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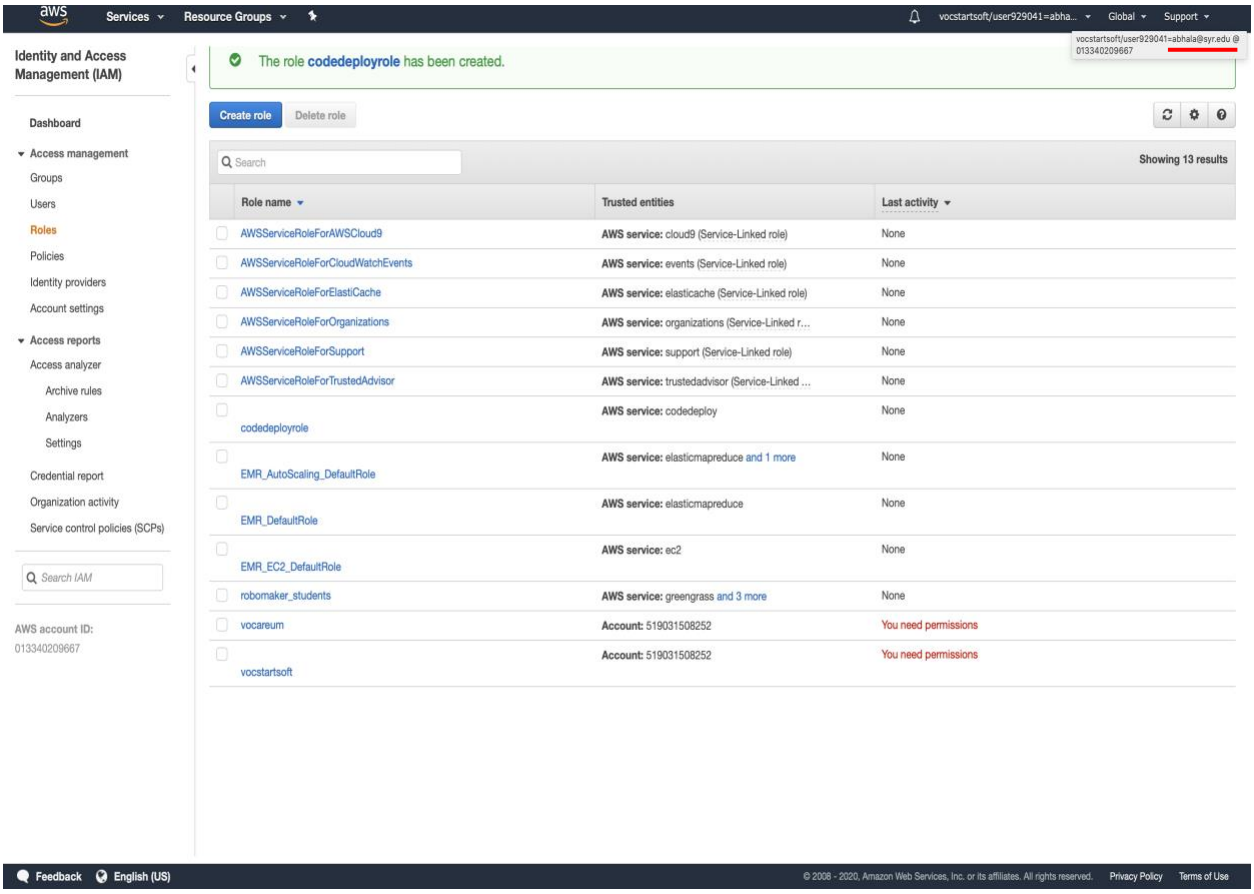
