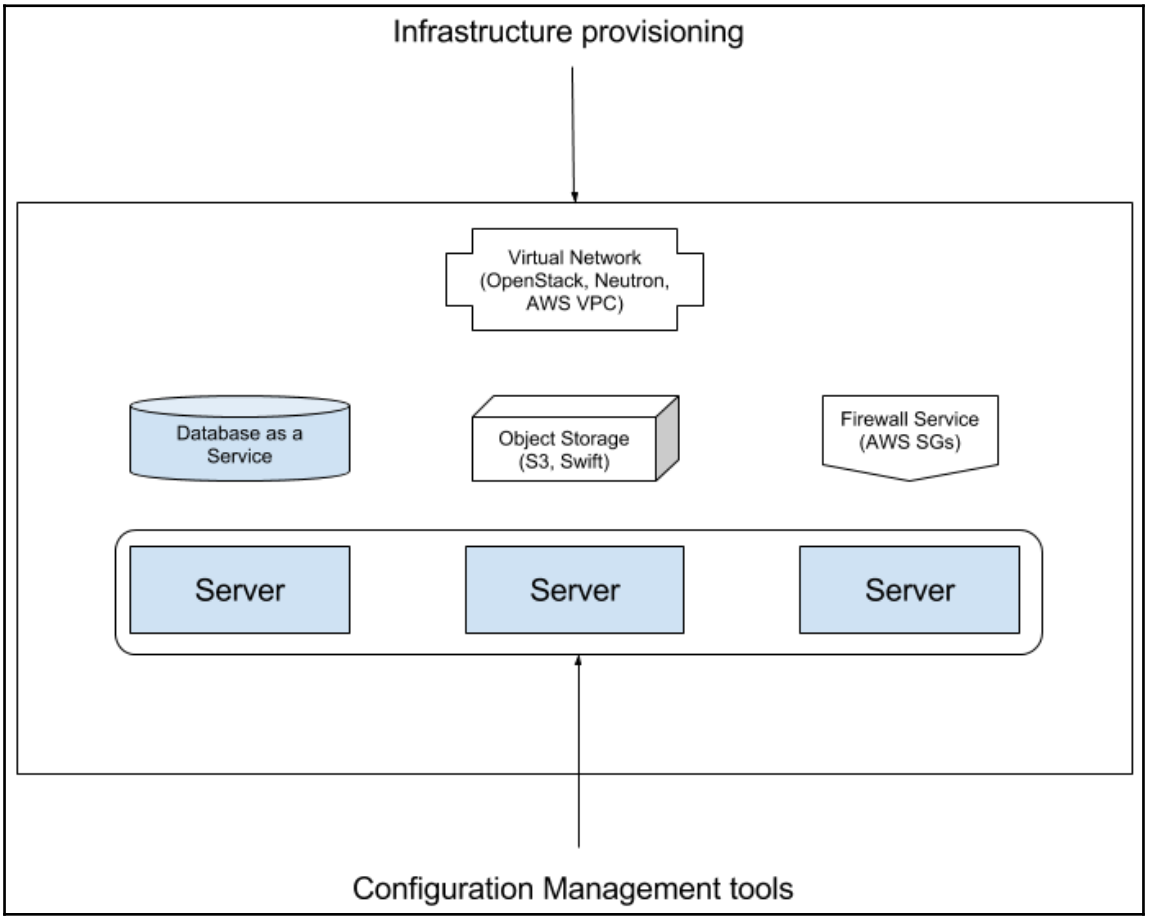
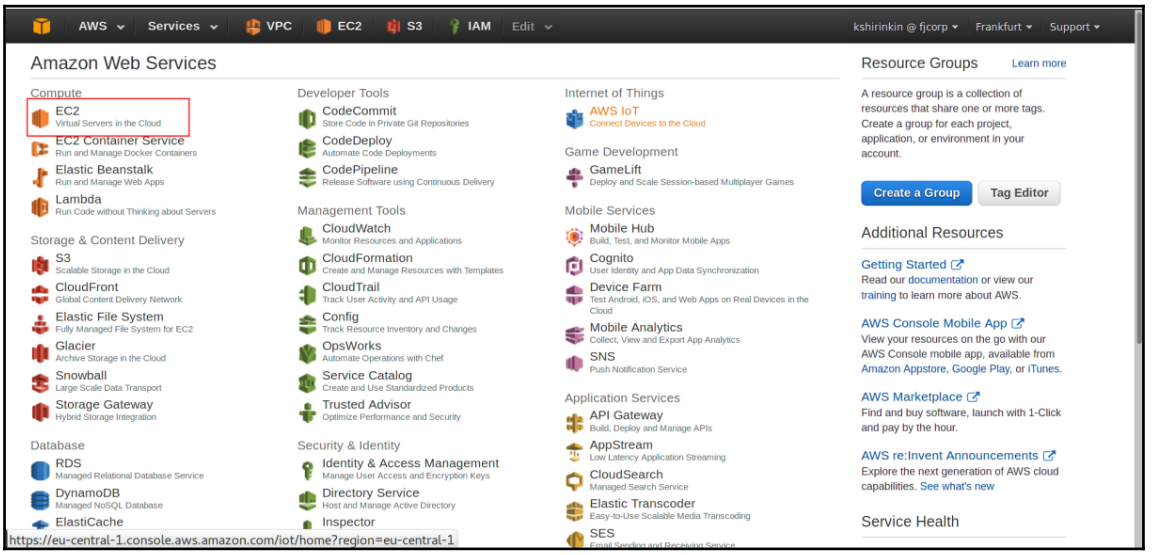
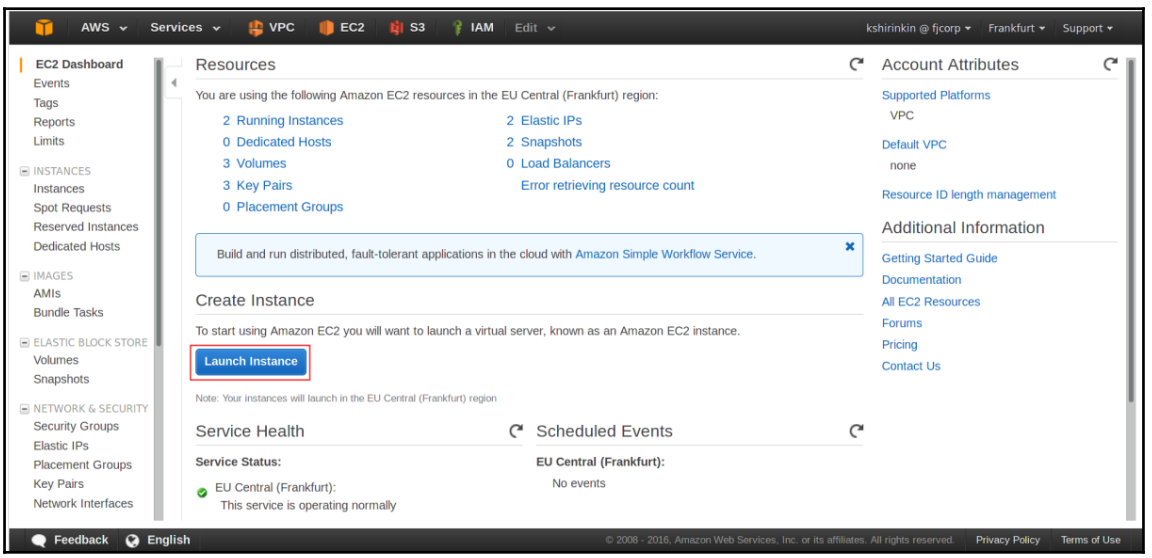
Graphics Bundle

