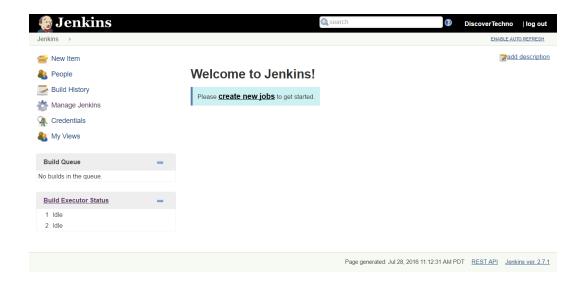
- · Checking internet connectivity
- · Checking update center connectivity
- Success

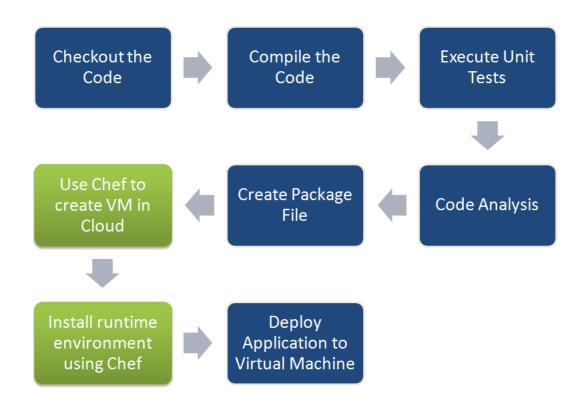
jenkins.war



So back to the top page (you can start using the installed plugins right away)

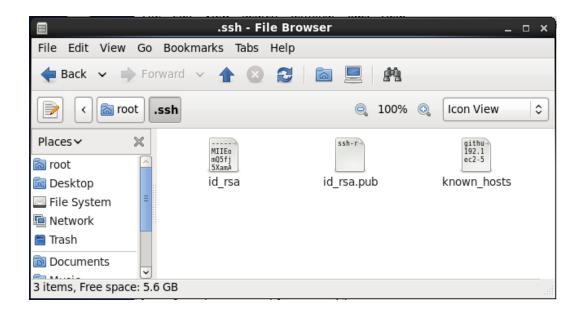
Restart Jenkins when installation is complete and no jobs are running







```
root@devops1:~/Desktop
File Edit View Search Terminal Help
[root@devops1 Desktop]# ssh-keygen
Generating public/private rsa key pair.
Enter file in which to save the key (/root/.ssh/id rsa):
/root/.ssh/id_rsa already exists.
Overwrite (y/n)? y
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in /root/.ssh/id rsa.
Your public key has been saved in /root/.ssh/id rsa.pub.
The key fingerprint is:
11:cd:f7:9b:7f:6e:24:ea:dc:9b:18:90:c4:e0:18:35 root@devops1
The key's randomart image is:
+--[ RSA 2048]----+
       . . Eo
        + =0 .
       . 0 0. .
         0. .
        S o
               0
            . + .
            .+ ++0
[root@devops1 Desktop]#
```



### File Edit View Search Terminal Help

[root@devops1 Desktop]# ssh-copy-id -i ~/.ssh/id\_rsa.pub 192.168.0.106 Agent admitted failure to sign using the key. root@192.168.0.106's password:

Now try logging into the machine, with "ssh '192.168.0.106'", and check in:

.ssh/authorized keys

to make sure we haven't added extra keys that you weren't expecting.

[root@devops1 Desktop]# ssh-copy-id -i ~/.ssh/id\_rsa.pub mitesh@192.168.0.106 mitesh@192.168.0.106's password:

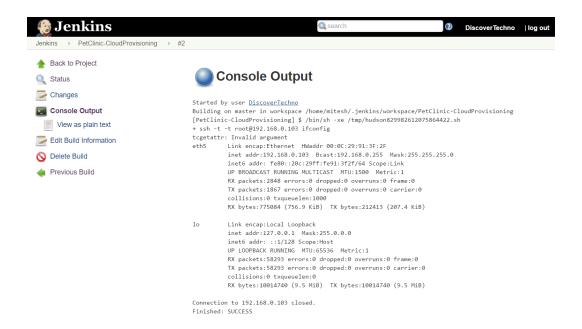
Now try logging into the machine, with "ssh 'mitesh@192.168.0.106'", and check in:

