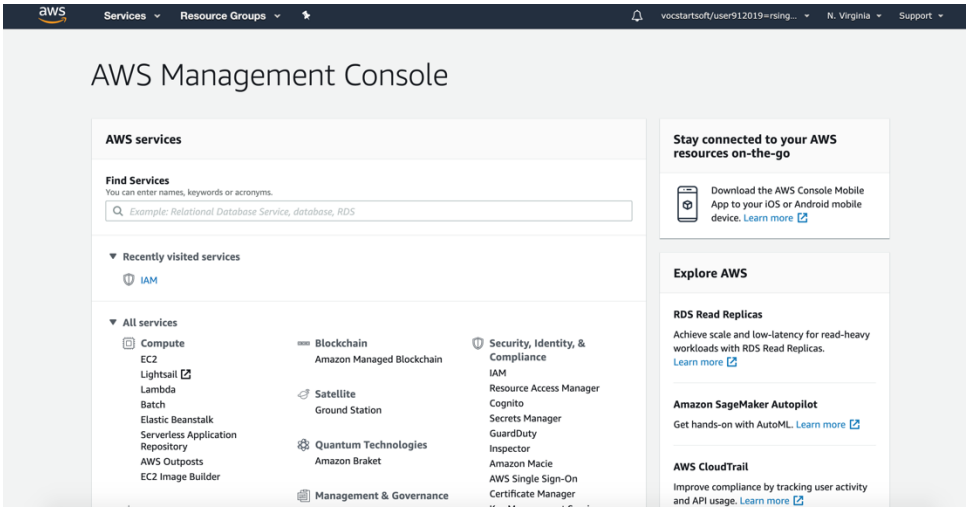
IST 615
Rashika Singh

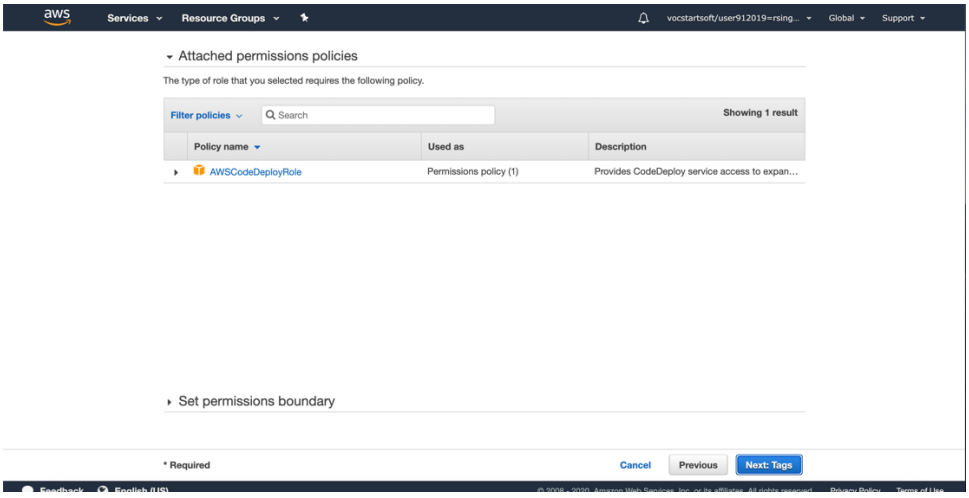
Lab- 1
Using AWS Services

1. Created IAM (Identity Access Management) roles:

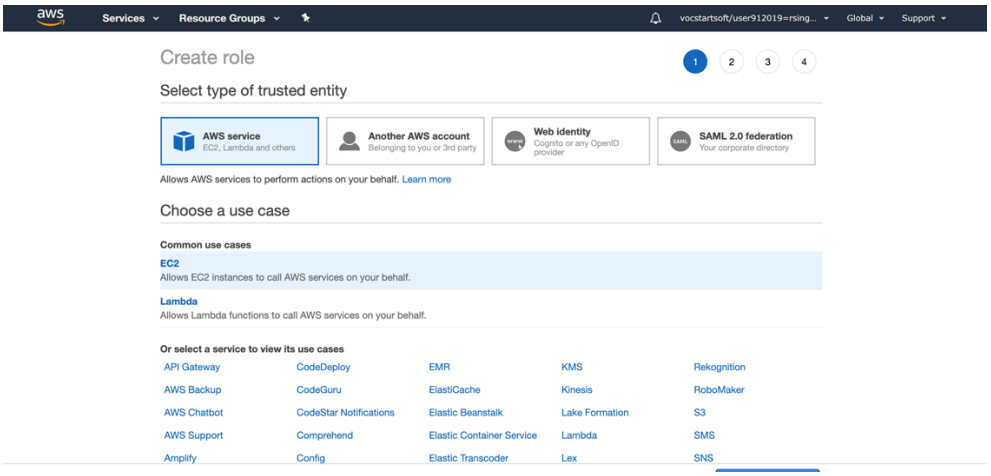
   Selected AWS IAM and then roles

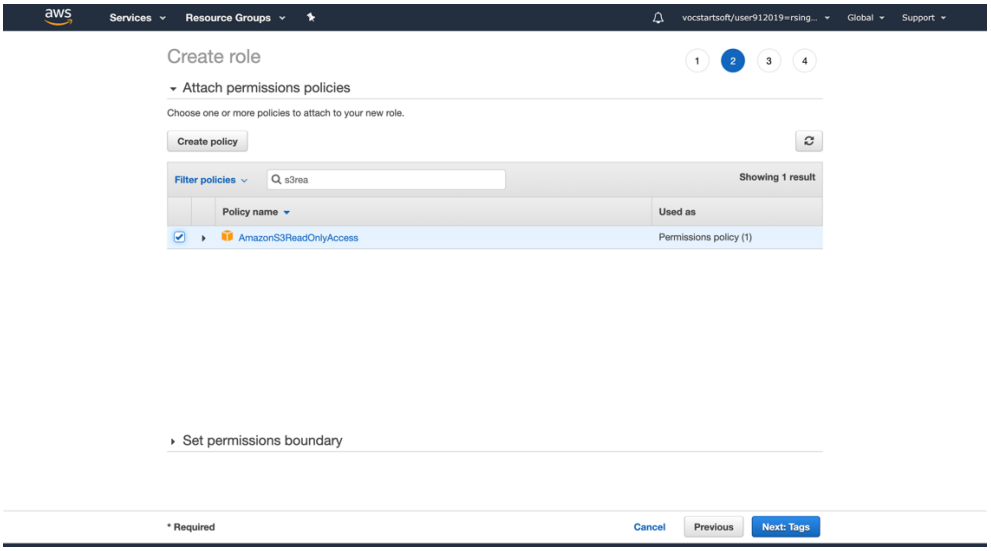


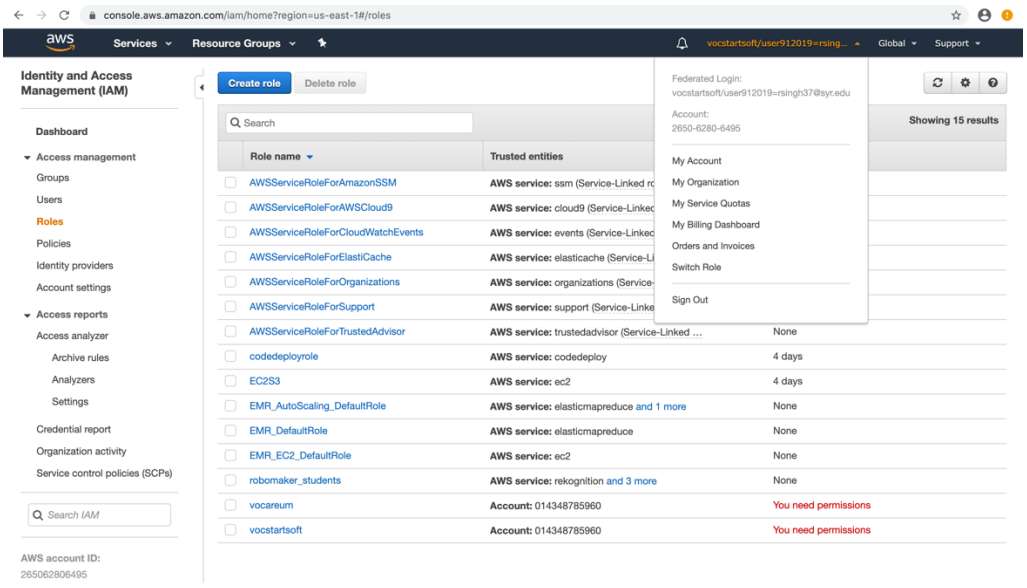
   a. Created CodeDeploy Service role



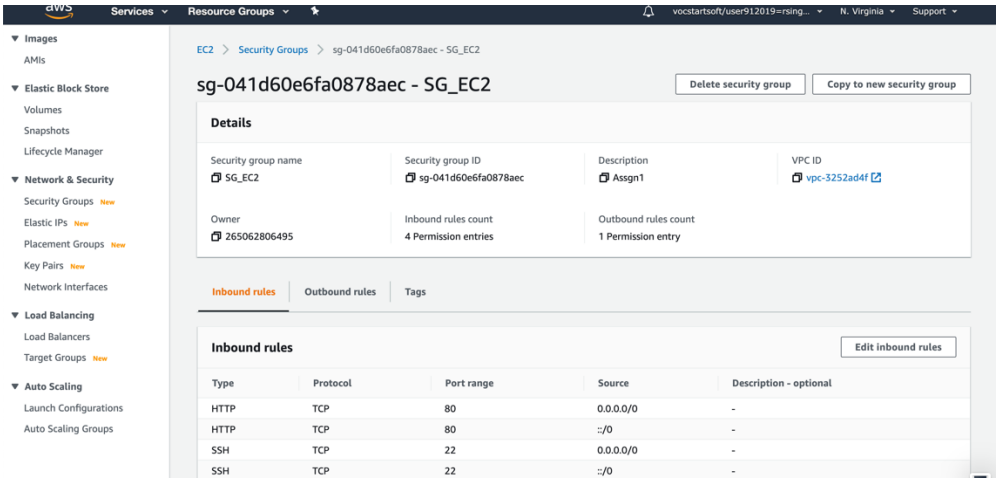
   b. Created EC2 Service Role


Services
Resource Groups
vocstartsoft/user912019=rsing...
Global
Support
Create role
1 2 3 4
Select type of trusted entity
AWS service
EC2, Lambda and others
Another AWS account
Belonging to you or 3rd party
Web identity
Cognito or any OpenID provider
SAML 2.0 federation
Your corporate directory
Allows AWS services to perform actions on your behalf. Learn more
Choose a use case
Common use cases
EC2
Allows EC2 instances to call AWS services on your behalf.
Lambda
Allows Lambda functions to call AWS services on your behalf.
Or select a service to view its use cases
API Gateway
AWS Backup
AWS Chatbot
AWS Support
Amplify
CodeDeploy
CodeGuru
CodeStar Notifications
Comprehend
Config
EMR
ElastiCache
Elastic Beanstalk
Elastic Container Service
Elastic Transcoder
KMS
Kinesis
Lake Formation
Lambda
Lex
Rekognition
RoboMaker
S3
SMS
SNS


Services
Resource Groups
vocstartsoft/user912019=rsing...
Global
Support
Create role
1 2 3 4
Attach permissions policies
Choose one or more policies to attach to your new role.
Create policy
Filter policies
s3rea
Showing 1 result
Policy name
Used as
AmazonS3ReadOnlyAccess
Permissions policy (1)
Set permissions boundary
* Required
Cancel
Previous
Next: Tags