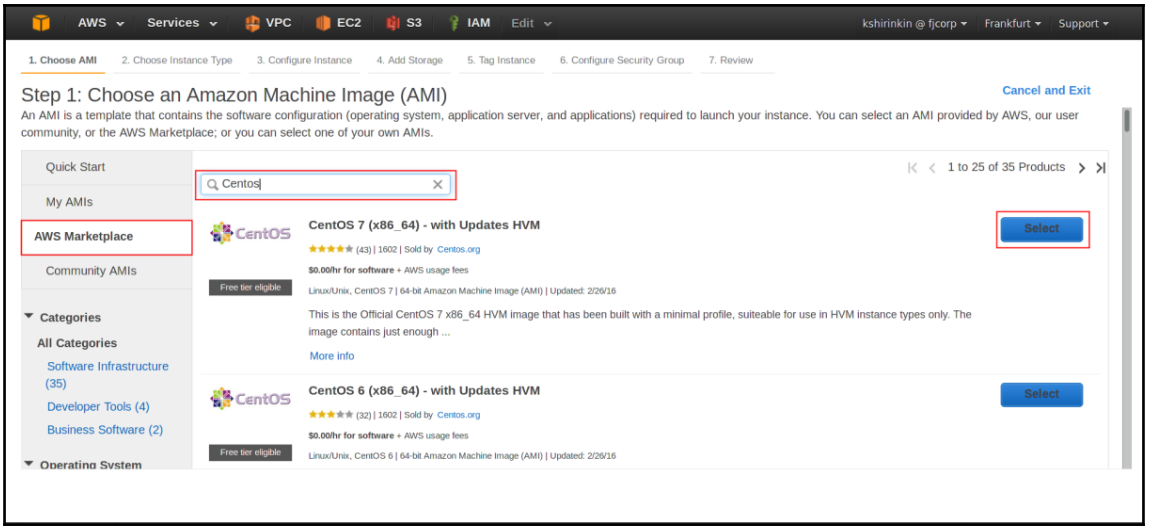
Chapter 1 : Infrastructure Automation

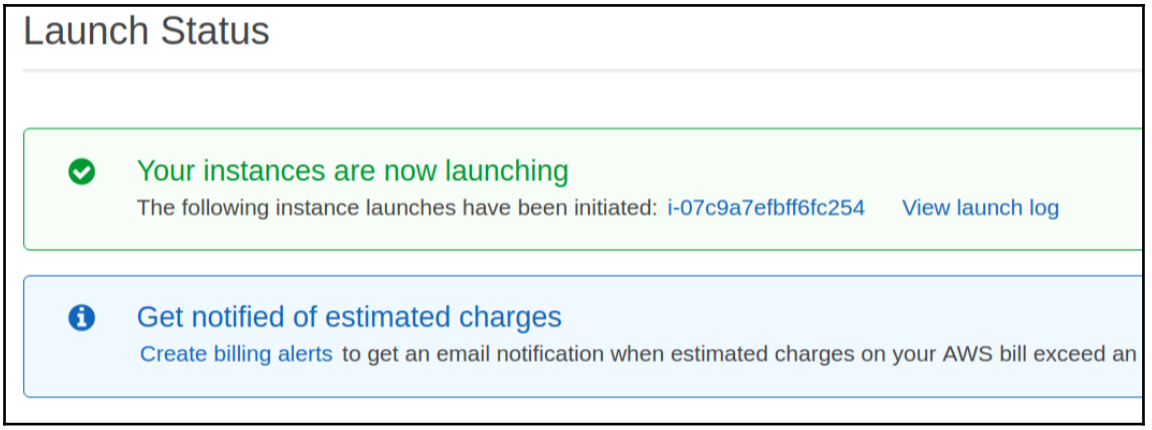


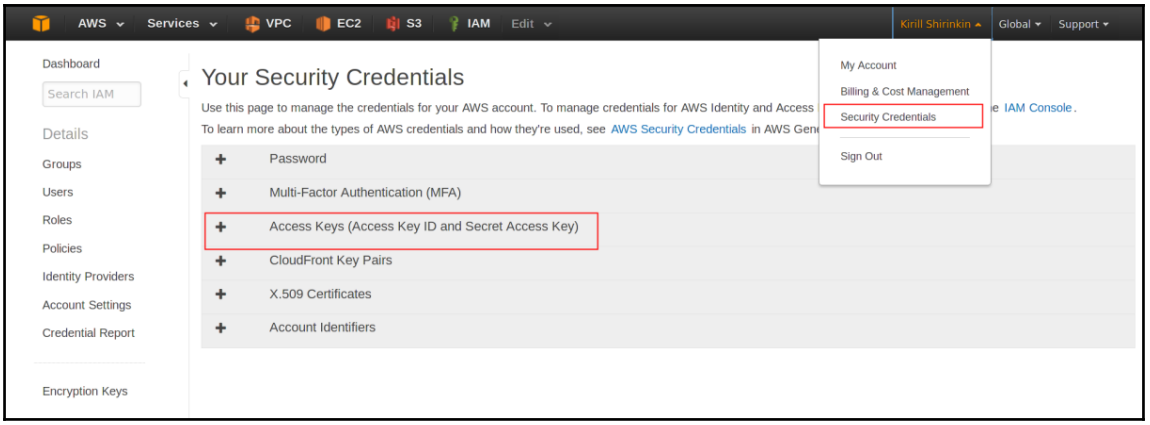
Chapter 2: Deploying First Server

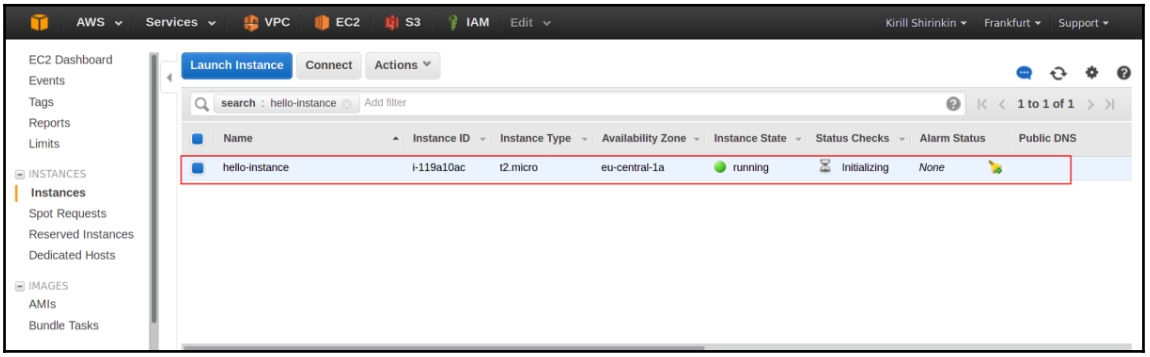




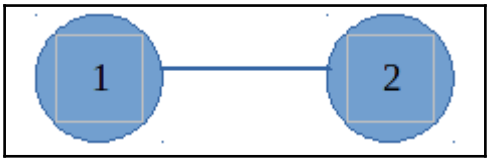

AWS
Services
VPC
EC2
S3
IAM
Edit
kshirinkin @ fjcorp
Frankfurt
Support
1. Choose AMI
2. Choose Instance Type
3. Configure Instance
4. Add Storage
5. Tag Instance
6. Configure Security Group
7. Review
Step 1: Choose an Amazon Machine Image (AMI)
Cancel and Exit
An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. You can select an AMI provided by AWS, our user community, or the AWS Marketplace; or you can select one of your own AMIs.
Quick Start
My AMIs
AWS Marketplace
Community AMIs
Categories
All Categories
Software Infrastructure (35)
Developer Tools (4)
Business Software (2)
Operating System
Centos
1 to 25 of 35 Products
CentOS 7 (x86_64) - with Updates HVM
(43) | 1602 | Sold by Centos.org
$0.00/hr for software + AWS usage fees
Free tier eligible
Linux/Unix, CentOS 7 | 64-bit Amazon Machine Image (AMI) | Updated: 2/26/16
This is the Official CentOS 7 x86_64 HVM image that has been built with a minimal profile, suiteable for use in HVM instance types only. The image contains just enough ...
More info
Select
CentOS 6 (x86_64) - with Updates HVM
(32) | 1602 | Sold by Centos.org
$0.00/hr for software + AWS usage fees
Free tier eligible
Linux/Unix, CentOS 6 | 64-bit Amazon Machine Image (AMI) | Updated: 2/26/16
Select

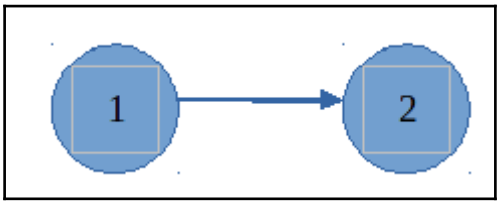

Launch Status
Your instances are now launching
The following instance launches have been initiated: i-07c9a7efbff6fc254
View launch log
Get notified of estimated charges
Create billing alerts to get an email notification when estimated charges on your AWS bill exceed an

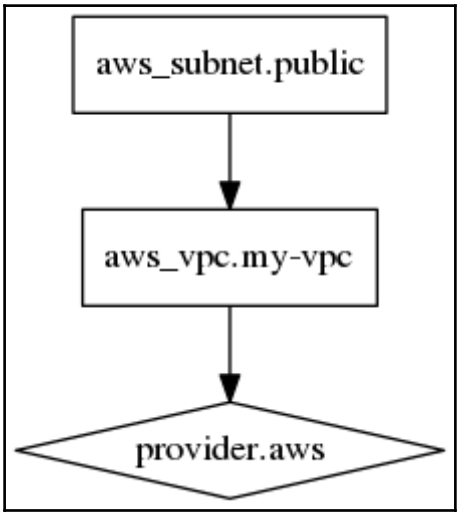

AWS
Services
VPC
EC2
S3
IAM
Edit
Kirill Shirinkin
Global
Support
Dashboard
Search IAM
Details
Groups
Users
Roles
Policies
Identity Providers
Account Settings
Credential Report
Encryption Keys
Your Security Credentials
Use this page to manage the credentials for your AWS account. To manage credentials for AWS Identity and Access
IAM Console.
To learn more about the types of AWS credentials and how they're used, see AWS Security Credentials in AWS Gen
My Account
Billing & Cost Management
Security Credentials
Sign Out
Password
Multi-Factor Authentication (MFA)
Access Keys (Access Key ID and Secret Access Key)
CloudFront Key Pairs
X.509 Certificates
Account Identifiers

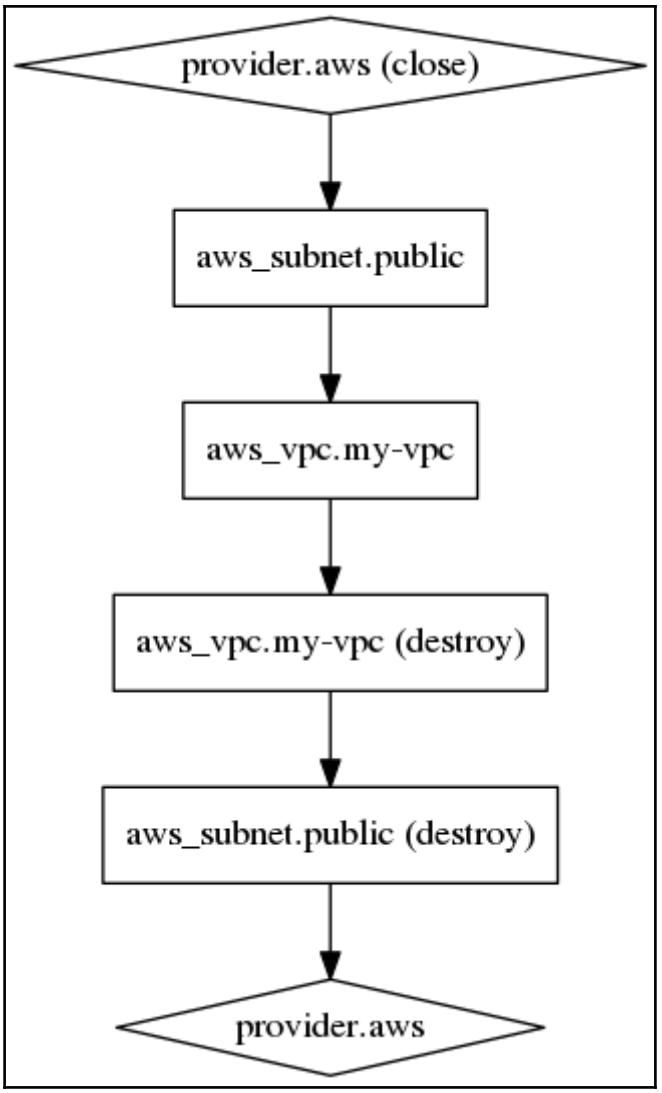

AWS
Services
VPC
EC2
S3
IAM
Edit
Kirill Shirinkin
Frankfurt
Support
EC2 Dashboard
Events
Tags
Reports
Limits
INSTANCES
Instances
Spot Requests
Reserved Instances
Dedicated Hosts
IMAGES
AMIs
Bundle Tasks
Launch Instance
Connect
Actions
search : hello-instance
Add filter
1 to 1 of 1
Name
Instance ID
Instance Type
Availability Zone
Instance State
Status Checks
Alarm Status
Public DNS
hello-instance
i-119a10ac
t2.micro
eu-central-1a
running
Initializing
None