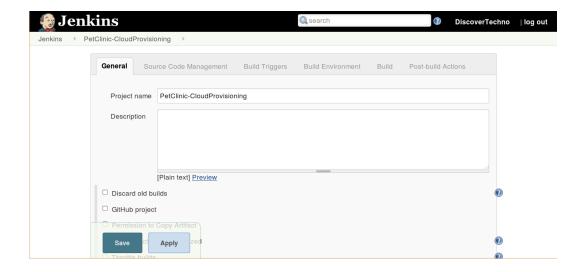
.ssh/authorized\_keys

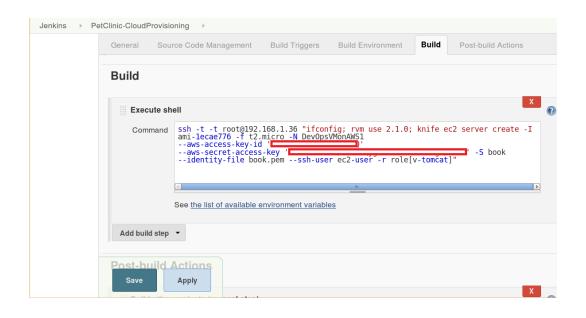
to make sure we haven't added extra keys that you weren't expecting.



```
[mitesh@devops1 Desktop]$ ssh-copy-id -i ~/.ssh/id rsa.pub root@192.168.0.103
root@192.168.0.103's password:
Now try logging into the machine, with "ssh 'root@192.168.0.103'", and check in:
  .ssh/authorized keys
to make sure we haven't added extra keys that you weren't expecting.
[mitesh@devops1 Desktop]$ ssh -t root@192.168.0.103
Agent admitted failure to sign using the key.
root@192.168.0.103's password:
[mitesh@devops1 Desktop]$ ssh-add
Identity added: /home/mitesh/.ssh/id rsa (/home/mitesh/.ssh/id rsa)
[mitesh@devops1 Desktop]$ ssh -t root@192.168.0.103
Last login: Thu Jul 28 12:21:56 2016 from 192.168.0.106
[root@devops1 ~]# ifconfig
         Link encap:Ethernet HWaddr 00:0C:29:91:3F:2F
         inet addr:192.168.0.103 Bcast:192.168.0.255 Mask:255.255.25
         inet6 addr: fe80::20c:29ff:fe91:3f2f/64 Scope:Link
         UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1
         RX packets:2664 errors:0 dropped:0 overruns:0 frame:0
         TX packets:1727 errors:0 dropped:0 overruns:0 carrier:0
         collisions:0 txqueuelen:1000
         RX bytes:716002 (699.2 KiB) TX bytes:197090 (192.4 KiB)
lo
         Link encap:Local Loopback
         inet addr:127.0.0.1 Mask:255.0.0.0
         inet6 addr: ::1/128 Scope:Host
         UP LOOPBACK RUNNING MTU:65536 Metric:1
         RX packets:50663 errors:0 dropped:0 overruns:0 frame:0
         TX packets:50663 errors:0 dropped:0 overruns:0 carrier:0
         collisions:0 txqueuelen:0
```









inet addr:127.0.0.1 Mask:255.0.0.0
inet6 addr: ::1/128 Scope:Host
UP LOOPBACK RUNNING MTU:65536 Metric:1
RX packets:69654 errors:0 dropped:0 overruns:0 frame:0
TX packets:69654 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:0
RX bytes:11966874 (11.4 MiB) TX bytes:11966874 (11.4 MiB)

[32mUsing /usr/local/rvm/gems/ruby-2.1.0[0m [36mInstance ID[0m: i-075fa68dc0e6a8b14

[36mFlavor[0m: t2.micro [36mImage[0m: ami-1ecae776 [36mRegion[0m: us-east-1

[36mAvailability Zone[0m: us-east-1b [36mSecurity Groups[0m: default [36mTags[0m: Name: DevOpsVMonAWS

[36mSSH Key[0m: book

[35mWaiting for EC2 to create the instance[0m....

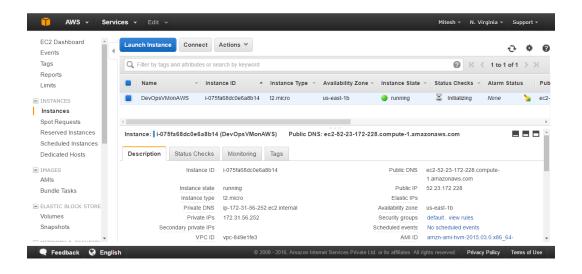
[36mPublic DNS Name[0m: ec2-52-23-172-228.compute-1.amazonaws.com