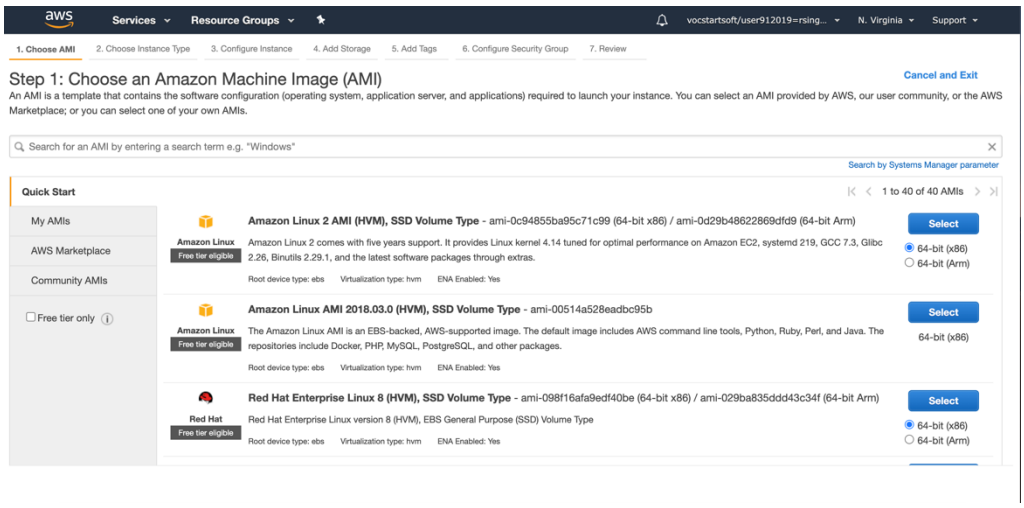

console.aws.amazon.com/iam/home?region=us-east-1#/roles
Services
Resource Groups
vocstartsoft/user912019=rsing...
Global
Support
Identity and Access Management (IAM)
Dashboard
Access management
Groups
Users
Roles
Policies
Identity providers
Account settings
Access reports
Access analyzer
Archive rules
Analyzers
Settings
Credential report
Organization activity
Service control policies (SCPs)
Search IAM
AWS account ID:
265062806495
Create role
Delete role
Search
Showing 15 results
Role name
Trusted entities
AWSServiceRoleForAmazonSSM
AWSServiceRoleForAWSCloud9
AWSServiceRoleForCloudWatchEvents
AWSServiceRoleForElastiCache
AWSServiceRoleForOrganizations
AWSServiceRoleForSupport
AWSServiceRoleForTrustedAdvisor
codedeployrole
EC2S3
EMR_AutoScaling_DefaultRole
EMR_DefaultRole
EMR_EC2_DefaultRole
robomaker_students
vocareum
vocstartsoft
Federated Login:
vocstartsoft/user912019=rsingh37@syr.edu
Account:
2650-6280-6495
My Account
My Organization
My Service Quotas
My Billing Dashboard
Orders and Invoices
Switch Role
Sign Out
None
4 days
4 days
None
None
None
None
You need permissions
You need permissions

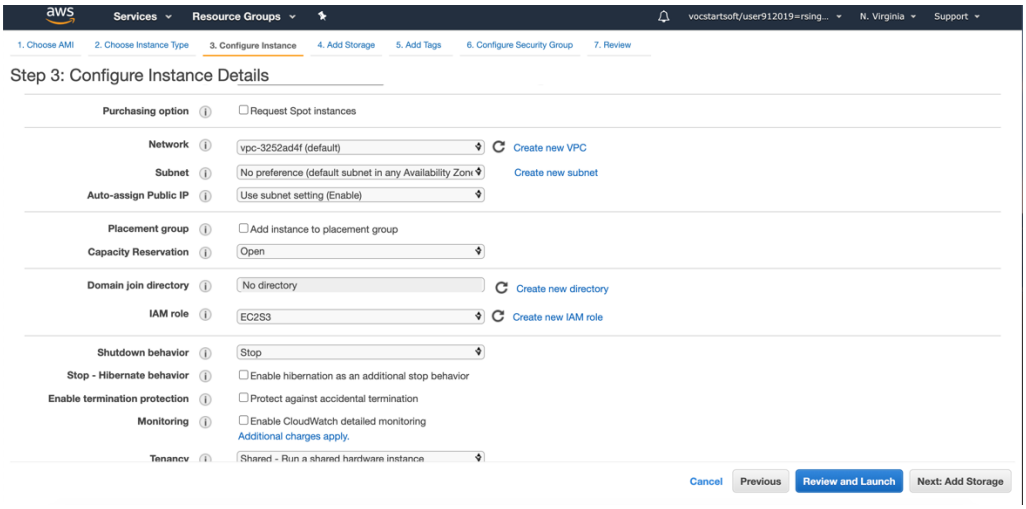
2. Created Security Groups SG_EC2 with inbound rule ‘SSH’ as type and source selected as ‘anywhere’ with the same outbound rules. Adding another inbound rule ‘HTTP’ and source ‘anywhere’