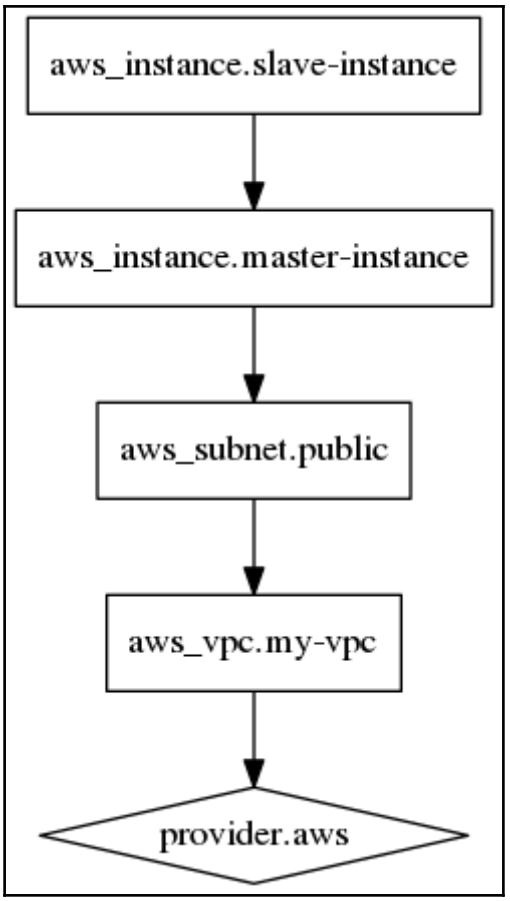
Chapter 3: Resource Dependencies and Modules

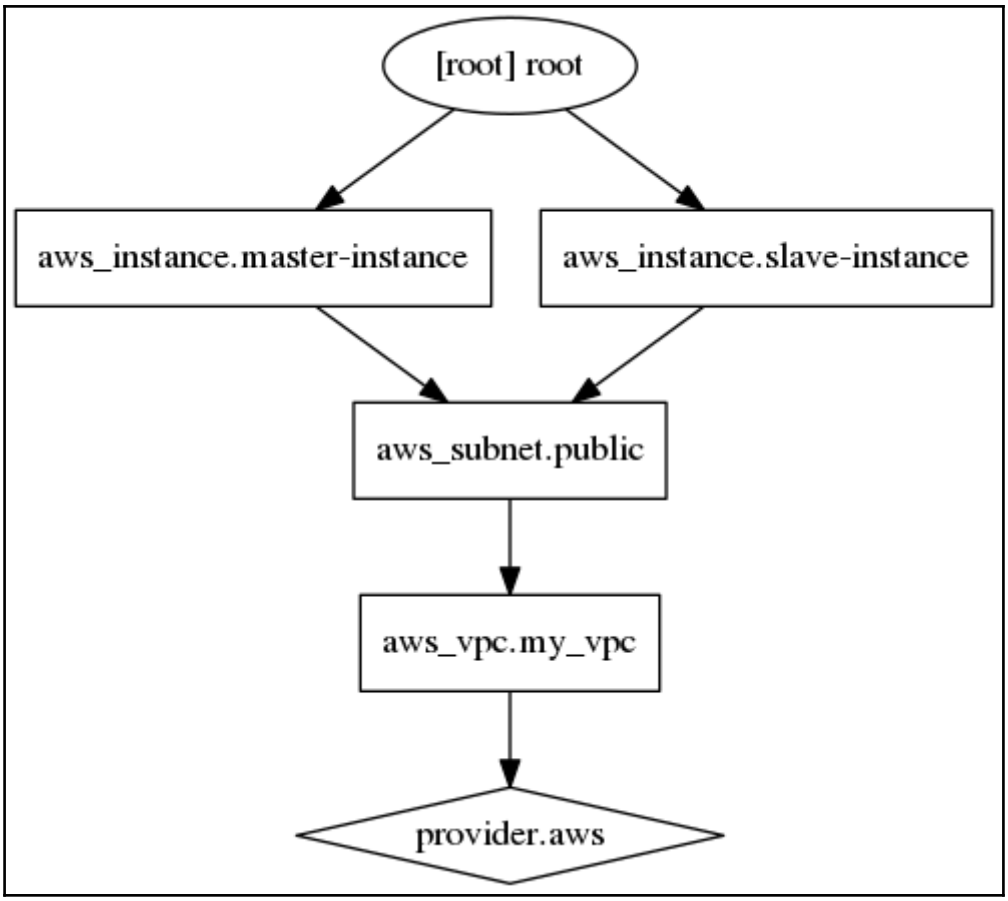


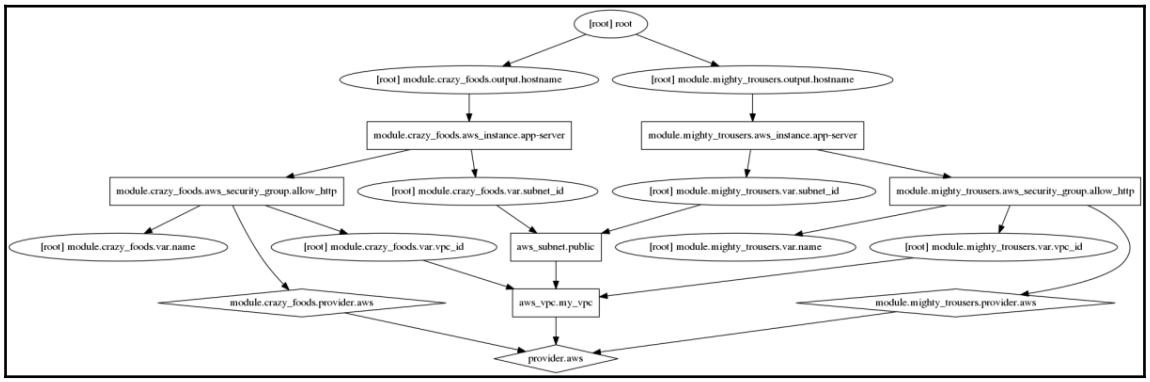


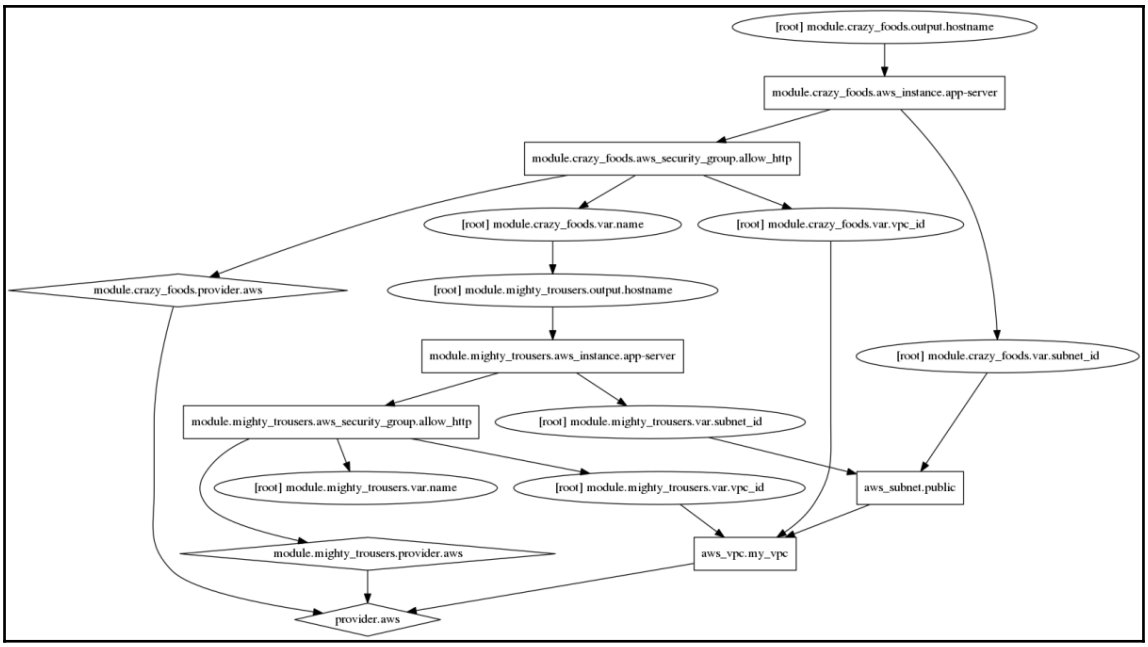



provider.aws (close)
aws_subnet.public
aws_vpc.my-vpc
aws_vpc.my-vpc (destroy)
aws_subnet.public (destroy)
provider.aws

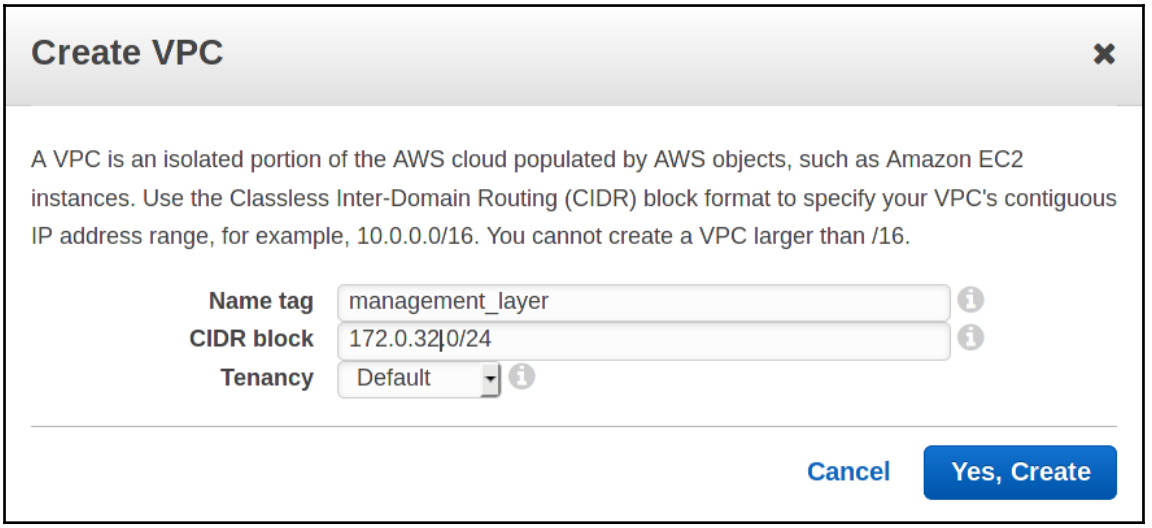

aws_instance.slave-instance
aws_instance.master-instance
aws_subnet.public
aws_vpc.my-vpc
provider.aws

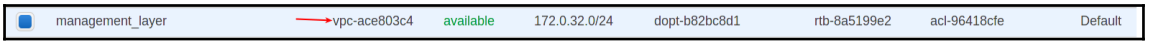

[root] root
aws_instance.master-instance
aws_instance.slave-instance
aws_subnet.public
aws_vpc.my_vpc
provider.aws