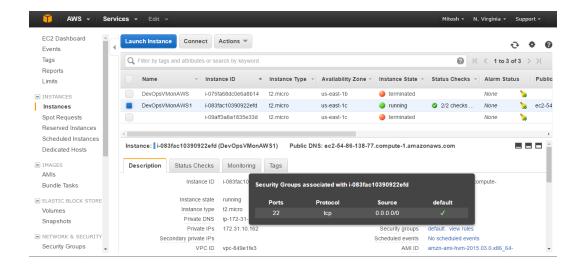
[36mPublic IP Address[0m: 52.23.172.228

[36mPrivate DNS Name[0m: ip-172-31-56-252.ec2.internal

[36mPrivate IP Address[0m: 172.31.56.252







[32mUsing /usr/local/rvm/gems/ruby-2.1.0[0m [36mInstance ID[0m: i-024d3bf83022b89e4 [36mFlavor[0m: t2.micro [36mImage[0m: ami-1ecae776 [36mRegion[0m: us-east-1 [36mAvailability Zone[0m: us-east-1d [36mSecurity Groups[0m: default [36mTags[0m: Name: DevOpsVMonAWS [36mSSH Key[0m: book [35mWaiting for EC2 to create the instance[0m..... [36mPublic DNS Name[0m: ec2-52-23-215-193.compute-1.amazonaws.com [36mPublic IP Address[0m: 52.23.215.193 [36mPrivate DNS Name[0m: ip-172-31-31-133.ec2.internal [36mPrivate IP Address[0m: 172.31.31.133 [35mWaiting for sshd access to become available[0m......done Creating new client for DevOpsVMonAWS Creating new node for DevOpsVMonAWS Connecting to [1mec2-52-23-215-193.compute-1.amazonaws.com[0m [36mec2-52-23-215-193.compute-1.amazonaws.com[0m -----> Installing Chef Omnibus (-v 12) [36mec2-52-23-215-193.compute-1.amazonaws.com[0m downloading https://omnitruck-direct.chef.io/chef/install.sh [36mec2-52-23-215-193.compute-1.amazonaws.com[0m to file /tmp/install.sh.2313/install.sh [36mec2-52-23-215-193.compute-1.amazonaws.com[0m trying wget... [36mec2-52-23-215-193.compute-1.amazonaws.com[0m el 6 x86\_64

```
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m~Getting~information~for~chef~stable~12~for~el.\dots]{ }
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m downloading <a href="https://omnitruck-direct.chef.io/stable/chef/metadata?">https://omnitruck-direct.chef.io/stable/chef/metadata?</a>
v=12&p=e1&pv=6&m=x86_64
[36mec2-52-23-215-193.compute-1.amazonaws.com] \\ 0m \qquad to \ file \ /tmp/install.sh.2318/metadata.txt
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m trying wget...
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m sha256
9c6455bd30568c639e19485837bacbd07972c8e9f5cc3831fba4bc415bed24ad
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m url <a href="https://packages.chef.io/stable/el/6/chef-12.12.15-">https://packages.chef.io/stable/el/6/chef-12.12.15-</a>
1.el6.x86_64.rpm
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m version
                                                                                                                                                                                                                                                            12.12.15
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m downloaded metadata file looks valid...
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m downloading $\frac{https://packages.chef.io/stable/el/6/chef-12.12.15-193.compute-1.amazonaws.com[0m downloading $\frac{https://packages.chef.io/stable/el/6/chef-12.12.15-193.compute-1.amazonaws.compute-1.amazonaws.compute-1.amazonaws.compute-1.amazonaws.compute-1.amazonaws.compute-1.amazonaws.compute-1.amazonaws.compute-1.amazonaws.compute-1.amazonaws.compute-1.amazonaws.compute-1.amazonaws.compute-1.amazonaws.compute-1.amazonaws.compute-1.amazonaws.compute-1.amazonaws.compute-1.amazonaws.compute-1.amazonaws.compute-1.amazonaws.compute-1.amazonaws.compute-1.amazonaws.compute-1.amazonaws.compute-1.amazonaws.compute-1.amazonaws.compute-1.amazonaws.compute-1.amazonaws.compute-1.amazonaws.compute-1.amazonaws.compute-1.amazonaws.compute-1.amazonaws.compute-1.amazonaws.compute-1.amazonaws.compute-1.amazonaws.compute-1.amazonaws.compute-1.amazonaws.compute-1.amazonaws.compute-1.amazonaws.compute-1.amazonaws.compute-1.amazonaws.compute-1.amazonaws.compute-1.amazonaws.compute-1.amazonaws.compute-1.amazonaws.compute-1.amazonaws.compute-1.amazonaws.compute-1.amazonaws.compute-1.amazonaws.compute-1.amazonaws.compute-1.amazonaws.compute-1.amazonaws.compute-1.amazonaws.compute-1.amazonaws.compute-1.amazonaws.compute-1.am
1.el6.x86_64.rpm
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m] to file /tmp/install.sh.2318/chef-12.12.15-1.el6.x86\_64.rpm] to file /tmp/install.sh.2318/chef-12.12.15
[36 mec2-52-23-215-193.compute-1.amazonaws.com[ \textit{0m trying wget}...
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m Comparing checksum with sha256sum...
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m Installing chef 12
```

```
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m Installing chef 12
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m installing with rpm...
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m warning: /tmp/install.sh.2318/chef-12.12.15-1.el6.x86_64.rpm: Header
V4 DSA/SHA1 Signature, key ID 83ef826a: NOKEY
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m Preparing...
(100%)#
                  (100%)##
                                     (100%)###
(100%)####
                  (100%)#####
                                     (100%)######
(100%)#######
                  (100%)########
                                     (100%)#########
(100%)##########
                  (100%)###########
                                     (100%)#############
(100%)##############
                  (100%)##############
                                     (100%)###############
(100%)################
                  [36mec2-52-23-215-193.compute-1.amazonaws.com[0m Updating / installing...
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m
                       1:chef-12.12.15-1.el6
                  ( 4%)##
                                     ( 7%)###
( 1%)#
( 10%)####
                  ( 13%)#####
                                     ( 16%)######
( 19%)#######
                  ( 22%)########
                                     ( 25%)#########
( 28%)##########
                  ( 31%)###########
                                     ( 34%)############
( 37%)#############
                  ( 40%)#############
                                     ( 43%)################
                  ( 49%)###############
                                     ( 57%)##################
```

```
[36mec2-52-23-215-193.compute-1.amazonaws.com[@m Thank you for installing Chef!] \\
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m Starting the first Chef Client run...
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m Starting Chef Client, version 12.12.15
[36 mec2-52-23-215-193.compute-1.amazonaws.com [0m resolving cookbooks for run list: ["tomcat"]
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m Synchronizing Cookbooks:
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m - tomcat (0.17.0)
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m - java (1.39.0)
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m - apt (3.0.0)
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m - chef-sugar (3.3.0)
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m - openssl (4.4.0)
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m Installing Cookbook Gems:
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m Compiling Cookbooks...
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m [2016-07-28T20:42:33+00:00] WARN: Chef::Provider::AptRepository
already exists! Cannot create deprecation class for LWRP provider apt_repository from cookbook apt
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m [2016-07-28T20:42:33+00:00] WARN: AptRepository already exists!] (2016-07-28T20:42:33+00:00] WARN: AptRepository already exists!] (2016-07-28T20:42:33+00:00] (2016-07-28T20:42:33+00:00) (2016-07-28T20:42:30-00:00) (2016-07-28T20:42:30-00:00) (2016-07-28T20:42:30-00:00) (2016-07-28T20:42:30-00:00) (2016-07-28T20:40) (2016-07-28T20:40) (2016-07-28T20:40) (2016-07-28T20:40) (2016-07-28T20:40) (2016-07-28T20:40) (2016-07-28T20:
Deprecation class overwrites Custom resource apt_repository from cookbook apt
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m Converging 3 resources
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m Recipe: tomcat::default
```