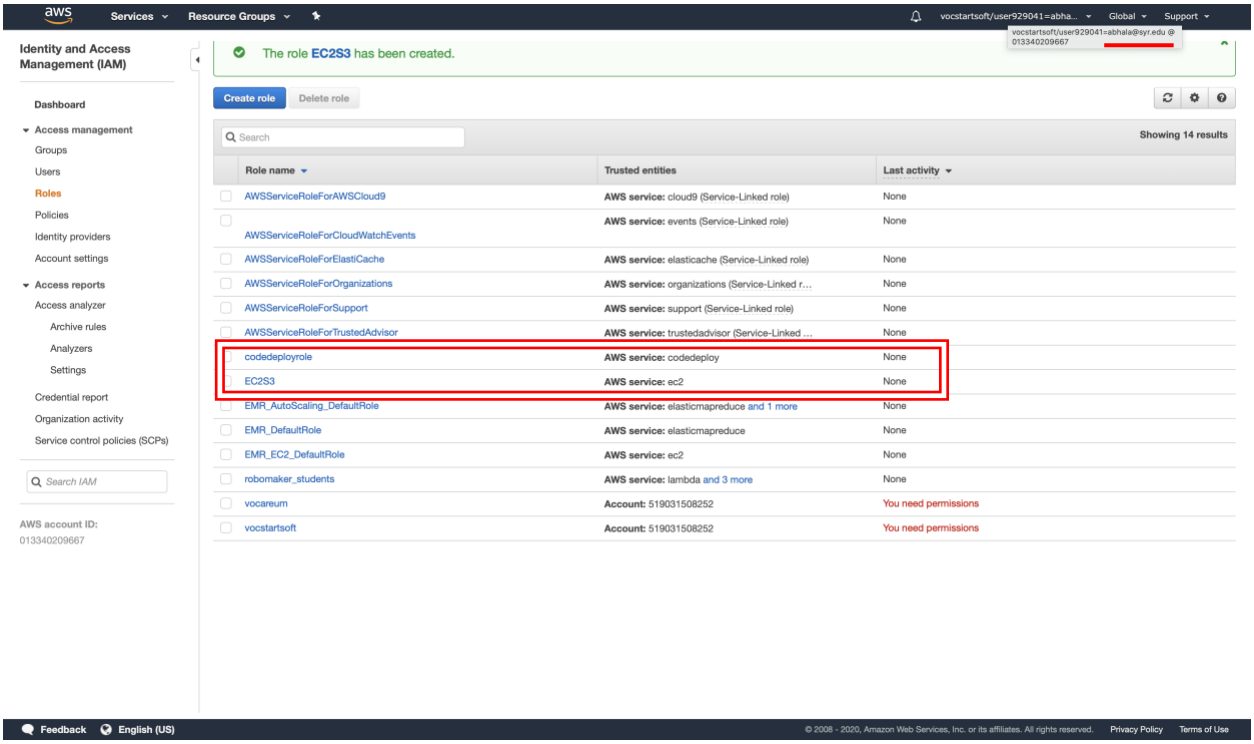
Assignment / lab1