[root] root
[root] module.crazy_foods.output.hostname
[root] module.mighty_trousers.output.hostname
module.crazy_foods.aws_instance.app-server
module.mighty_trousers.aws_instance.app-server
module.crazy_foods.aws_security_group.allow_http
[root] module.crazy_foods.var.subnet_id
[root] module.mighty_trousers.var.subnet_id
module.mighty_trousers.aws_security_group.allow_http
[root] module.crazy_foods.var.name
[root] module.crazy_foods.var.vpc_id
aws_subnet.public
[root] module.mighty_trousers.var.name
[root] module.mighty_trousers.var.vpc_id
module.crazy_foods.provider.aws
aws_vpc.my_vpc
module.mighty_trousers.provider.aws
provider.aws

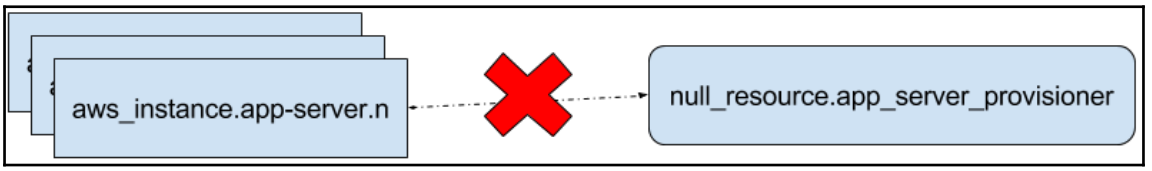

[root] module.crazy_foods.output.hostname
module.crazy_foods.aws_instance.app-server
module.crazy_foods.aws_security_group.allow_http
[root] module.crazy_foods.var.name
[root] module.crazy_foods.var.vpc_id
module.crazy_foods.provider.aws
[root] module.mighty_trousers.output.hostname
module.mighty_trousers.aws_instance.app-server
[root] module.crazy_foods.var.subnet_id
module.mighty_trousers.aws_security_group.allow_http
[root] module.mighty_trousers.var.subnet_id
[root] module.mighty_trousers.var.name
[root] module.mighty_trousers.var.vpc_id
aws_subnet.public
module.mighty_trousers.provider.aws
aws_vpc.my_vpc
provider.aws

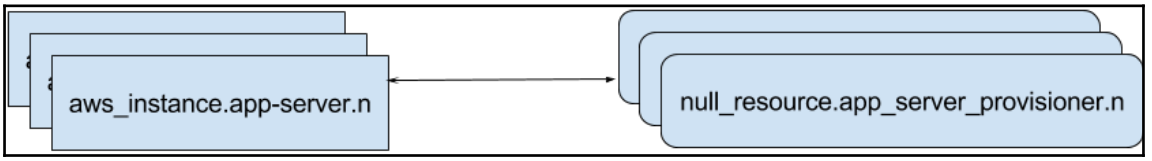
Chapter 4: Storing and Supplying Configuration

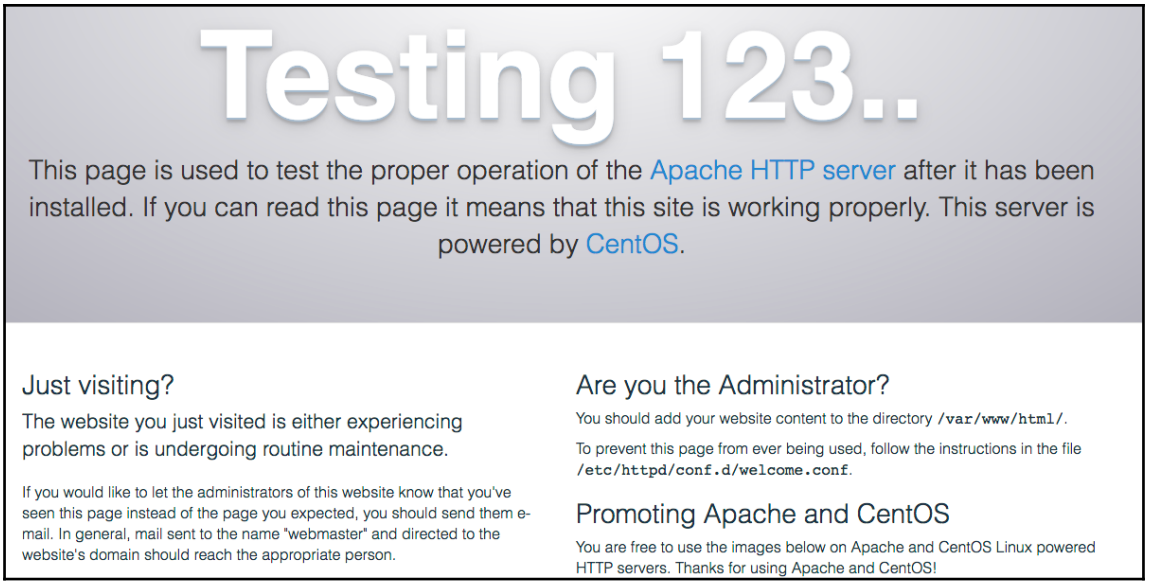


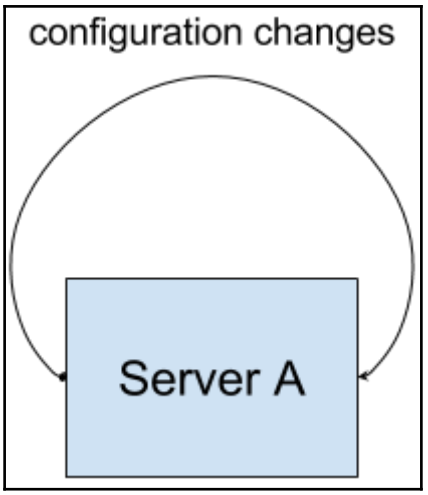


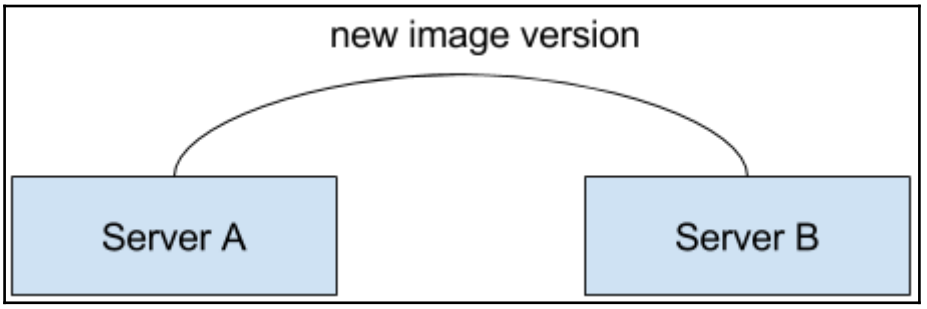
Chapter 6: Scaling and Updating Infrastructure