[36mec2-52-23-215-193.compute-1.amazonaws.com[0m Recip	e: tomcat::default
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m * y	um_package[tomcat6] action install
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m -	install version 6.0.45-1.5.amzn1 of package tomcat6
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m * y	um_package[tomcat6-admin-webapps] action install
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m -webapps	install version 6.0.45-1.5.amzn1 of package tomcat6-admin-
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m * t	omcat_instance[base] action configure (up to date)
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m * d	irectory[/usr/share/tomcat6/lib/endorsed] action create
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m -	create new directory /usr/share/tomcat6/lib/endorsed
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m -	change mode from '' to '0755'
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m * t	emplate[/etc/sysconfig/tomcat6] action create
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m - 7eb379	update content in file /etc/sysconfig/tomcat6 from 32bba1 to
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m -	/etc/sysconfig/tomcat6 2016-07-18 23:03:48.000000000 +0000
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m + 07-28 20:43:24.765025585 +0000	++ /etc/sysconfig/.chef-tomcat620160728-2391-pszhdv 2016-
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m @	@ -1,3 +1,9 @@
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m +	#
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m + 133.ec2.internal	# Dynamically generated by Chef on ip-172-31-31-

```
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m
                                                          <!-- A "Connector" using the shared thread pool-->
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m
                                                          <Connector executor="tomcatThreadPool"</pre>
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m
                                                                    port="8080" protocol="HTTP/1.1"
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m
                                                                    connectionTimeout="20000"
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m
                                                                    port="8080" protocol="HTTP/1.1"
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m
                                                                    connectionTimeout="20000"
                                                                    redirectPort="8443" />
[36 mec2 - 52 - 23 - 215 - 193.compute - 1.amazonaws.com[ \theta m
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m
                                                         -->
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m
                                                          <!-- Define a SSL HTTP/1.1 Connector on port 8443
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m
                                                              This connector uses the JSSE configuration, when using
APR, the
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m
                                                             This connector uses the JSSE configuration, when using
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m
                                                             connector should be using the OpenSSL style
configuration
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m
                                                              described in the APR documentation -->
```

```
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m
                                                  * service[tomcat6] action start
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m
                                                    start service service[tomcat6]
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m
                                                  * execute[wait for tomcat6] action run
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m
                                                    - execute sleep 5
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m
                                                  * service[tomcat6] action enable
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m
                                                    enable service service[tomcat6]
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m
                                                  * execute[wait for tomcat6] action run
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m
                                                    - execute sleep 5
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m
                                                  * execute[wait for tomcat6] action nothing
:nothing)
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m
                                                  * service[tomcat6] action restart
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m
                                                    - restart service service[tomcat6]
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m
                                                  * execute[wait for tomcat6] action run
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m
                                                    - execute sleep 5
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m
[36mec2-52-23-215-193.compute-1.amazonaws.com[0m Running handlers:
```

[36mec2-52-23-215-193.compute-1.amazonaws.com[0m Running handlers complete

#### [36mec2-52-23-215-193.compute-1.amazonaws.com[0m

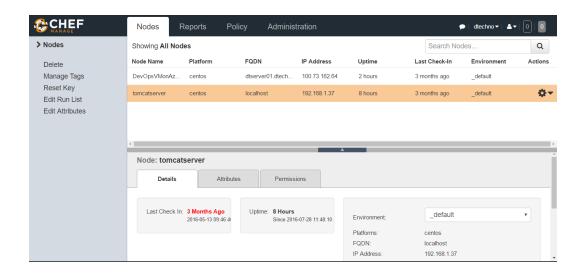
[36 mec2-52-23-215-193.compute-1.amazonaws.com[ Om Chef Client finished, 13/15 resources seconds