1. Creating two IAM (Identity Access Management) roles.

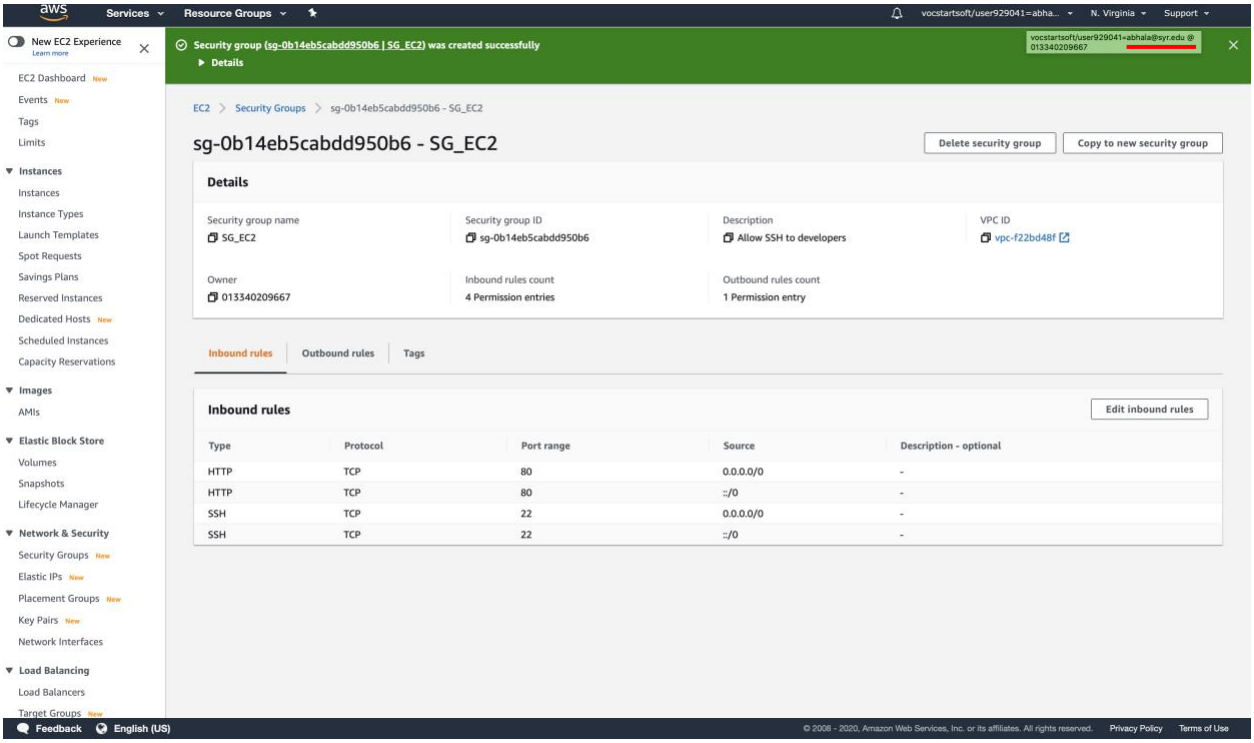
   1.1 Creating code deploy role



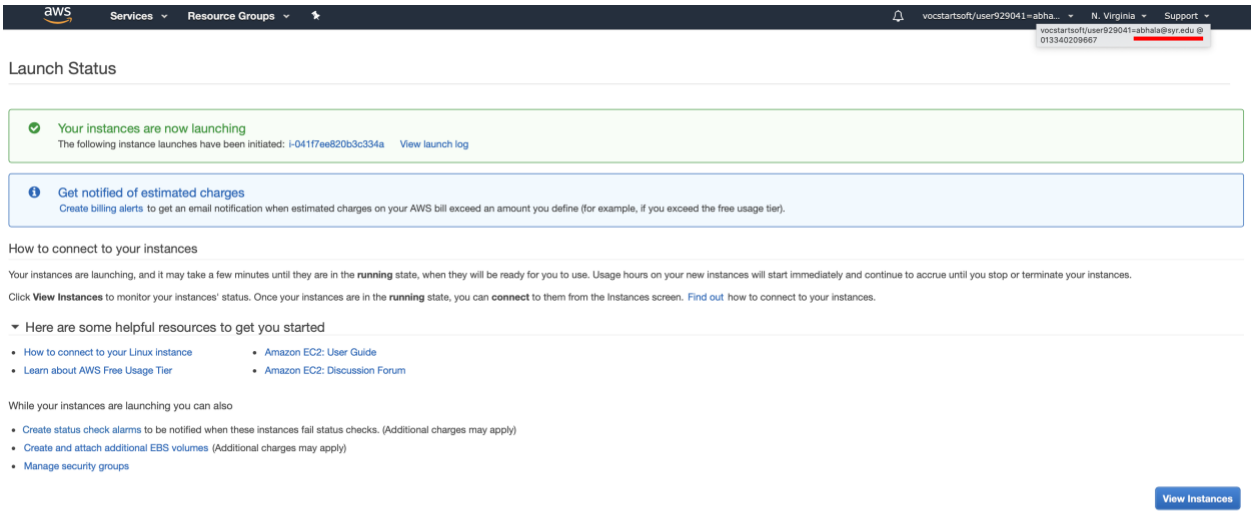
1.2 Creating EC2 role



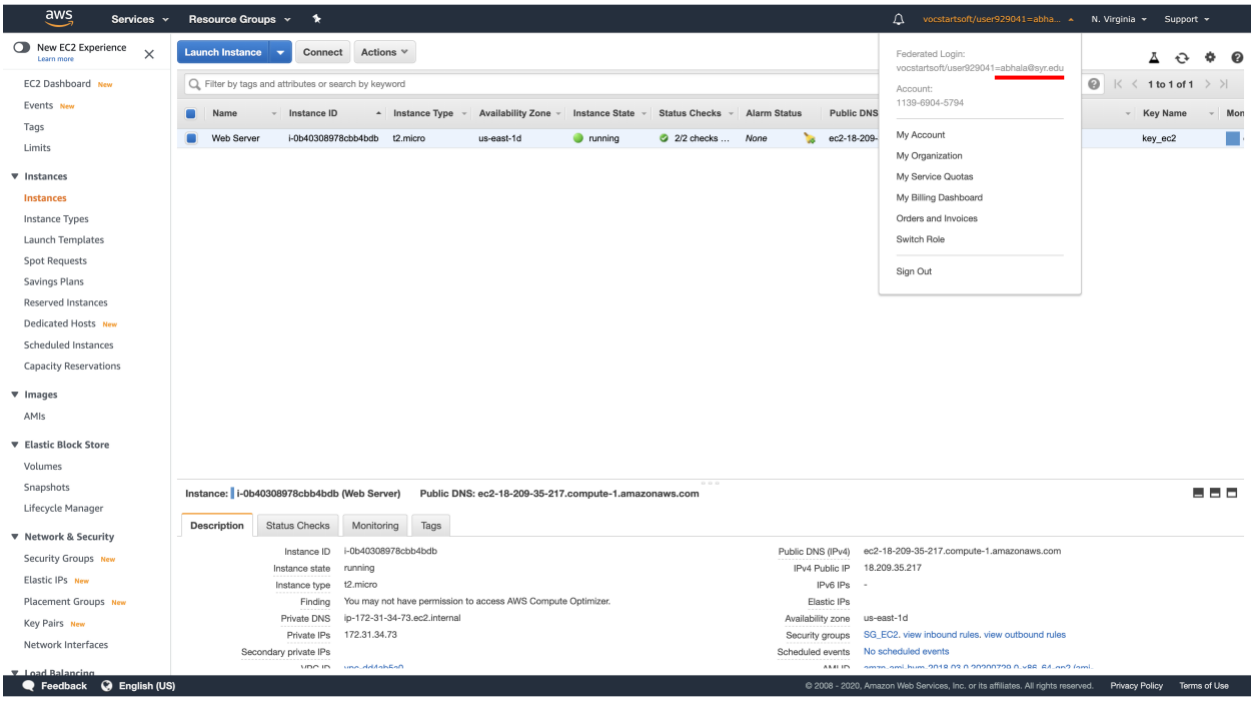
2. Created a Security group "SG_EC2" with two inbound rules of the type 'SSH' and 'HTTP' respectively with source as 'Anywhere'.



3. Proceeding to launch instance by selecting EC2S3 as IAM role, Amazon linux AMI 2018.03.0. as AMI, script in advance details to install a codedeploy agent on EC2 instnce, tags consisting key as 'Name' and value as 'Web Server' and finally selecting our created security group (SG_EC2). Finally we launch our instances.