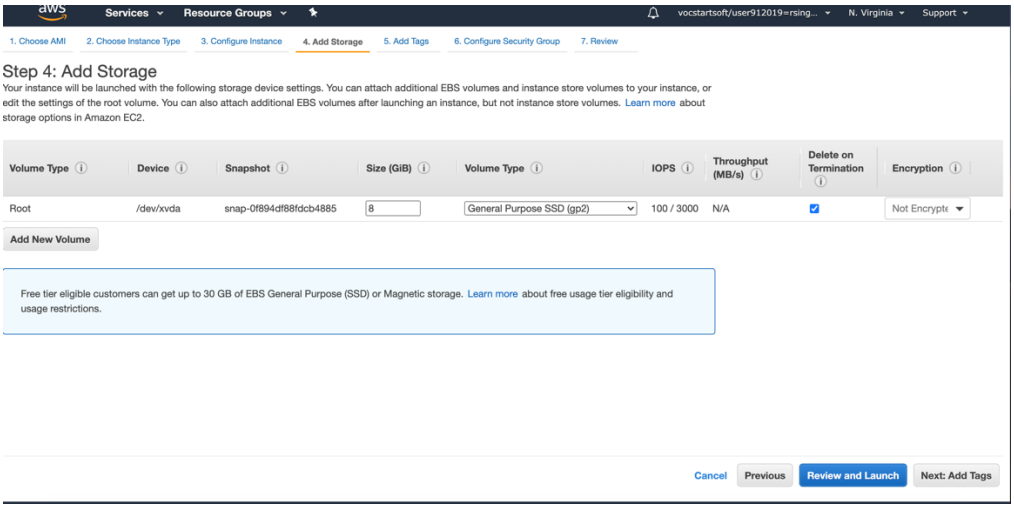


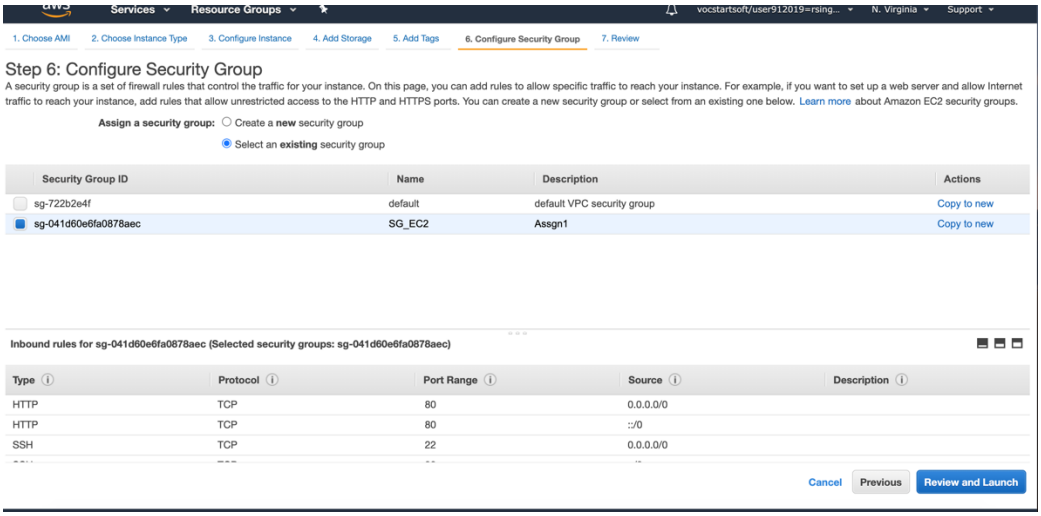
3. Launching EC2 Instance:

Selected instances and launch instance. Select second AMI named as Amazon Linux AMI 2018.03.0. Then selected ‘t2.micro’ followed by selecting ‘EC2S3’ for IAM role. Added a script to install codedeploy agent on the EC2 instance, added storage and tags. Then added tag with “Name” in the ‘Key’ column and “Web Server” in the ‘Value’ column and then configured the security group with the previously created ‘SG_EC2’.

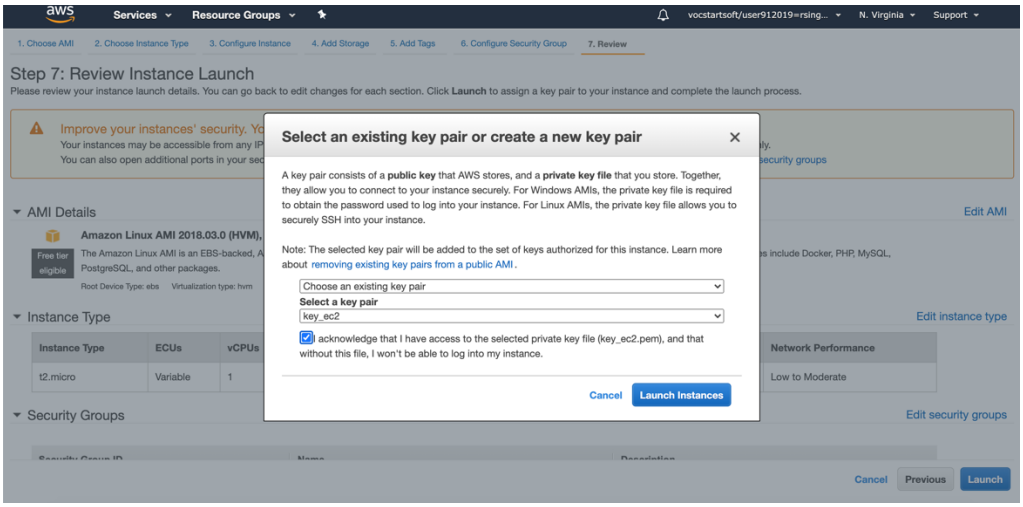




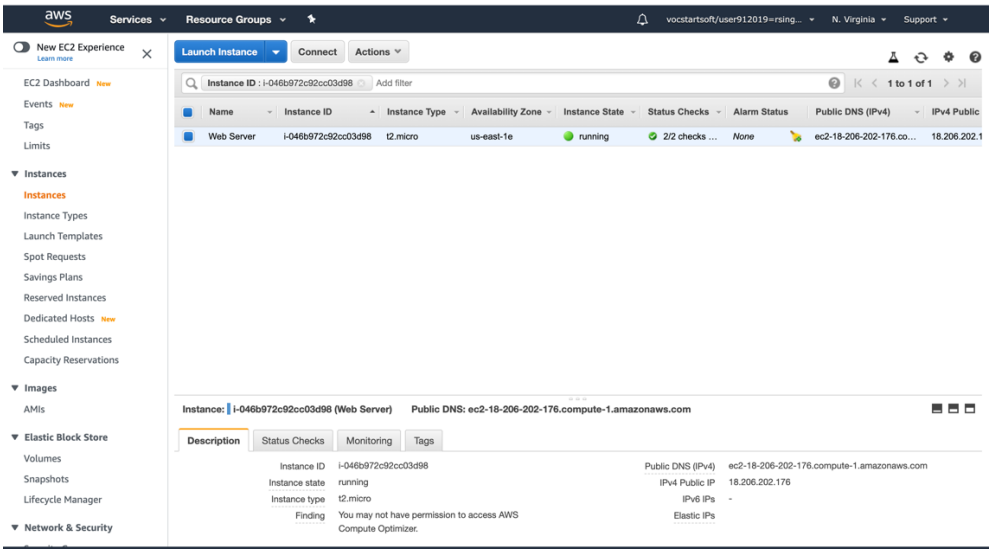




Downloaded the key_ec2 key pair which is a .pem file and then clicked on launch instances.



