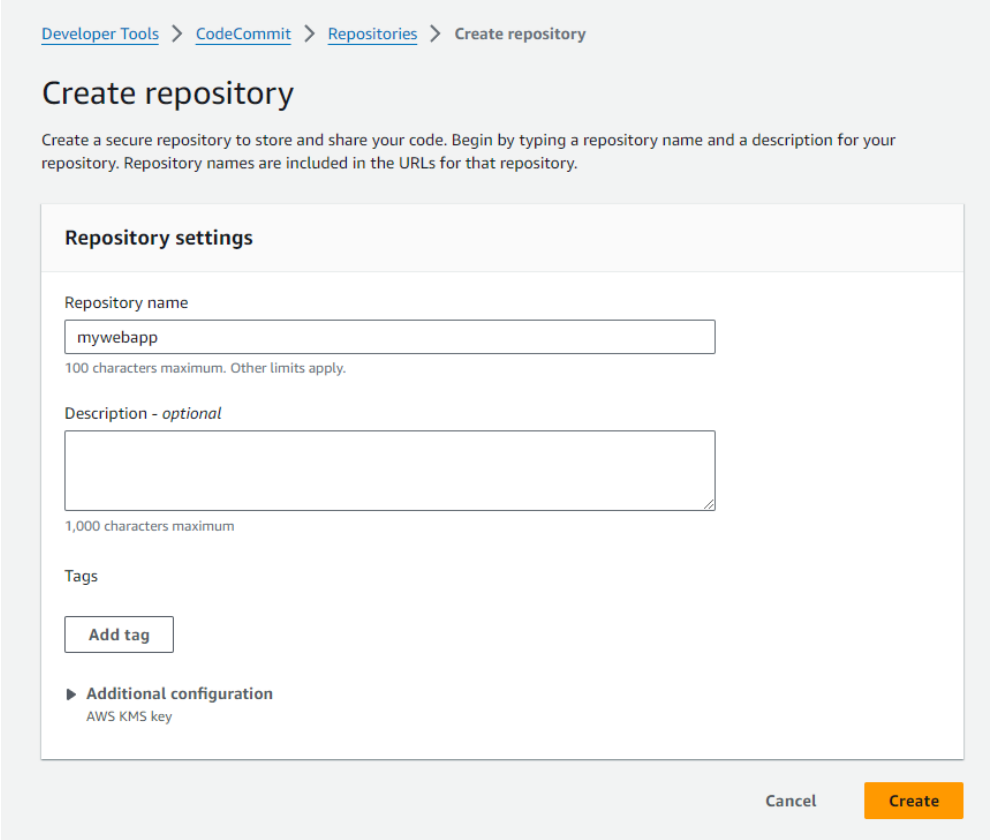
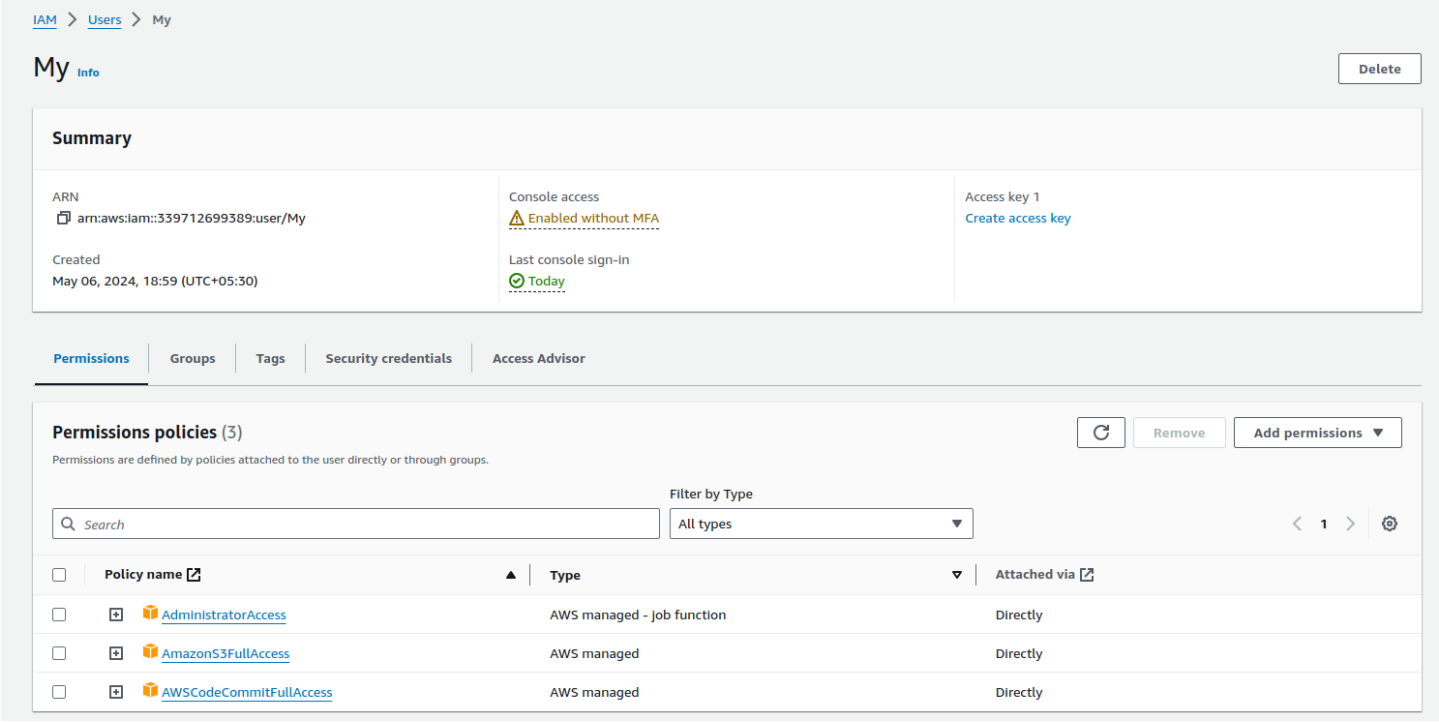
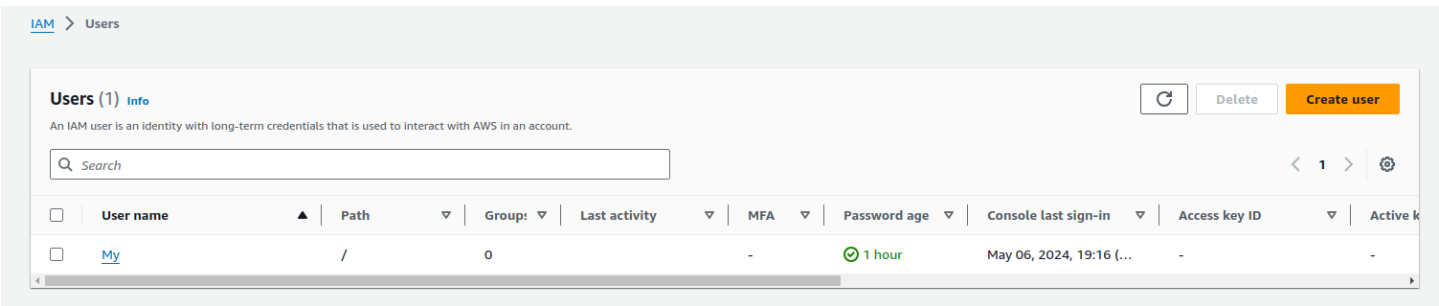
1.Creating Empty Repository