3.1 Our instance is running



4. Connecting to instances using SSH

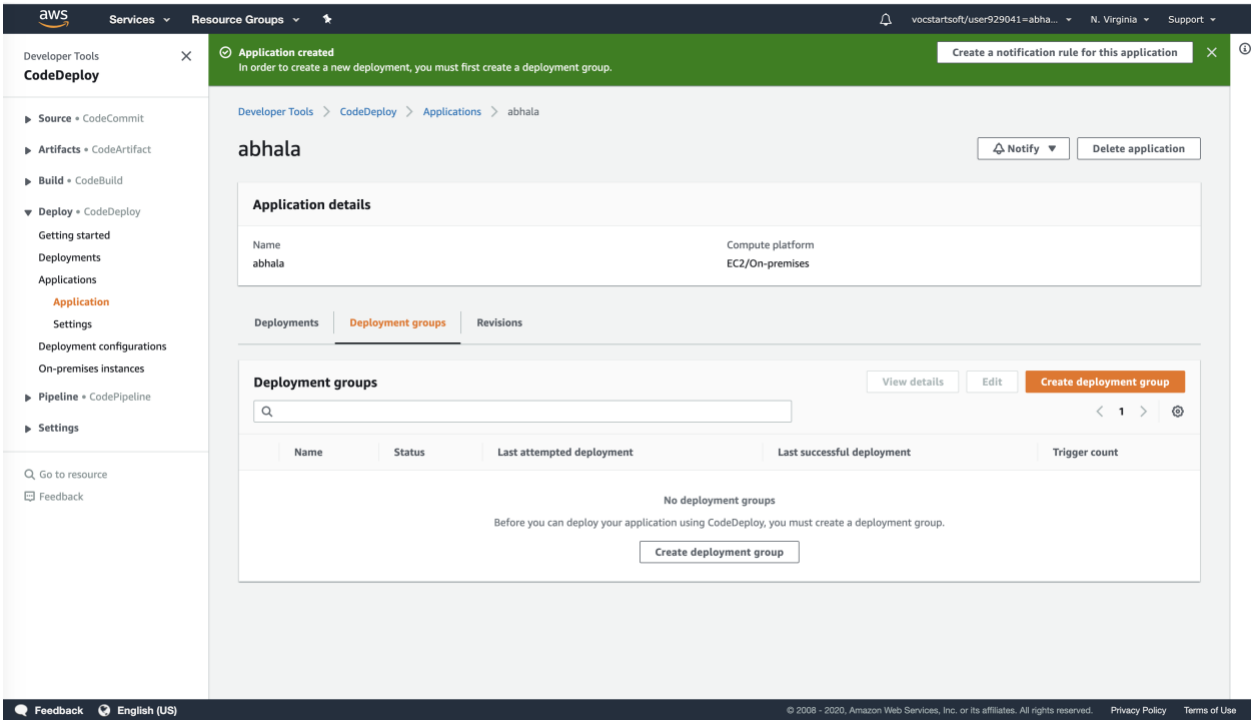
```
akshaybhala@MacBook-Pro downloads % ssh -i key_ec2.pem ec2-user@ec2-54-174-70-243.compute-1.amazonaws.com

       __|  __|_  )
       _|  (     /   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-172-31-32-226 ~]$
```