The EC2 instance is running



4. Connecting to instances using SSH:

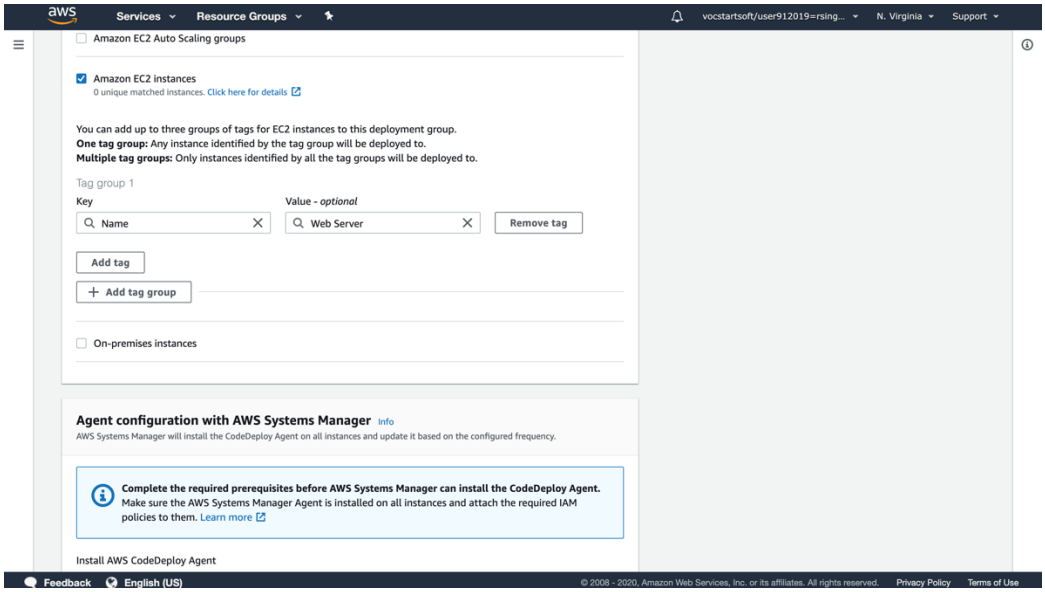
```
Last login: Thu Sep  3 22:44:58 on ttys000

The default interactive shell is now zsh.
To update your account to use zsh, please run `chsh -s /bin/zsh`.
For more details, please visit https://support.apple.com/kb/HT208050.
(base) Rashikas-Air:~ rashikasingh$ chmod 400 key_ec2.pem
chmod: key_ec2.pem: No such file or directory
(base) Rashikas-Air:~ rashikasingh$ cd /Users/rashikasingh/Downloads
(base) Rashikas-Air:Downloads rashikasingh$ chmod 400 key_ec2.pem
(base) Rashikas-Air:Downloads rashikasingh$ ssh -i key_ec2.pem ec2-user@ec2-18-206-202-176.compute-1.amazonaws.com

       __|  __|_  )
       _|  (     /   Amazon Linux AMI
      ___|\___|___|

https://aws.amazon.com/amazon-linux-ami/2018.03-release-notes/
11 package(s) needed for security, out of 17 available
Run "sudo yum update" to apply all updates.
[ec2-user@ip-172-31-49-30 ~]$ sudo yum install -y httpd
Loaded plugins: priorities, update-motd, upgrade-helper
amzn-main                                                | 2.1 kB     00:00
amzn-updates                                             | 3.8 kB     00:00
(1/3): amzn-updates/latest/group_gz                        | 4.4 kB   00:00
(2/3): amzn-updates/latest/updateinfo                      | 691 kB   00:00
(3/3): amzn-updates/latest/primary_db                      | 3.9 MB   00:01
Resolving Dependencies
--> Running transaction check
---> Package httpd.x86_64 0:2.2.34-1.16.amzn1 will be installed
--> Processing Dependency: httpd-tools = 2.2.34-1.16.amzn1 for package: httpd-2.2.34-1.16.amzn1.x86_64
--> Processing Dependency: apr-util-ldap for package: httpd-2.2.34-1.16.amzn1.x86_64
--> Processing Dependency: libaprutil-1.so.0()(64bit) for package: httpd-2.2.34-1.16.amzn1.x86_64
--> Processing Dependency: libapr-1.so.0()(64bit) for package: httpd-2.2.34-1.16.amzn1.x86_64
--> Running transaction check
---> Package apr.x86_64 0:1.5.2-5.13.amzn1 will be installed
---> Package apr-util.x86_64 0:1.5.4-6.18.amzn1 will be installed
---> Package apr-util-ldap.x86_64 0:1.5.4-6.18.amzn1 will be installed
---> Package httpd-tools.x86_64 0:2.2.34-1.16.amzn1 will be installed
--> Finished Dependency Resolution

Dependencies Resolved

================================================================================
 Package             Arch          Version                Repository       Size
================================================================================
Installing:
 httpd               x86_64        2.2.34-1.16.amzn1      amzn-main       1.2 M
Installing for dependencies:
 apr                 x86_64        1.5.2-5.13.amzn1       amzn-main       118 k
 apr-util            x86_64        1.5.4-6.18.amzn1       amzn-main        99 k
 apr-util-ldap       x86_64        1.5.4-6.18.amzn1       amzn-main        19 k
 httpd-tools         x86_64        2.2.34-1.16.amzn1      amzn-main        80 k

Transaction Summary
================================================================================
Install  1 Package (+4 Dependent packages)

Total download size: 1.5 M
Installed size: 3.6 M
Downloading packages:
(1/5): apr-util-ldap-1.5.4-6.18.amzn1.x86_64.rpm           |  19 kB   00:00
(2/5): apr-1.5.2-5.13.amzn1.x86_64.rpm                     | 118 kB   00:00
(3/5): httpd-tools-2.2.34-1.16.amzn1.x86_64.rpm            |  80 kB   00:00
(4/5): apr-util-1.5.4-6.18.amzn1.x86_64.rpm                |  99 kB   00:00
```