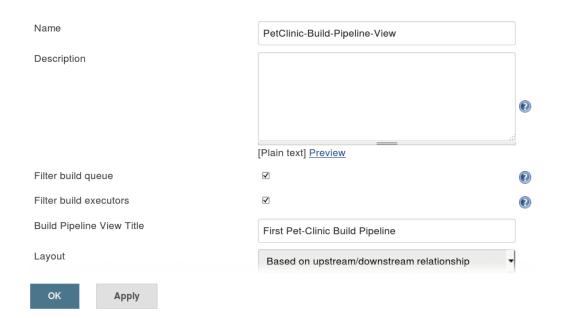
[36mInstance ID[0m: i-024d3bf83022b89e4 [36mFlavor[0m: t2.micro [36mImage[0m: ami-1ecae776 [36mRegion[0m: us-east-1 [36mAvailability Zone[0m: us-east-1d [36mSecurity Groups[0m: default [36mSecurity Group Ids[0m: default [36mTags[0m: Name: DevOpsVMonAWS [36mSSH Key[0m: book [36mRoot Device Type[0m: ebs [36mRoot Volume ID[0m: vol-00aae3951d7ed88bb [36mRoot Device Name[0m: /dev/xvda [36mRoot Device Delete on Terminate[0m: true [35mBlock devices[0m [35m======[0m [36mDevice Name[0m: /dev/xvda [36mVolume ID[0m: vol-00aae3951d7ed88bb [36mDelete on Terminate[0m: true  $[35m \hbox{\tt m=====}[0m$ [36mPublic DNS Name[0m: ec2-52-23-215-193.compute-1.amazonaws.com [36mPublic IP Address[0m: 52.23.215.193 [36mPrivate DNS Name[0m: ip-172-31-31-133.ec2.internal [36mPrivate IP Address[0m: 172.31.31.133 [36mEnvironment[0m: \_default [36mRun List[0m: role[v-tomcat] Connection to 192.168.0.103 closed. Finished: SUCCESS

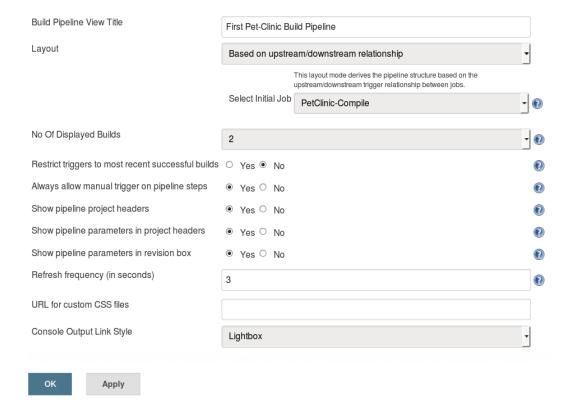
C:\Users\Mitesh\Downloads>java -jar slave.jar -jnlpUrl http://192.168.1.35:8080/compu ter/TestServer/slave-agent.jnlp -secret 65464e02c58c85b192883f7848ad2758408220bed2f3a f715c01c9b01cb72f9b Jul 30, 2016 11:21:00 AM hudson.remoting.jnlp.Main createEngine INFO: Setting up slave: TestServer Jul 30, 2016 11:21:00 AM hudson.remoting.jnlp.Main\$CuiListener <init> INFO: Jenkins agent is running in headless mode. Jul 30, 2016 11:21:00 AM hudson.remoting.jnlp.Main\$CuiListener status INFO: Locating server among [http://192.168.1.34:8080/, http://192.168.1.35:8080/] Jul 30, 2016 11:21:01 AM hudson.remoting.jnlp.Main\$CuiListener status INFO: Handshaking Jul 30, 2016 11:21:01 AM hudson.remoting.jnlp.Main\$CuiListener status INFO: Connecting to 192.168.1.35:33337 Jul 30, 2016 11:21:01 AM hudson.remoting.jnlp.Main\$CuiListener status INFO: Trying protocol: JNLP3-connect Jul 30, 2016 11:21:02 AM hudson.remoting.jnlp.Main\$CuiListener status INFO: Server didn't accept the handshake: Unknown protocol:Protocol:JNLP3-connect Jul 30, 2016 11:21:02 AM hudson.remoting.jnlp.Main\$CuiListener status INFO: Connecting to 192.168.1.35:33337 Jul 30, 2016 11:21:02 AM hudson.remoting.jnlp.Main\$CuiListener status INFO: Trying protocol: JNLP2-connect Jul 30, 2016 11:21:02 AM hudson.remoting.jnlp.Main\$CuiListener status INFO: Connected

S	Name ↓	Architecture	Clock Difference	Free Disk Space	Free Swap Space	Free Temp Space	Response Time	
	master	Linux (amd64)	In sync	7.88 GB	1.66 GB	7.88 GB	0ms	
	TestServer	Windows 8.1 (amd64)	In sync	31.88 GB	2.47 GB	120.38 GB	3087ms	
	Data obtained	58 sec	58 sec	1 min 0 sec	58 sec	58 sec	1 min 0 sec	