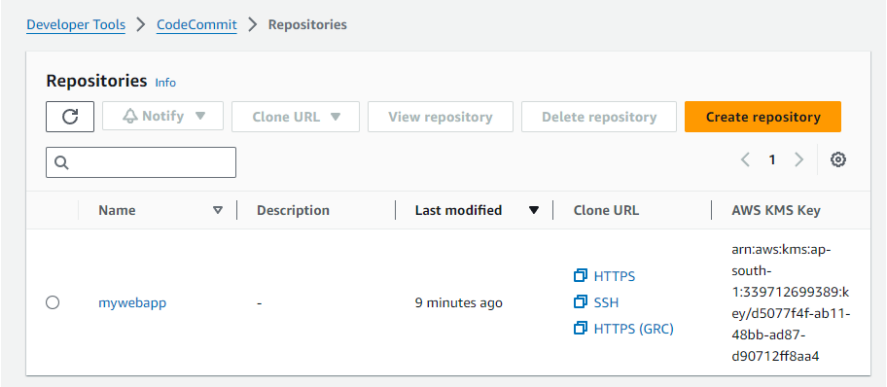


2.Creating User with Codecommit access Roles

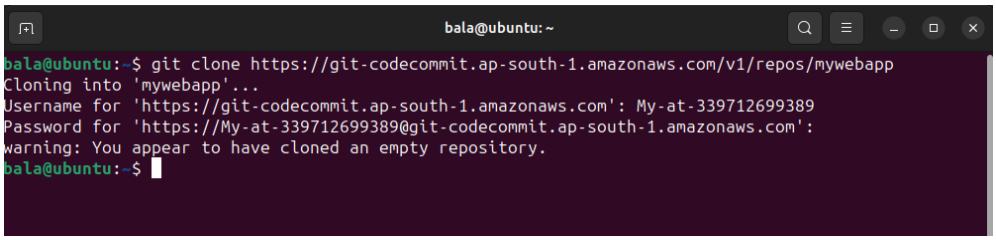