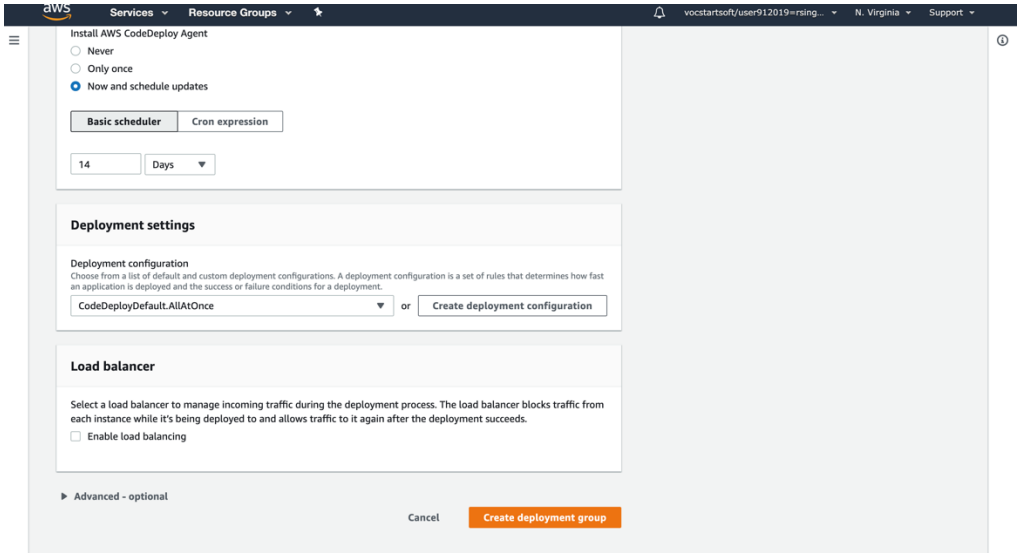
Setting the EC2 to host page by entering commands in terminal.

```
================================================================================
 Package             Arch          Version                Repository       Size
================================================================================
Installing:
 httpd               x86_64        2.2.34-1.16.amzn1      amzn-main       1.2 M
Installing for dependencies:
 apr                 x86_64        1.5.2-5.13.amzn1       amzn-main       118 k
 apr-util            x86_64        1.5.4-6.18.amzn1       amzn-main        99 k
 apr-util-ldap       x86_64        1.5.4-6.18.amzn1       amzn-main        19 k
 httpd-tools         x86_64        2.2.34-1.16.amzn1      amzn-main        80 k

Transaction Summary
================================================================================
Install  1 Package (+4 Dependent packages)

Total download size: 1.5 M
Installed size: 3.6 M
Downloading packages:
(1/5): apr-util-ldap-1.5.4-6.18.amzn1.x86_64.rpm           |  19 kB   00:00
(2/5): apr-1.5.2-5.13.amzn1.x86_64.rpm                     | 118 kB   00:00
(3/5): httpd-tools-2.2.34-1.16.amzn1.x86_64.rpm            |  80 kB   00:00
(4/5): apr-util-1.5.4-6.18.amzn1.x86_64.rpm                |  99 kB   00:00
(5/5): httpd-2.2.34-1.16.amzn1.x86_64.rpm                  | 1.2 MB   00:00
--------------------------------------------------------------------------------
Total                                           1.7 MB/s | 1.5 MB  00:00
Running transaction check
Running transaction test
Transaction test succeeded
Running transaction
  Installing : apr-1.5.2-5.13.amzn1.x86_64                                  1/5
  Installing : apr-util-1.5.4-6.18.amzn1.x86_64                             2/5
  Installing : httpd-tools-2.2.34-1.16.amzn1.x86_64                         3/5
  Installing : apr-util-ldap-1.5.4-6.18.amzn1.x86_64                        4/5
  Installing : httpd-2.2.34-1.16.amzn1.x86_64                               5/5
  Verifying  : httpd-tools-2.2.34-1.16.amzn1.x86_64                         1/5
  Verifying  : apr-util-1.5.4-6.18.amzn1.x86_64                             2/5
  Verifying  : httpd-2.2.34-1.16.amzn1.x86_64                               3/5
  Verifying  : apr-1.5.2-5.13.amzn1.x86_64                                  4/5
  Verifying  : apr-util-ldap-1.5.4-6.18.amzn1.x86_64                        5/5

Installed:
  httpd.x86_64 0:2.2.34-1.16.amzn1

Dependency Installed:
  apr.x86_64 0:1.5.2-5.13.amzn1
  apr-util.x86_64 0:1.5.4-6.18.amzn1
  apr-util-ldap.x86_64 0:1.5.4-6.18.amzn1
  httpd-tools.x86_64 0:2.2.34-1.16.amzn1

Complete!
[ec2-user@ip-172-31-49-30 ~]$ sudo service httpd start
Starting httpd:                                            [  OK  ]
[ec2-user@ip-172-31-49-30 ~]$ sudo service httpd restart
Stopping httpd:                                            [  OK  ]
Starting httpd:                                            [  OK  ]
[ec2-user@ip-172-31-49-30 ~]$
Broadcast message from root@ip-172-31-49-30
        (unknown) at 16:34 ...

The system is going down for power off NOW!
Connection to ec2-18-206-202-176.compute-1.amazonaws.com closed by remote host.
Connection to ec2-18-206-202-176.compute-1.amazonaws.com closed.
(base) Rashikas-Air:Downloads rashikasingh$
```