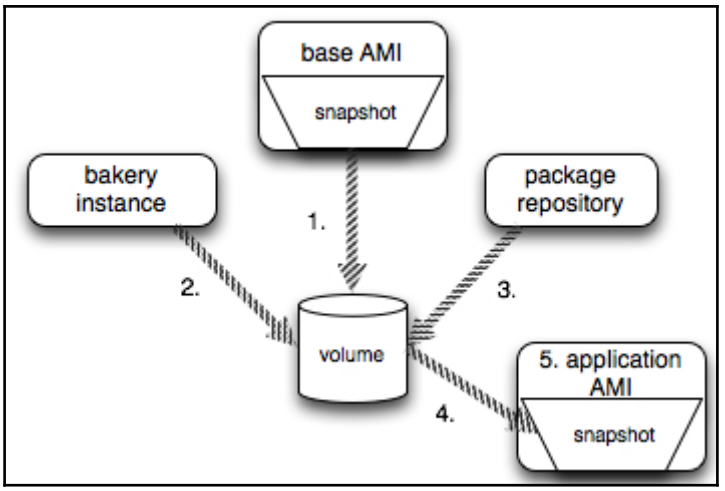


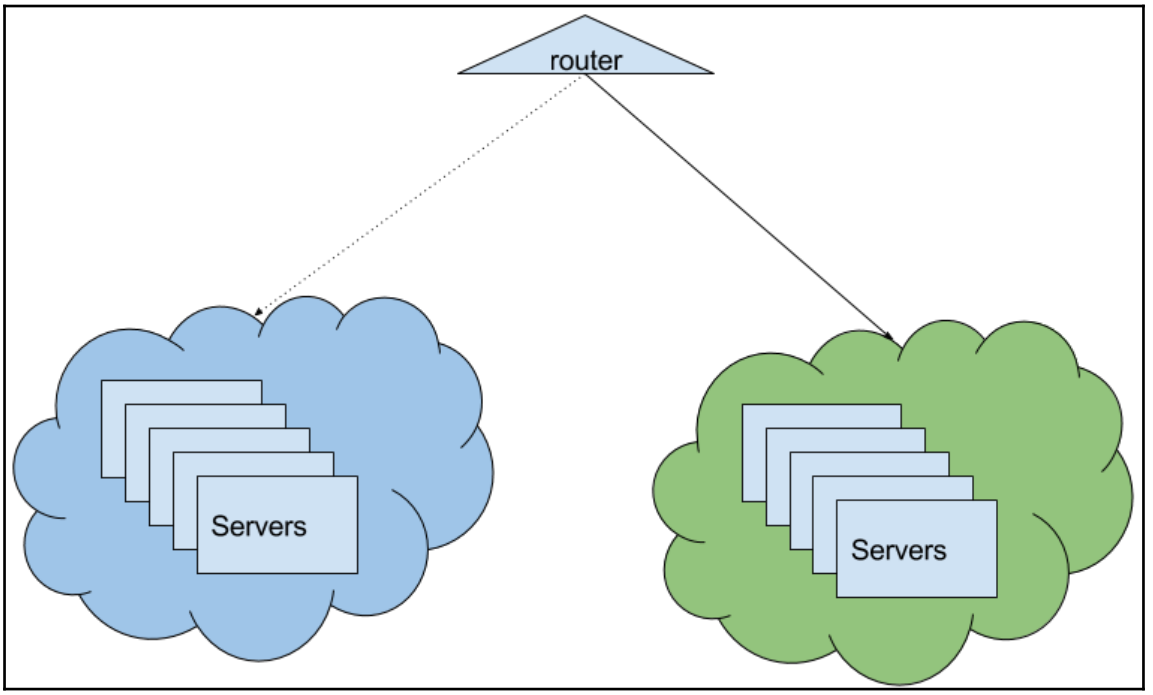


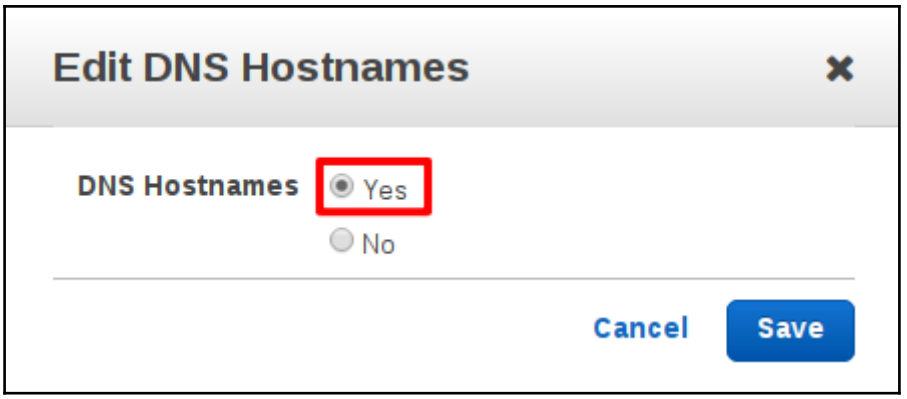


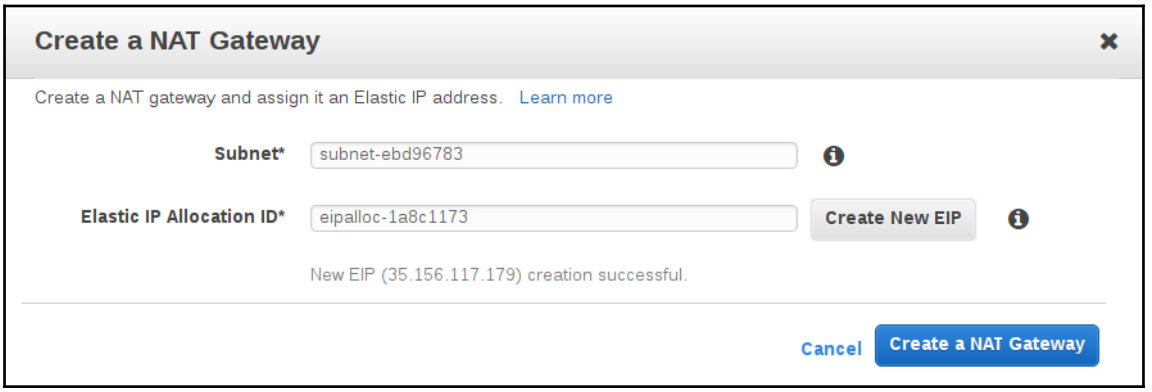

configuration changes
Server A

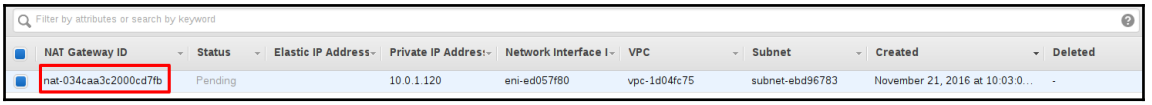

new image version
Server A
Server B


base AMI
snapshot
bakery instance
package repository
1.
2.
3.
volume
4.
5. application AMI
snapshot

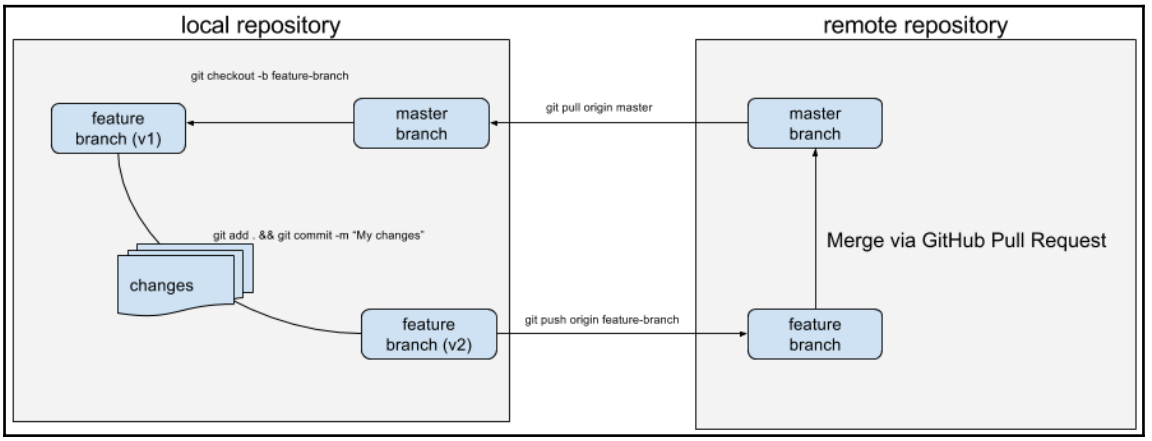

router
Servers
Servers

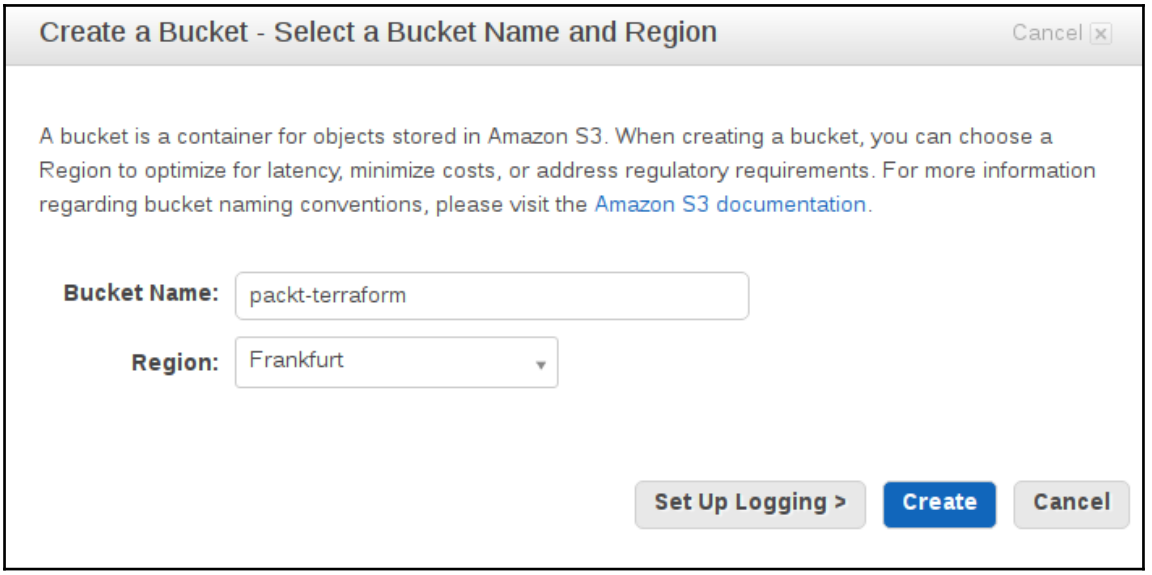

Edit DNS Hostnames
DNS Hostnames
Yes
No
Cancel
Save

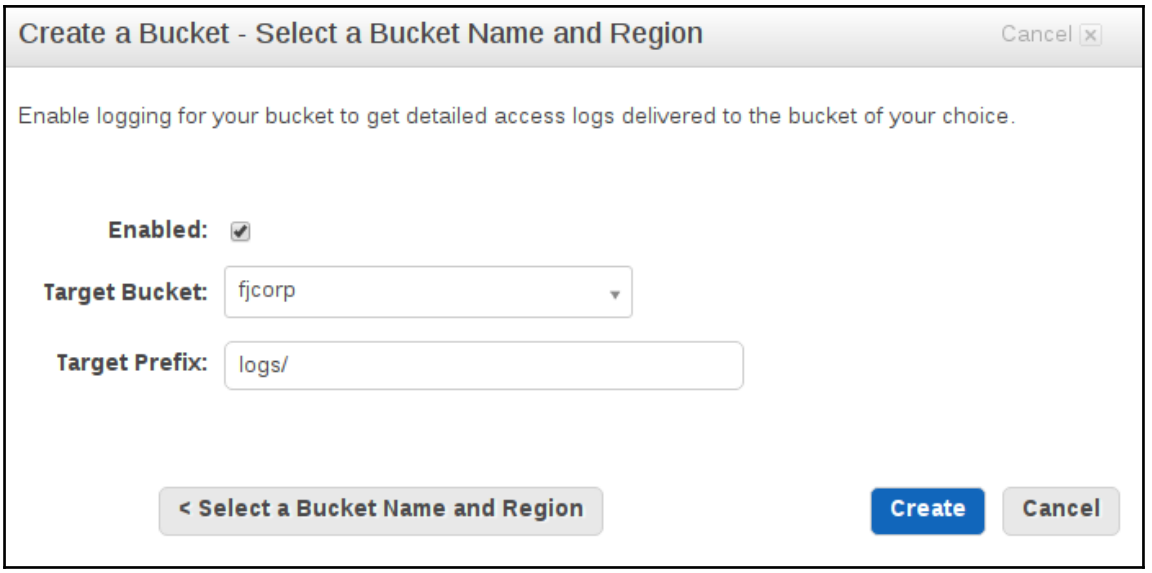

Create a NAT Gateway
Create a NAT gateway and assign it an Elastic IP address. Learn more
Subnet*
subnet-ebd96783
Elastic IP Allocation ID*
eipalloc-1a8c1173
Create New EIP
New EIP (35.156.117.179) creation successful.
Cancel
Create a NAT Gateway

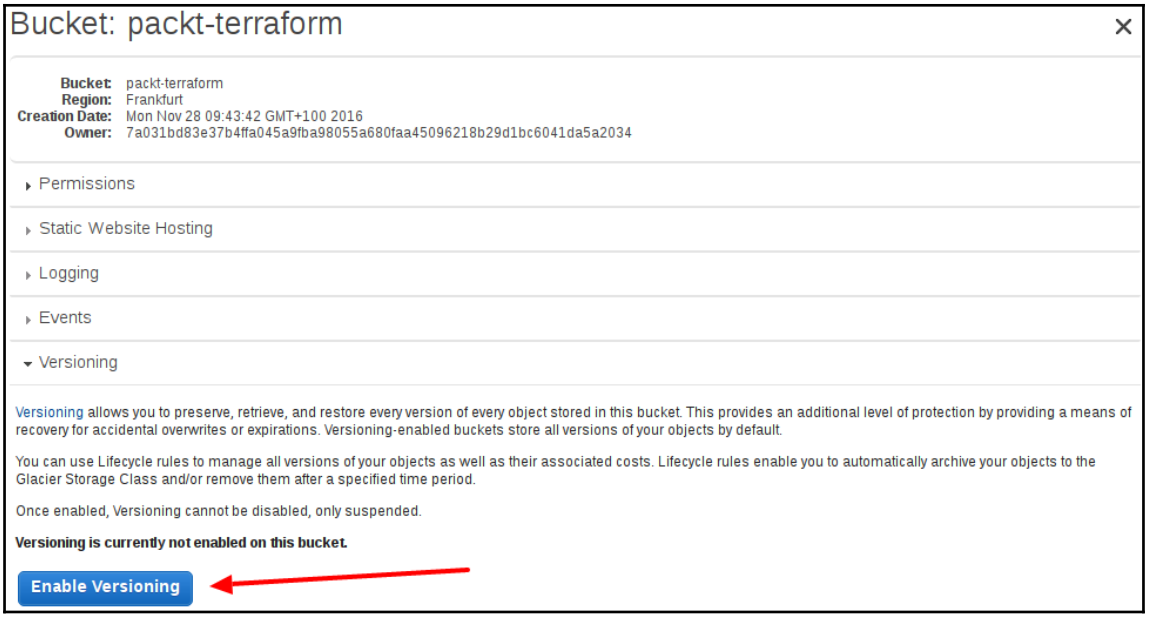

Filter by attributes or search by keyword
NAT Gateway ID
Status
Elastic IP Address
Private IP Address
Network Interface I
VPC
Subnet
Created
Deleted
nat-034caa3c2000cd7fb
Pending
10.0.1.120
eni-ed057f80
vpc-1d04fc75
subnet-ebd96783
November 21, 2016 at 10:03:0...
-