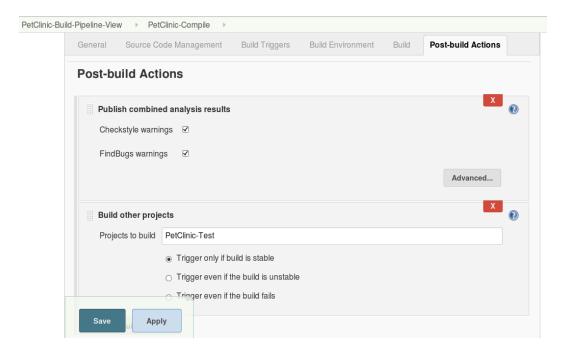
Refresh status

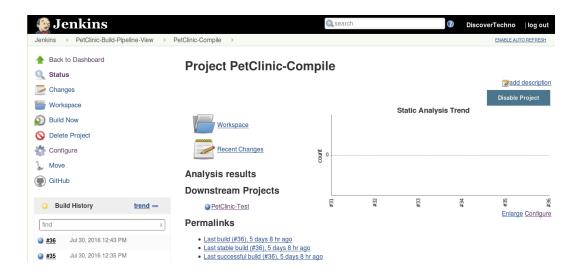


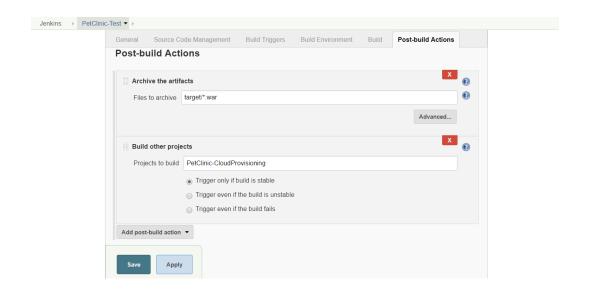


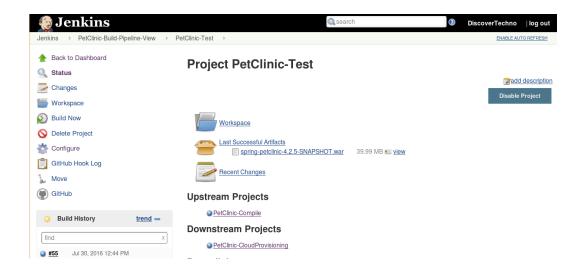






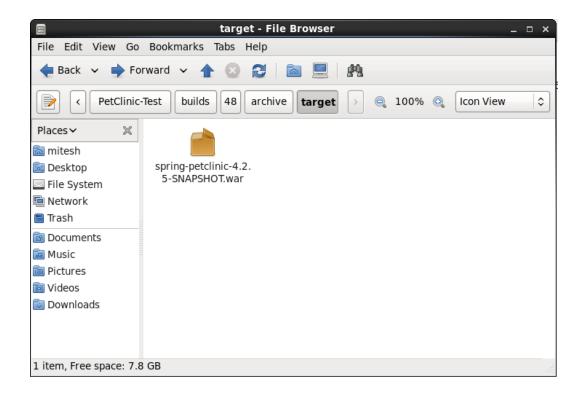


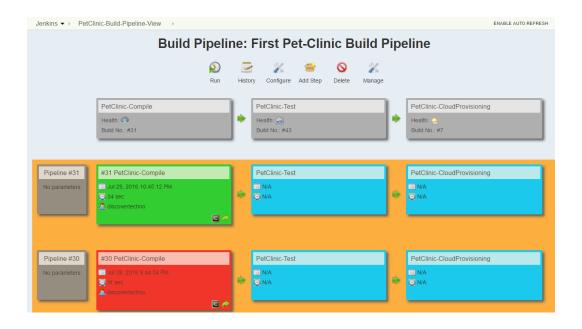


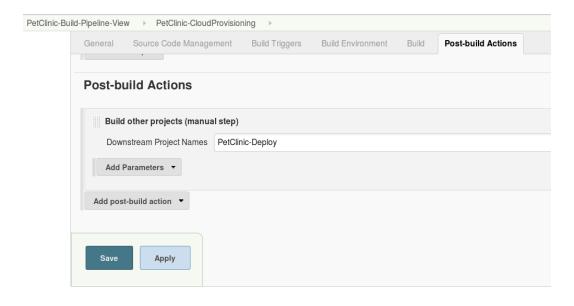


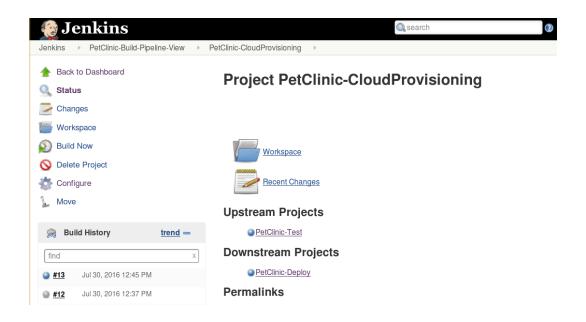


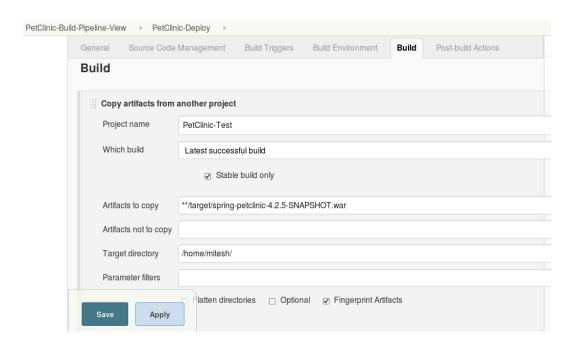
Page generated: Jul 29, 2016 11:39:55 PM PDT REST API Jenkins ver. 2.7.1