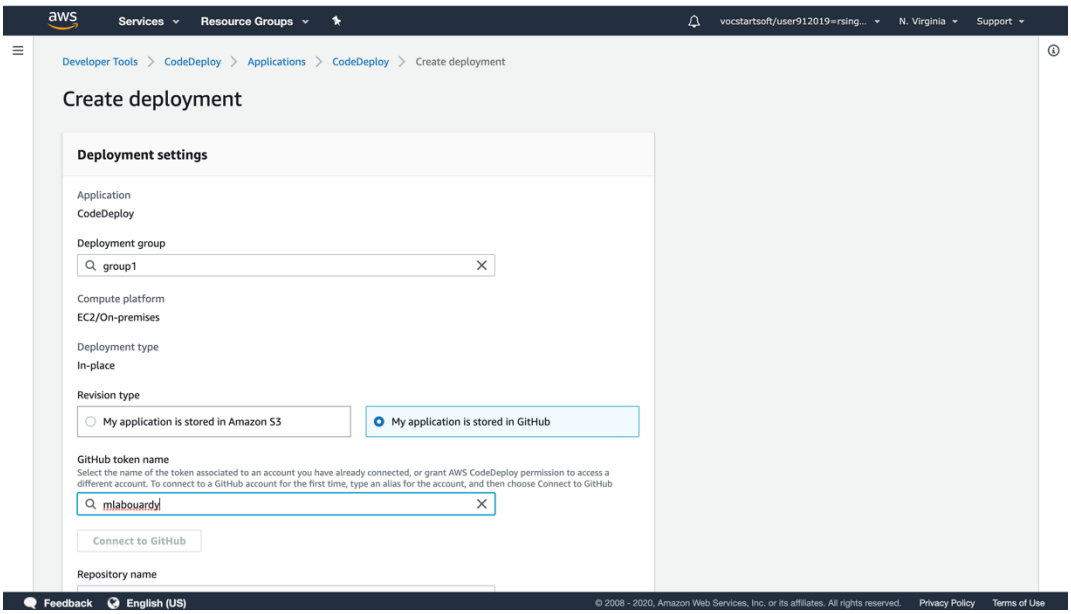
5. Setting CodeDeploy:

Created a new application using CodeDeploy, selected EC2/on-premise for Application name. Created deployment group by selecting ‘codedeployrole’ under ‘Service role’ and ‘In-place’ under ‘Deployment type’. Selected Amazon EC2 instances in the Environment configuration and Name as Key and Web Server as Value. Selected code deploy all at once and disabled load balancer.





Created deployment by selecting my application is stored in github and entered username and github credentials.


Services
Resource Groups
vocstartsoft/user912019=rsing...
N. Virginia
Support
Developer Tools
CodeDeploy
Applications
CodeDeploy
Create deployment
Create deployment
Deployment settings
Application
CodeDeploy
Deployment group
group1
Compute platform
EC2/On-premises
Deployment type
In-place
Revision type
My application is stored in Amazon S3
My application is stored in GitHub
GitHub token name
Select the name of the token associated to an account you have already connected, or grant AWS CodeDeploy permission to access a different account. To connect to a GitHub account for the first time, type an alias for the account, and then choose Connect to GitHub
mlabouardy
Connect to GitHub
Repository name
Feedback
English (US)
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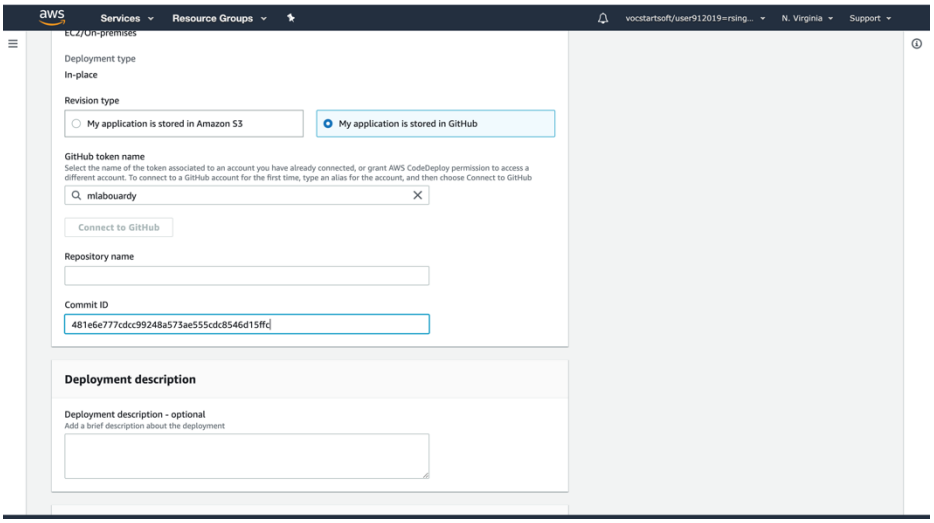
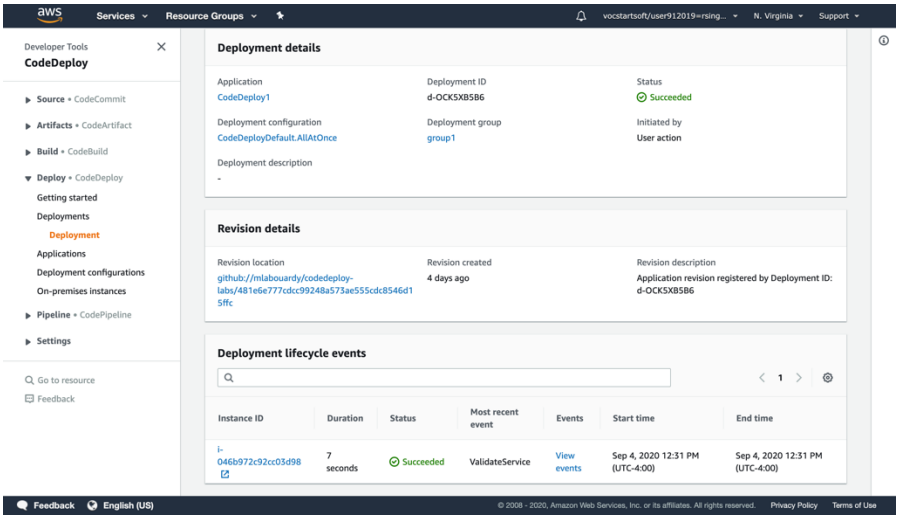
Privacy Policy
Terms of Use