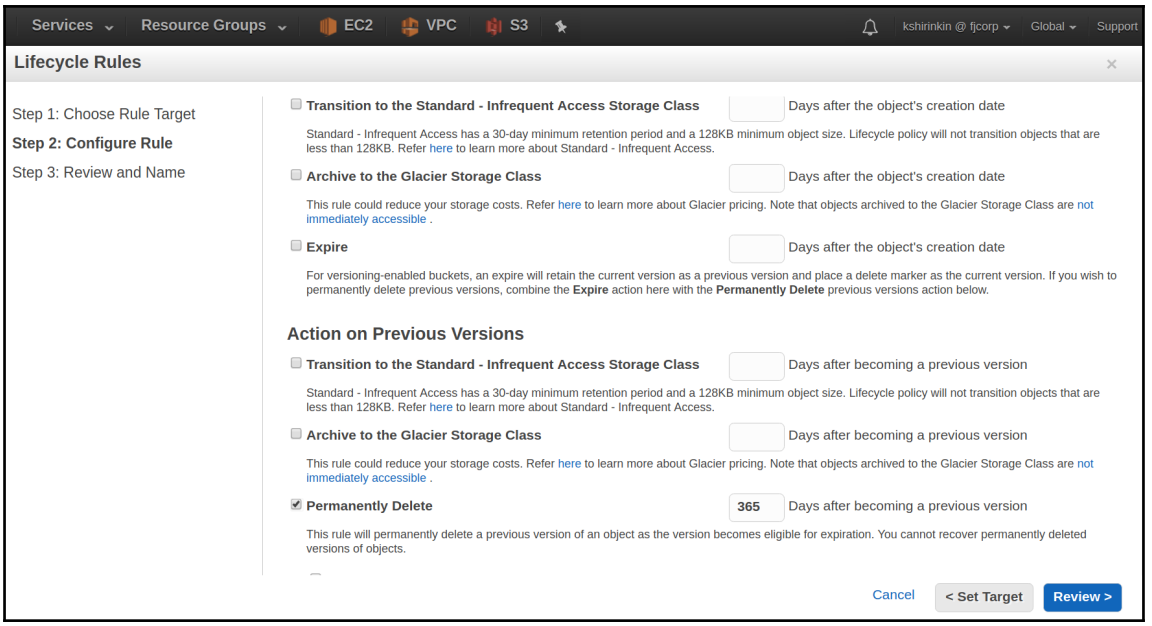
Chapter 7: Collaborative Infrastructure

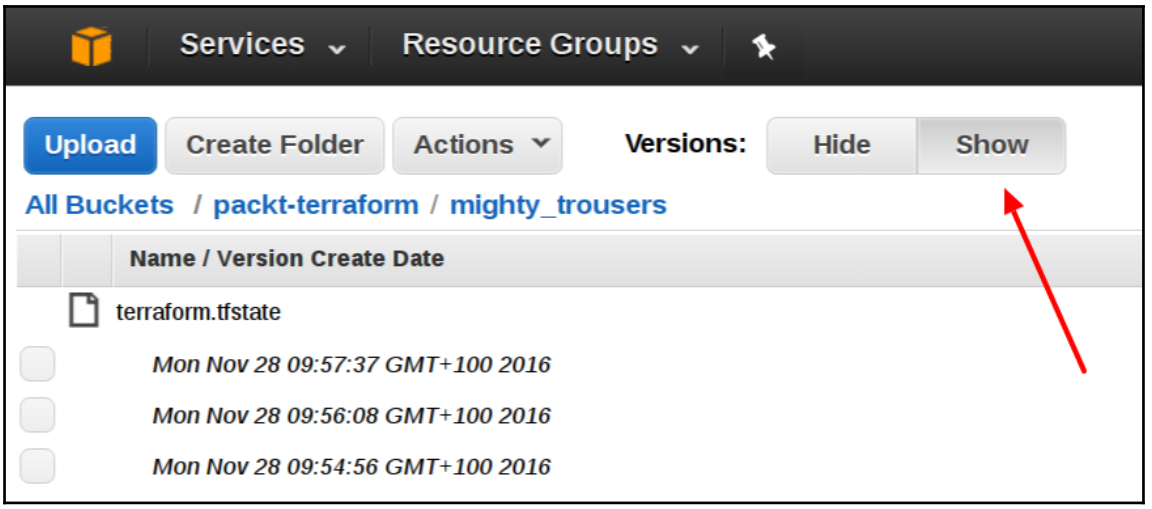


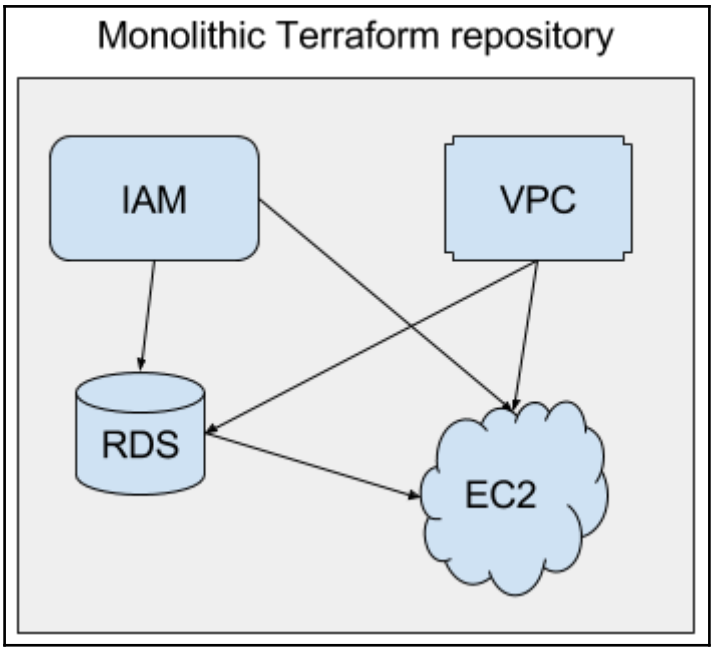


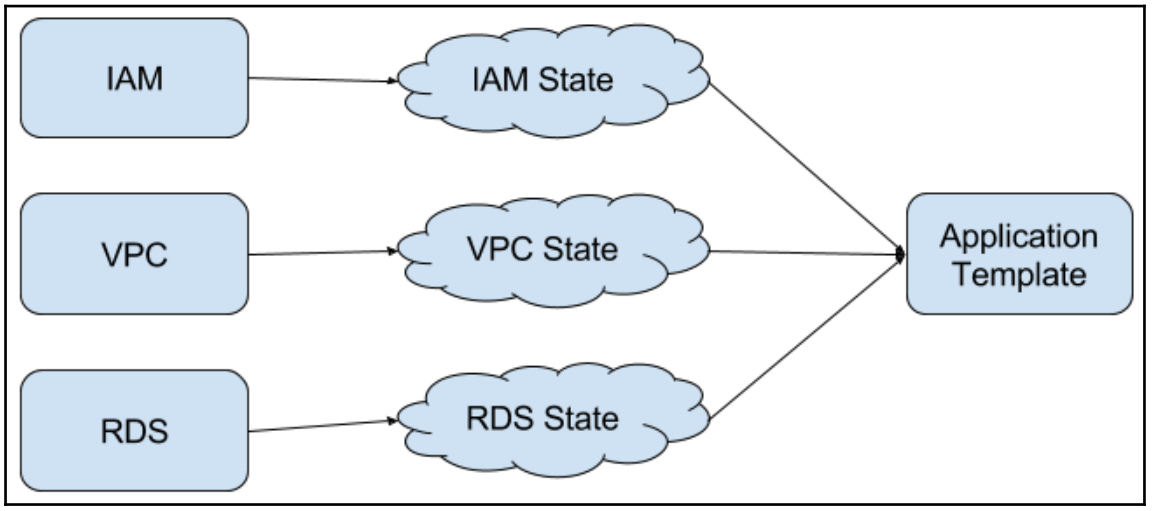

Create a Bucket - Select a Bucket Name and Region
Cancel
Enable logging for your bucket to get detailed access logs delivered to the bucket of your choice.
Enabled:
Target Bucket:
fjcorp
Target Prefix:
logs/
< Select a Bucket Name and Region
Create
Cancel