5. Setting my EC2 to host the web page

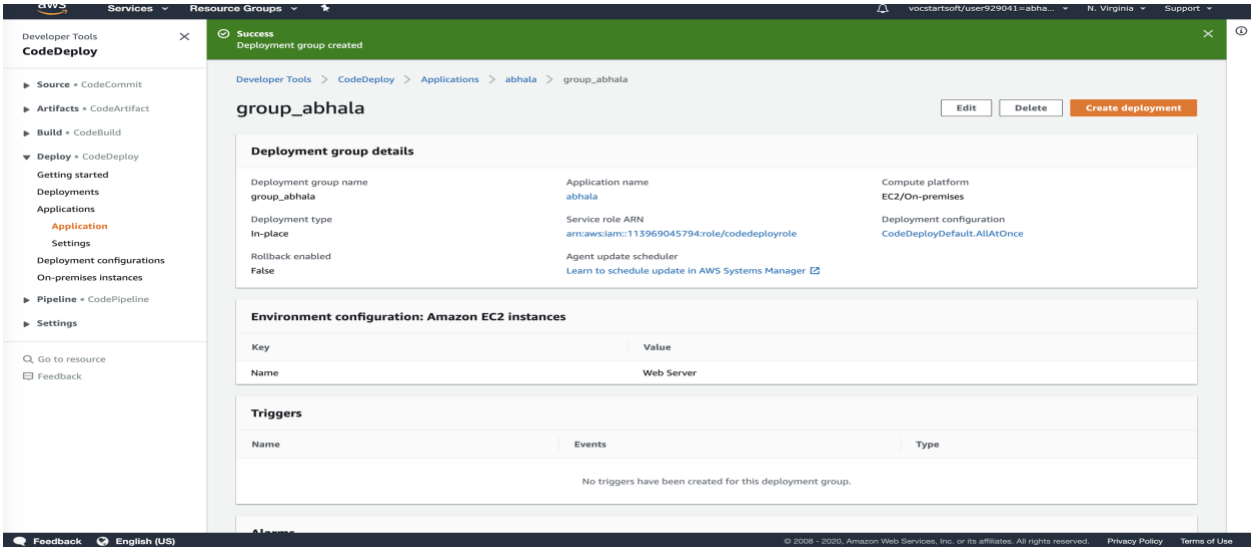
```
Run "sudo yum update" to apply all updates.
[ec2-user@ip-172-31-32-226 ~]$ sudo yum install -y httpd
Loaded plugins: priorities, update-motd, upgrade-helper
amzn-main                                                | 2.1 kB     00:00
amzn-updates                                             | 3.8 kB     00:00
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-1.5.4-6.18.amzn1.x86_64.rpm                |  99 kB   00:00
(2/5): apr-1.5.2-5.13.amzn1.x86_64.rpm                     | 118 kB   00:00
(3/5): apr-util-ldap-1.5.4-6.18.amzn1.x86_64.rpm           |  19 kB   00:00
(4/5): httpd-tools-2.2.34-1.16.amzn1.x86_64.rpm            |  80 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-172-31-32-226 ~]$ sudo service httpd start
Starting httpd:                                            [  OK  ]
[ec2-user@ip-172-31-32-226 ~]$ sudo service httpd restart
Stopping httpd:                                            [  OK  ]
Starting httpd:                                            [  OK  ]
[ec2-user@ip-172-31-32-226 ~]$
```

6. Setting up CodeDeploy

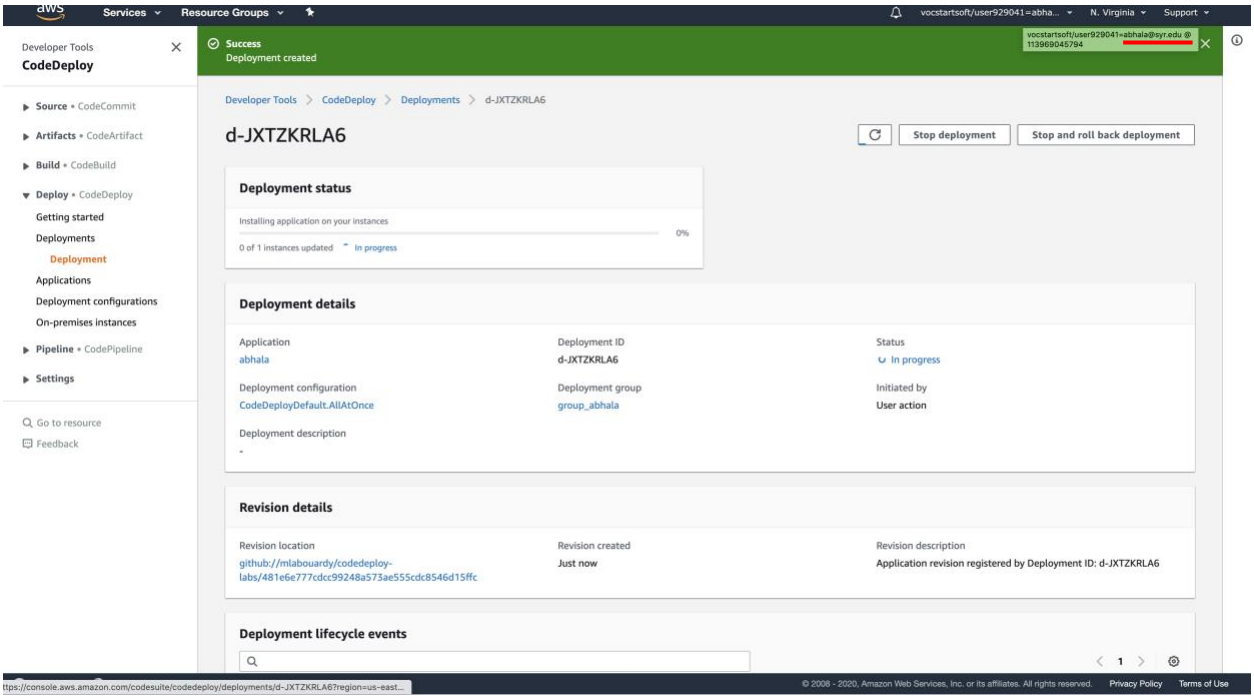
6.1 Created Application by selecting EC2/on premise for cloud platform