Services
Resource Groups
vocstartsoft/user912019=rsing...
N. Virginia
Support
Deployment type
In-place
Revision type
My application is stored in Amazon S3
My application is stored in GitHub
GitHub token name
Select the name of the token associated to an account you have already connected, or grant AWS CodeDeploy permission to access a different account. To connect to a GitHub account for the first time, type an alias for the account, and then choose Connect to GitHub
mlabouardy
Connect to GitHub
Repository name
Commit ID
481e6e777cdcc99248a573ae555cdc8546d15ffc
Deployment description
Deployment description - optional
Add a brief description about the deployment


Services
Resource Groups
vocstartsoft/user912019=rsing...
N. Virginia
Support
Developer Tools
CodeDeploy
Source • CodeCommit
Artifacts • CodeArtifact
Build • CodeBuild
Deploy • CodeDeploy
Getting started
Deployments
Deployment
Applications
Deployment configurations
On-premises instances
Pipeline • CodePipeline
Settings
Go to resource
Feedback
Deployment details
Application
CodeDeploy1
Deployment ID
d-OCK5XB5B6
Status
Succeeded
Deployment configuration
CodeDeployDefault.AllAtOnce
Deployment group
group1
Initiated by
User action
Deployment description
-
Revision details
Revision location
github://mlabouardy/codedeploy-labs/481e6e777cdcc99248a573ae555cdc8546d15ffc
Revision created
4 days ago
Revision description
Application revision registered by Deployment ID: d-OCK5XB5B6
Deployment lifecycle events
Instance ID
Duration
Status
Most recent event
Events
Start time
End time
i-046b972c92cc03d98
7 seconds
Succeeded
ValidateService
View events
Sep 4, 2020 12:31 PM (UTC-4:00)
Sep 4, 2020 12:31 PM (UTC-4:00)
Feedback
English (US)
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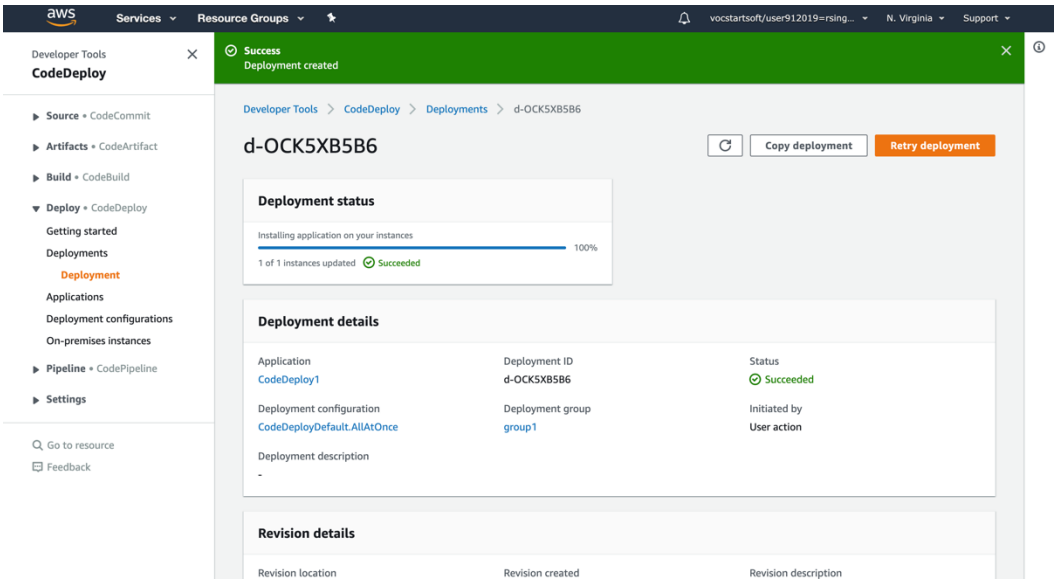
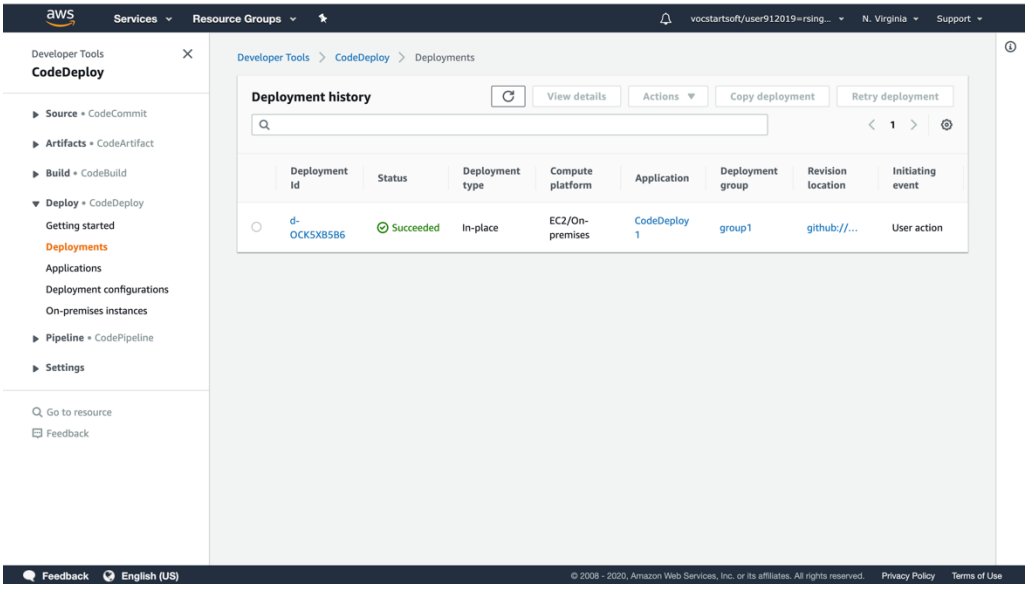
Privacy Policy
Terms of Use

The deployment is successful.





Using IPV4 Public IP of the EC2 instance in the browser, the following page got displayed.