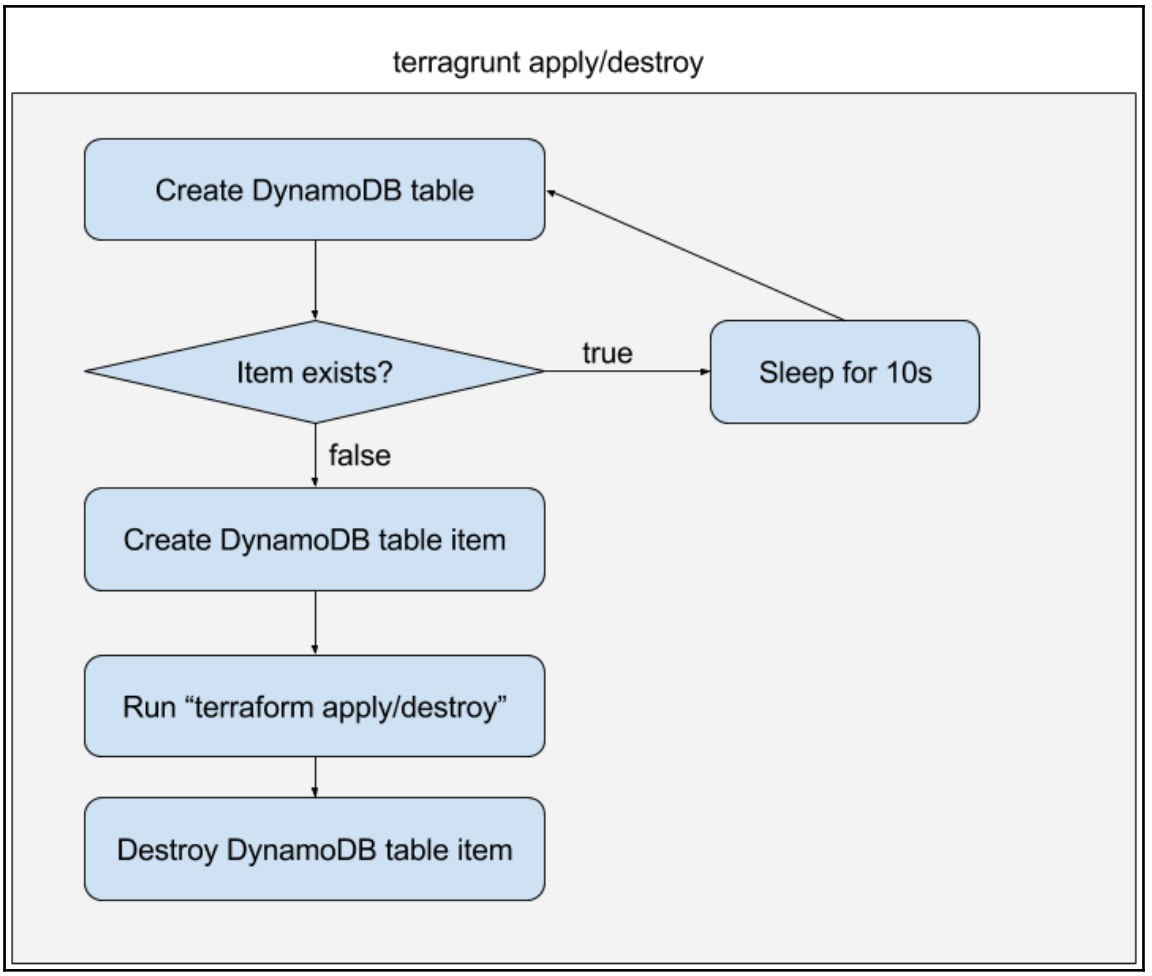

Bucket: packt-terraform
Bucket: packt-terraform
Region: Frankfurt
Creation Date: Mon Nov 28 09:43:42 GMT+100 2016
Owner: 7a031bd83e37b4ffa045a9fba98055a680faa45096218b29d1bc6041da5a2034
Permissions
Static Website Hosting
Logging
Events
Versioning
Versioning allows you to preserve, retrieve, and restore every version of every object stored in this bucket. This provides an additional level of protection by providing a means of recovery for accidental overwrites or expirations. Versioning-enabled buckets store all versions of your objects by default.
You can use Lifecycle rules to manage all versions of your objects as well as their associated costs. Lifecycle rules enable you to automatically archive your objects to the Glacier Storage Class and/or remove them after a specified time period.
Once enabled, Versioning cannot be disabled, only suspended.
Versioning is currently not enabled on this bucket.
Enable Versioning

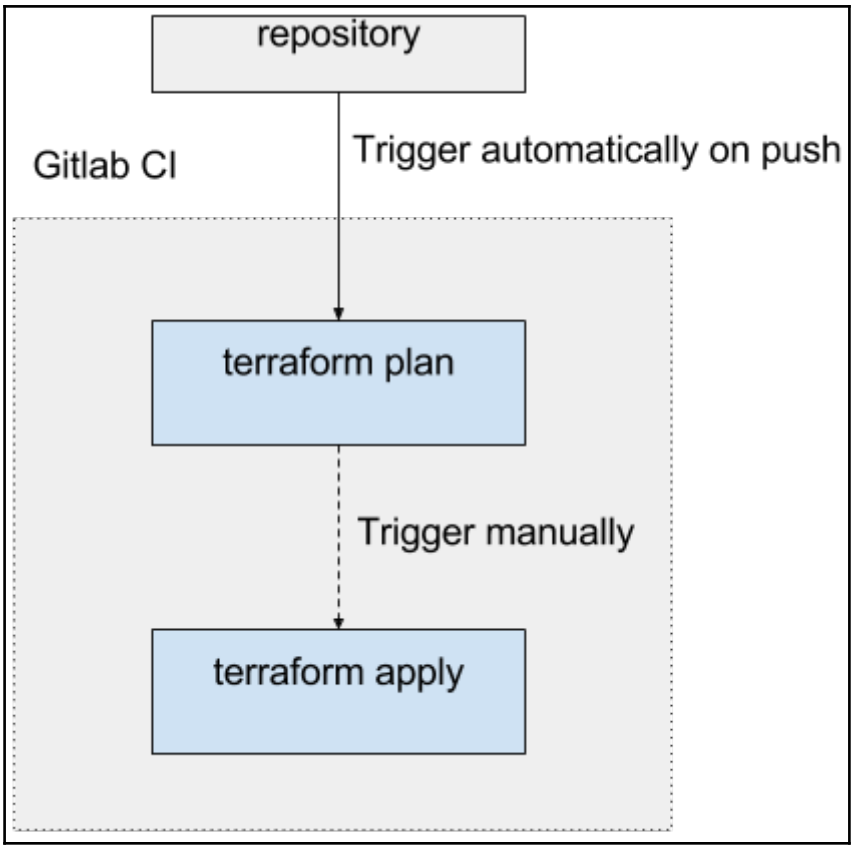

Services
Resource Groups
EC2
VPC
S3
kshirinkin @ fjcorp
Global
Support
Lifecycle Rules
Step 1: Choose Rule Target
Step 2: Configure Rule
Step 3: Review and Name
Transition to the Standard - Infrequent Access Storage Class
Days after the object's creation date
Standard - Infrequent Access has a 30-day minimum retention period and a 128KB minimum object size. Lifecycle policy will not transition objects that are less than 128KB. Refer here to learn more about Standard - Infrequent Access.
Archive to the Glacier Storage Class
Days after the object's creation date
This rule could reduce your storage costs. Refer here to learn more about Glacier pricing. Note that objects archived to the Glacier Storage Class are not immediately accessible .
Expire
Days after the object's creation date
For versioning-enabled buckets, an expire will retain the current version as a previous version and place a delete marker as the current version. If you wish to permanently delete previous versions, combine the Expire action here with the Permanently Delete previous versions action below.
Action on Previous Versions
Transition to the Standard - Infrequent Access Storage Class
Days after becoming a previous version
Standard - Infrequent Access has a 30-day minimum retention period and a 128KB minimum object size. Lifecycle policy will not transition objects that are less than 128KB. Refer here to learn more about Standard - Infrequent Access.
Archive to the Glacier Storage Class
Days after becoming a previous version
This rule could reduce your storage costs. Refer here to learn more about Glacier pricing. Note that objects archived to the Glacier Storage Class are not immediately accessible .
Permanently Delete
365
Days after becoming a previous version
This rule will permanently delete a previous version of an object as the version becomes eligible for expiration. You cannot recover permanently deleted versions of objects.
Cancel
< Set Target
Review >


Services
Resource Groups
Upload
Create Folder
Actions
Versions:
Hide
Show
All Buckets / packt-terraform / mighty_trousers
Name / Version Create Date
terraform.tfstate
Mon Nov 28 09:57:37 GMT+100 2016
Mon Nov 28 09:56:08 GMT+100 2016
Mon Nov 28 09:54:56 GMT+100 2016


Monolithic Terraform repository
IAM
VPC
RDS
EC2


IAM
IAM State
VPC
VPC State
Application Template
RDS
RDS State


terragrunt apply/destroy
Create DynamoDB table
Item exists?
true
Sleep for 10s
false
Create DynamoDB table item
Run “terraform apply/destroy”
Destroy DynamoDB table item



Details Permissions Review

Set user details

You can add multiple users at once with the same access type and permissions. Learn more