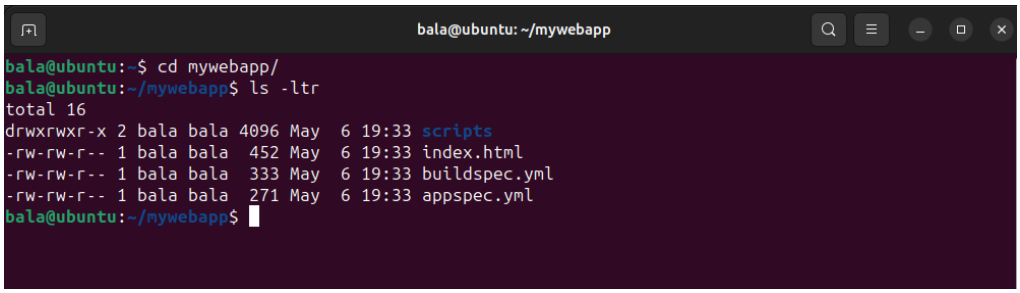
3.Repository Created



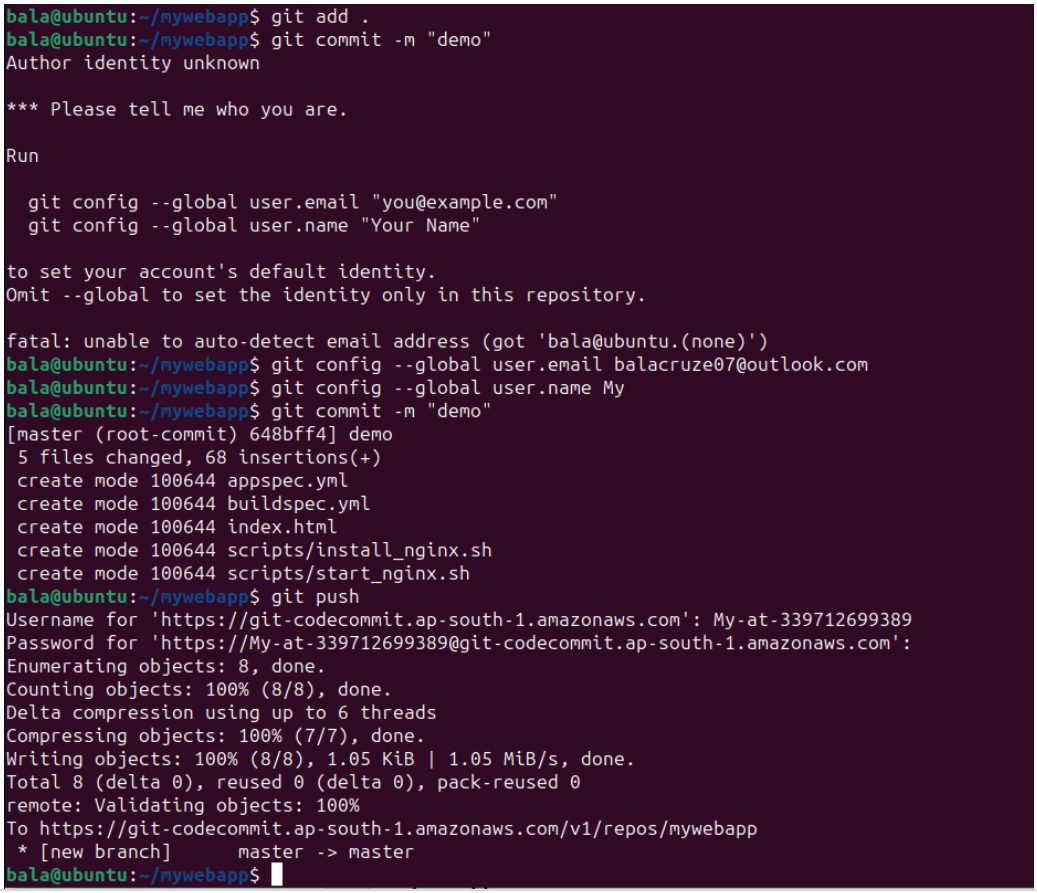
4.Cloning the Repository with Created user