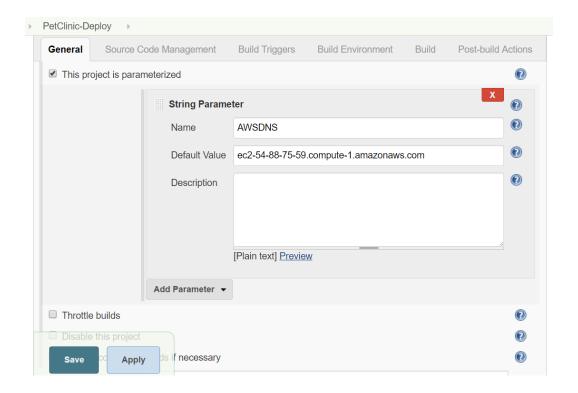


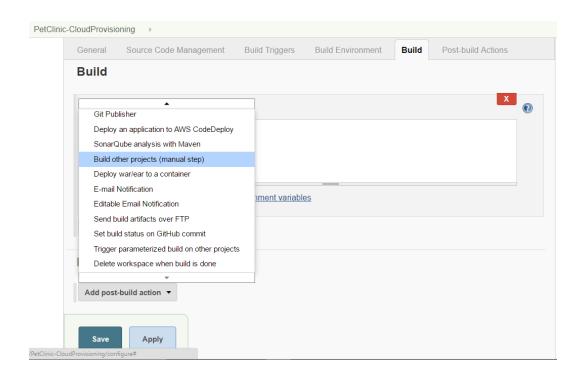


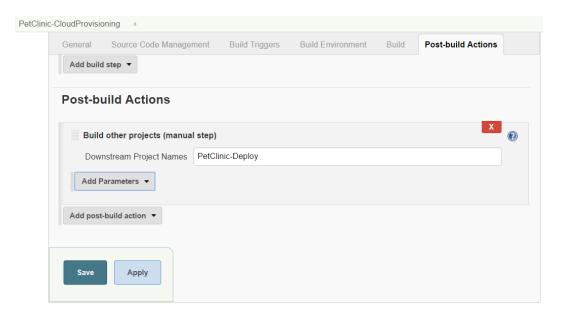










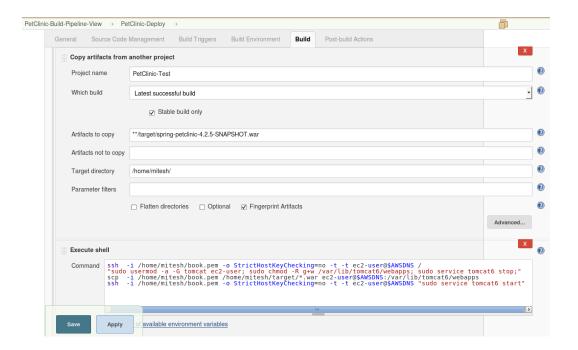


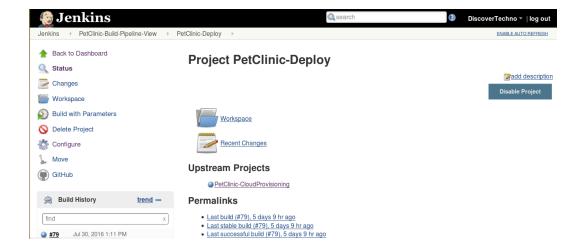
### SSH to AWS Instance

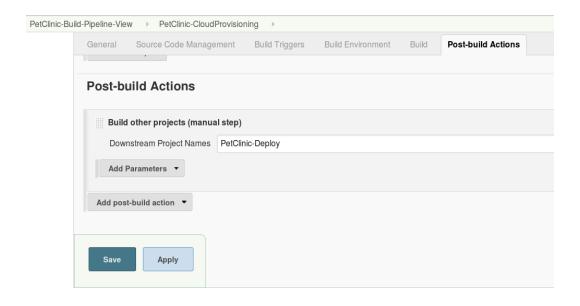
- Provides rights to ec2-user
- Access rights to /var/lib/tomcat6/webapps
- Stop the Tomcat for smooth deployment

Copy WAR file into destination webapps folder of Cloud resource's tomcat directory