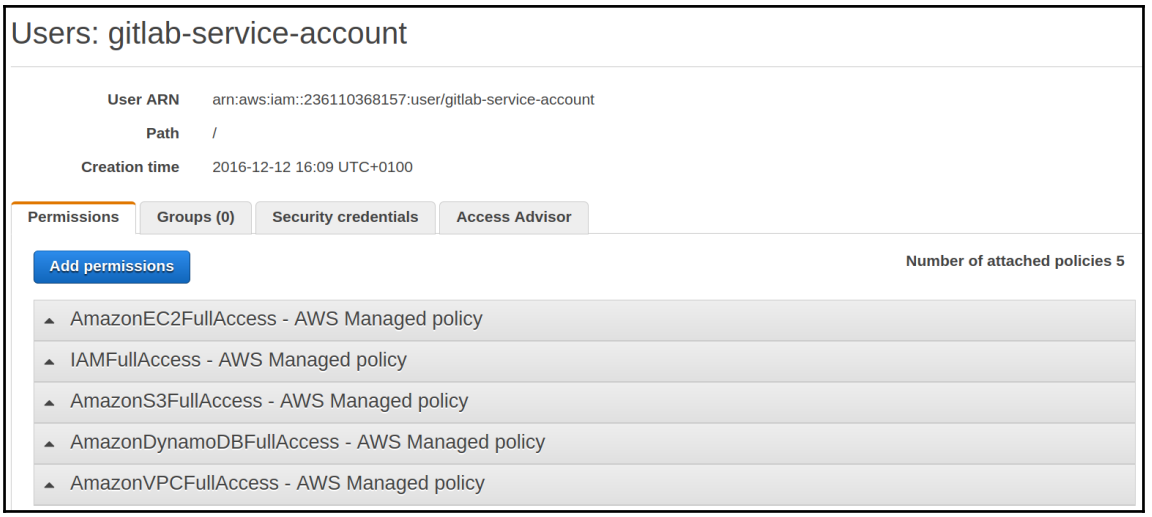
User name* gitlab-service-account

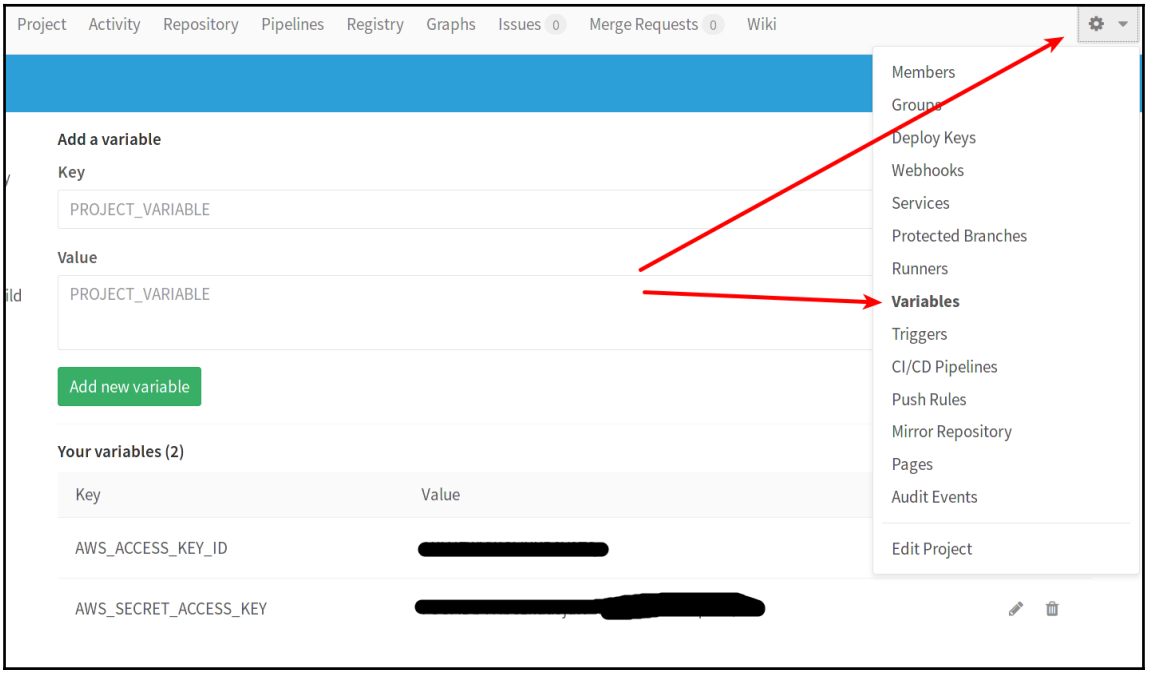
Add another user

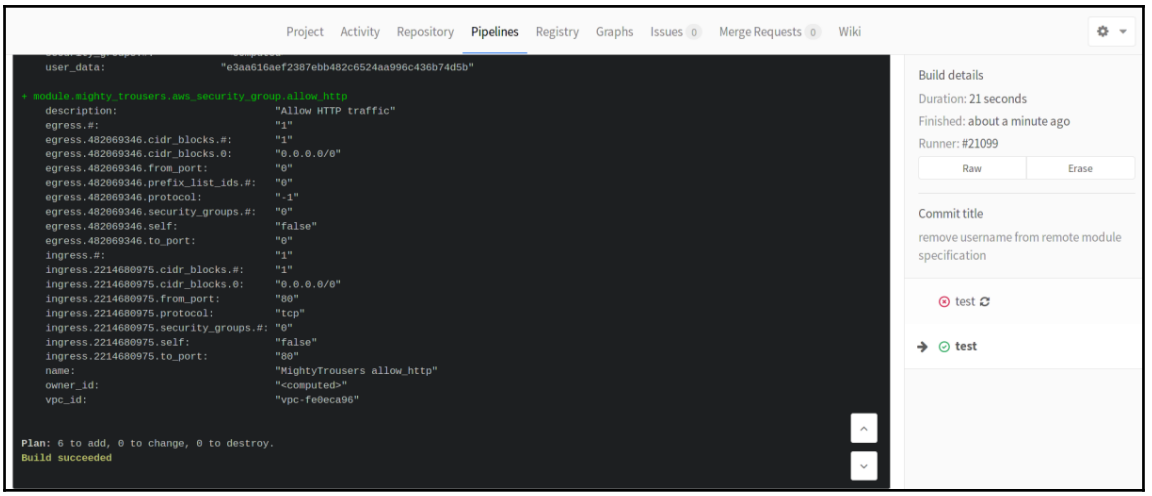
Select AWS access type

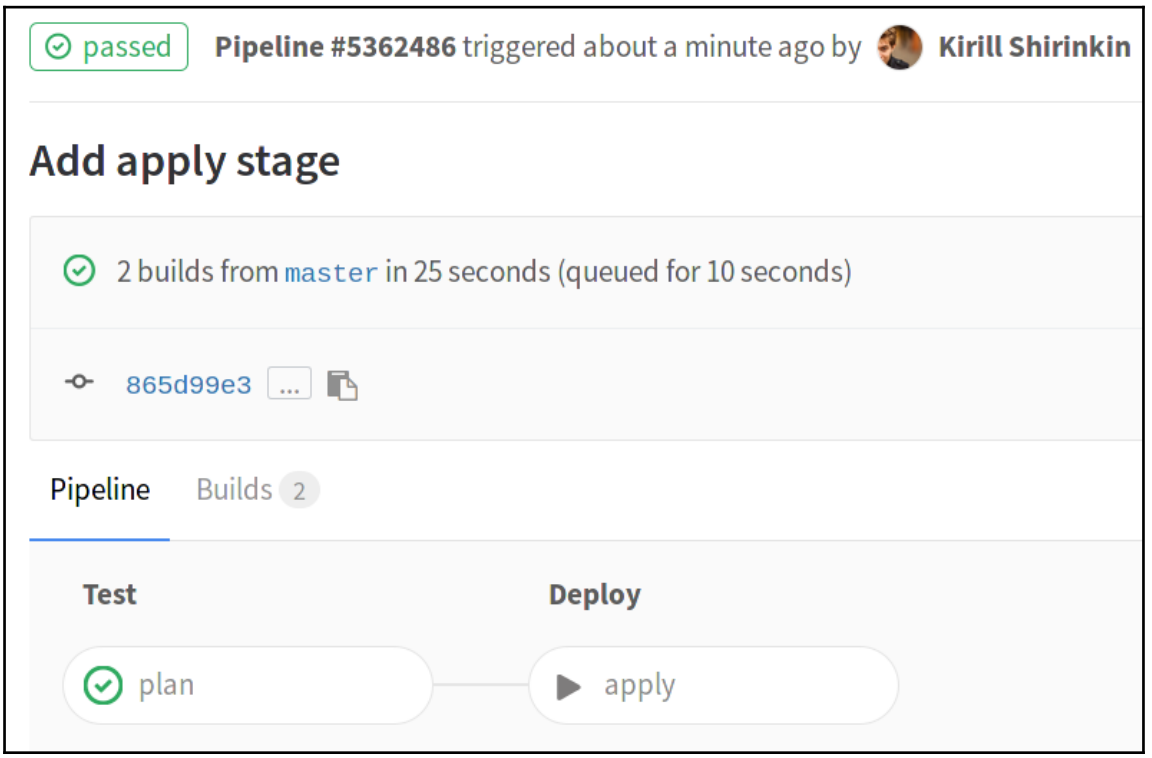
Select how these users will access AWS. Access keys and autogenerated passwords are provided in the last step. Learn more

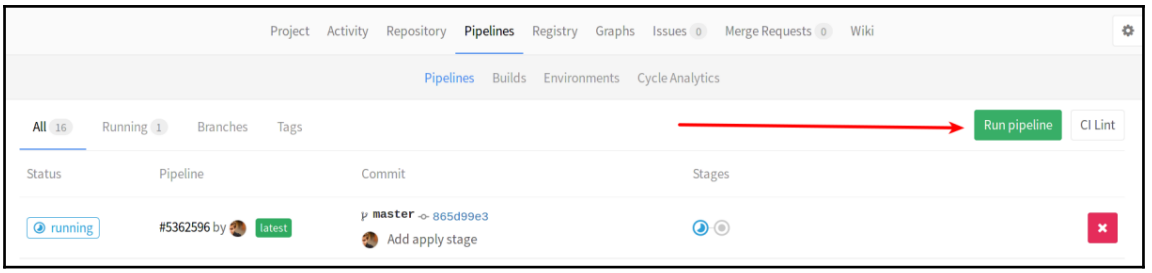
Access type* ☑ **Programmatic access**
Enables an **access key ID** and **secret access key** for the AWS API, CLI, SDK, and other development tools.
☐ **AWS Management Console access**
Enables a **password** that allows users to sign-in to the AWS Management Console.


Users: gitlab-service-account
User ARN
arn:aws:iam::236110368157:user/gitlab-service-account
Path
/
Creation time
2016-12-12 16:09 UTC+0100
Permissions
Groups (0)
Security credentials
Access Advisor
Add permissions
Number of attached policies 5
AmazonEC2FullAccess - AWS Managed policy
IAMFullAccess - AWS Managed policy
AmazonS3FullAccess - AWS Managed policy
AmazonDynamoDBFullAccess - AWS Managed policy
AmazonVPCFullAccess - AWS Managed policy


Project
Activity
Repository
Pipelines
Registry
Graphs
Issues 0
Merge Requests 0
Wiki
Members
Groups
Deploy Keys
Webhooks
Services
Protected Branches
Runners
Variables
Triggers
CI/CD Pipelines
Push Rules
Mirror Repository
Pages
Audit Events
Edit Project
Add a variable
Key
PROJECT_VARIABLE
Value
PROJECT_VARIABLE
Add new variable
Your variables (2)
Key
Value
AWS_ACCESS_KEY_ID
AWS_SECRET_ACCESS_KEY


Project Activity Repository Pipelines Registry Graphs Issues 0 Merge Requests 0 Wiki
user_data: "e3aa616aef2387ebb482c6524aa996c436b74d5b"
+ module.mighty_trousers.aws_security_group.allow_http
description: "Allow HTTP traffic"
egress.#: "1"
egress.482069346.cidr_blocks.#: "1"
egress.482069346.cidr_blocks.0: "0.0.0.0/0"
egress.482069346.from_port: "0"
egress.482069346.prefix_list_ids.#: "0"
egress.482069346.protocol: "-1"
egress.482069346.security_groups.#: "0"
egress.482069346.self: "false"
egress.482069346.to_port: "0"
ingress.#: "1"
ingress.2214680975.cidr_blocks.#: "1"
ingress.2214680975.cidr_blocks.0: "0.0.0.0/0"
ingress.2214680975.from_port: "80"
ingress.2214680975.protocol: "tcp"
ingress.2214680975.security_groups.#: "0"
ingress.2214680975.self: "false"
ingress.2214680975.to_port: "80"
name: "MightyTrousers allow_http"
owner_id: "<computed>"
vpc_id: "vpc-fe0eca96"
Plan: 6 to add, 0 to change, 0 to destroy.
Build succeeded
Build details
Duration: 21 seconds
Finished: about a minute ago
Runner: #21099
Raw
Erase
Commit title
remove username from remote module specification
test
test


passed
Pipeline #5362486 triggered about a minute ago by
Kirill Shirinkin
Add apply stage
2 builds from master in 25 seconds (queued for 10 seconds)
865d99e3
Pipeline
Builds 2
Test
Deploy
plan
apply


Project
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Repository
Pipelines
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Issues 0
Merge Requests 0
Wiki
Pipelines
Builds
Environments
Cycle Analytics
All 16
Running 1
Branches
Tags
Run pipeline
CI Lint
Status
Pipeline
Commit
Stages
running
#5362596 by
latest
master
865d99e3
Add apply stage