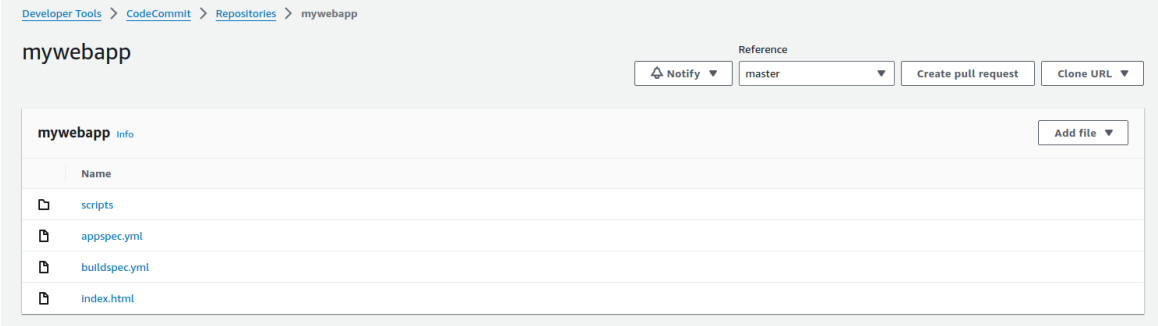
5.Application files have been created in the Local Repository



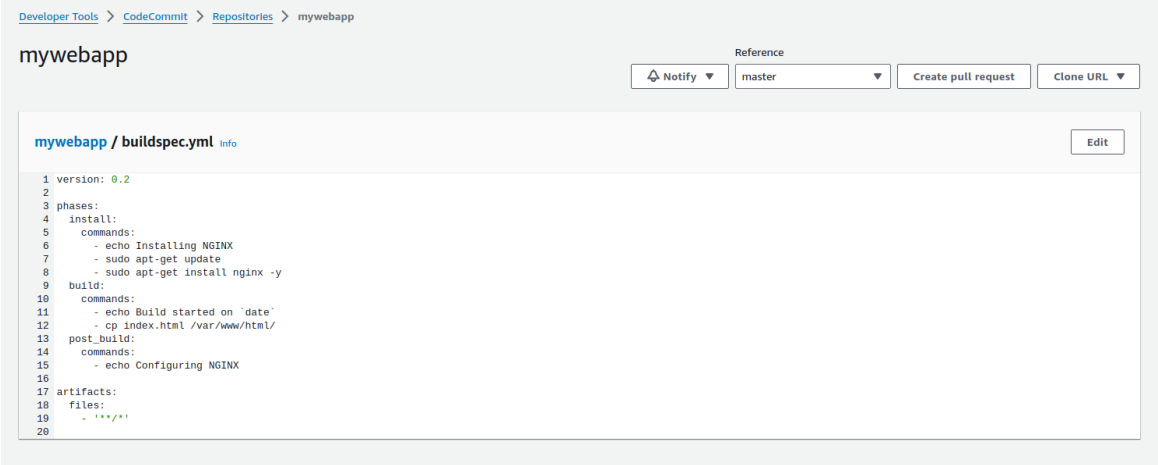