Restart the tomcat instance and Verify Application





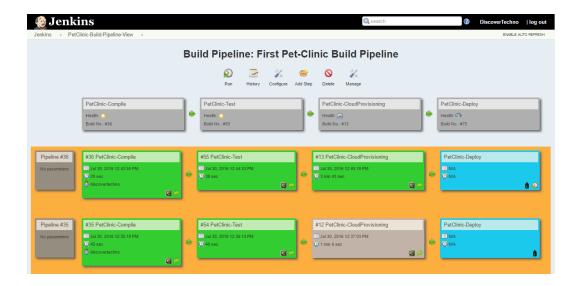


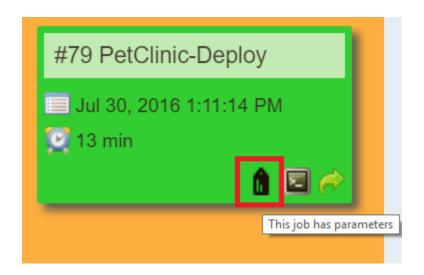
## **Console Output**

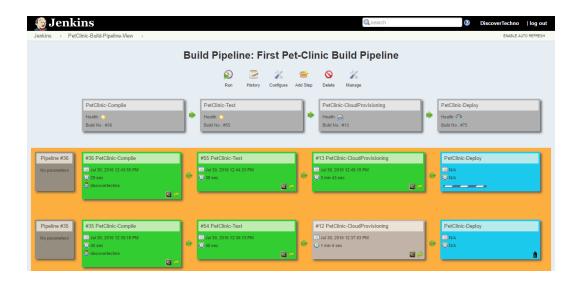
Finished: FAILURE

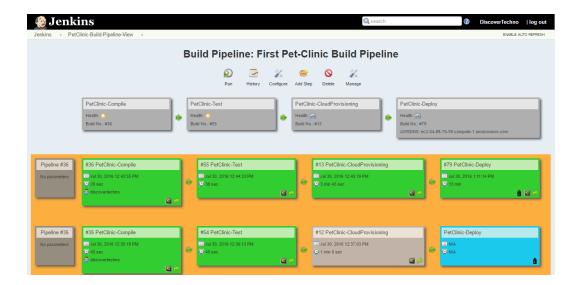
Started by user <u>DiscoverTechno</u> Building on master in workspace /home/mitesh/.jenkins/workspace/PetClinic-Deploy Copied 1 artifact from "PetClinic-Test" build number 48 [PetClinic-Deploy] \$ /bin/sh -xe /tmp/hudson573163956920132324.sh + ssh -o StrictHostKeyChecking=no -t -t ec2-user@52.90.116.36 -i /home/mitesh/book.pem ifconfig Warning: Permanently added '52.90.116.36' (RSA) to the list of known hosts. @ WARNING: UNPROTECTED PRIVATE KEY FILE! Permissions 0664 for '/home/mitesh/book.pem' are too open. It is required that your private key files are NOT accessible by others. This private key will be ignored. bad permissions: ignore key: /home/mitesh/book.pem Permission denied (publickey). Build step 'Execute shell' marked build as failure

Progress:









Create Environment in Amazon ELastic Beanstalk manually or with script

• AWS SDK or other options can be used

Build Job 1: Continuous Integration

- Code Chekout
- Compile
- Junit Test Case Execution
- Code Ananlysis (Optional)

Build Job 2: Continuous Delivery & Continuous Deployment

 Configure AWS Elastic Beanstalk Plugin details to Deploy WAR file

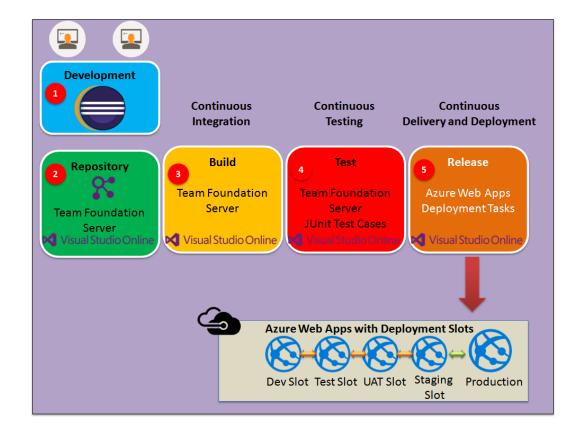
#### Build Job 1: Create Azure Web App

#### Build Job 2: Continuous Integration

Build Job 2: Continuous Delivery & Continuous Deployment

- Manually
- Azure Powershell Commands
- Note FTP URL and Set Deployment Credentials
- Code Chekout
- Compile
- Junit Test Case Execution
- Code Ananlysis (Optional)
- WAR file

 Use FTP plugins to deploy WAR file into Azure Web Apps



# Build Job 1: Continuous Integration

- Build Job 2: Create Docker Container
- Build Job 3: Continuous Delivery & Continuous Deployment

- Code Chekout
- Compile
- Junit Test Case Execution
- Code Ananlysis (Optional)
- WAR file

- Create Docker Container from Community Tomcat Image
- Add tomcat-users.xml for Manager App
- Use Manager App credential and Jenkins Deploy Plugin for Deployment in Docker Container