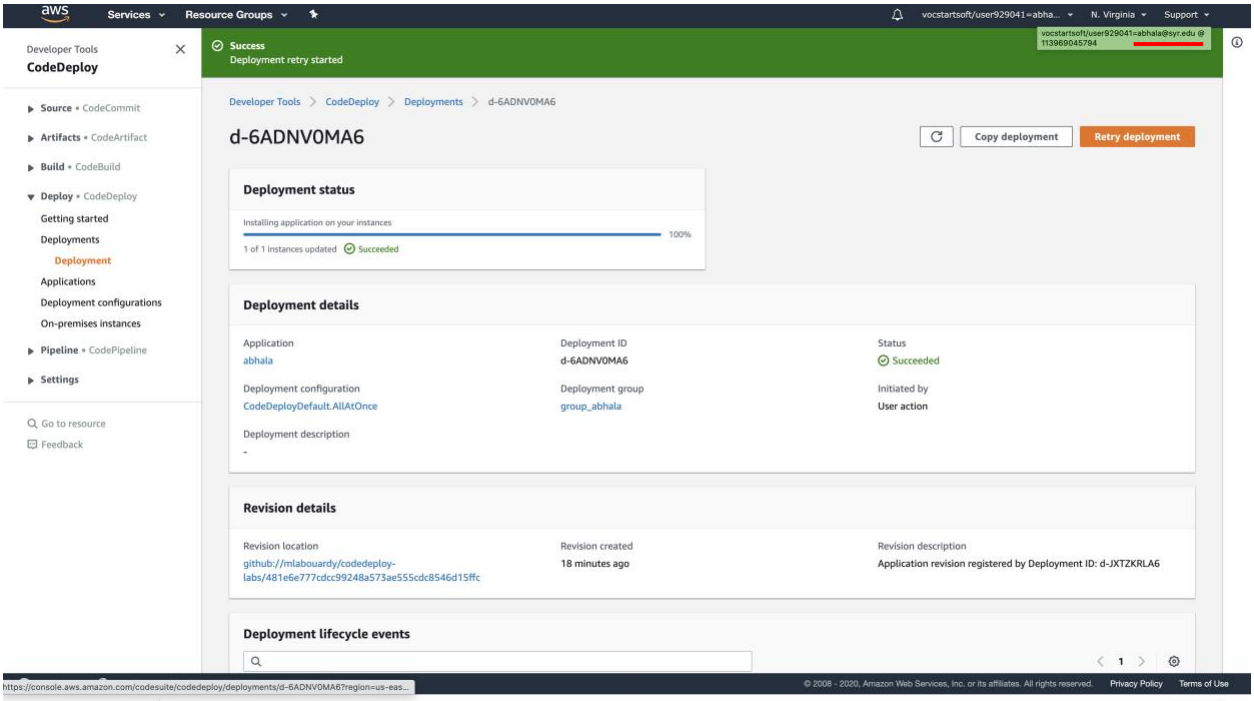
6.2 Created Deployment Group by selecting codedeployrole under service role, in-place under deployment type and under environment configuration selected Amazon EC2 instances, Name as key and Web Server as value. Kept Deployment settings as Code deploy default all at once and disabled load balancer.



6.3 Created Deployment by keeping revision type as ‘my application is stored in github’



6.4 The deployment is successful



6.5 Using IPV4 public IP of the EC2 instance into our browser, it shows that our deployment is successful.