6.Application files Pushed to AWS Repository



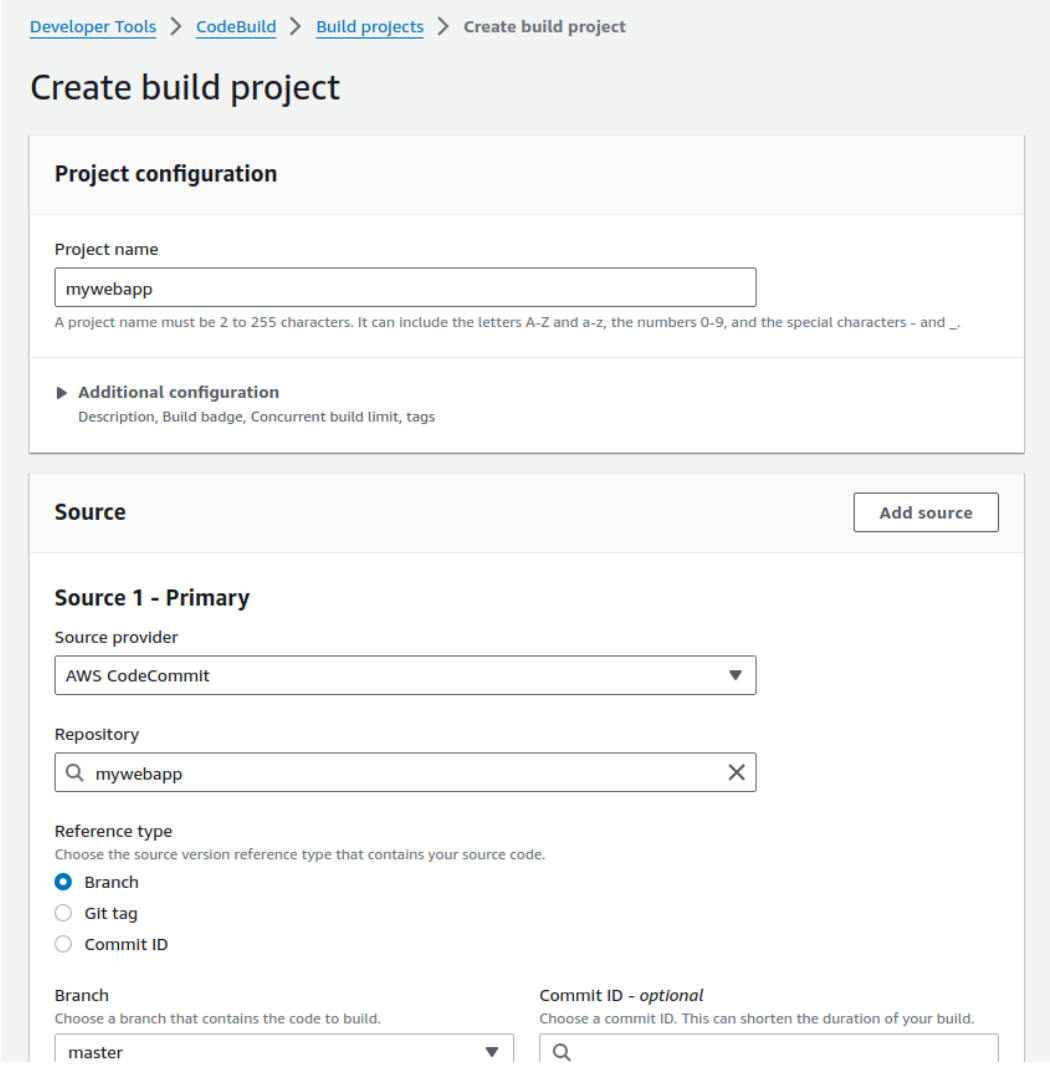
7.AWS Repository with Required files



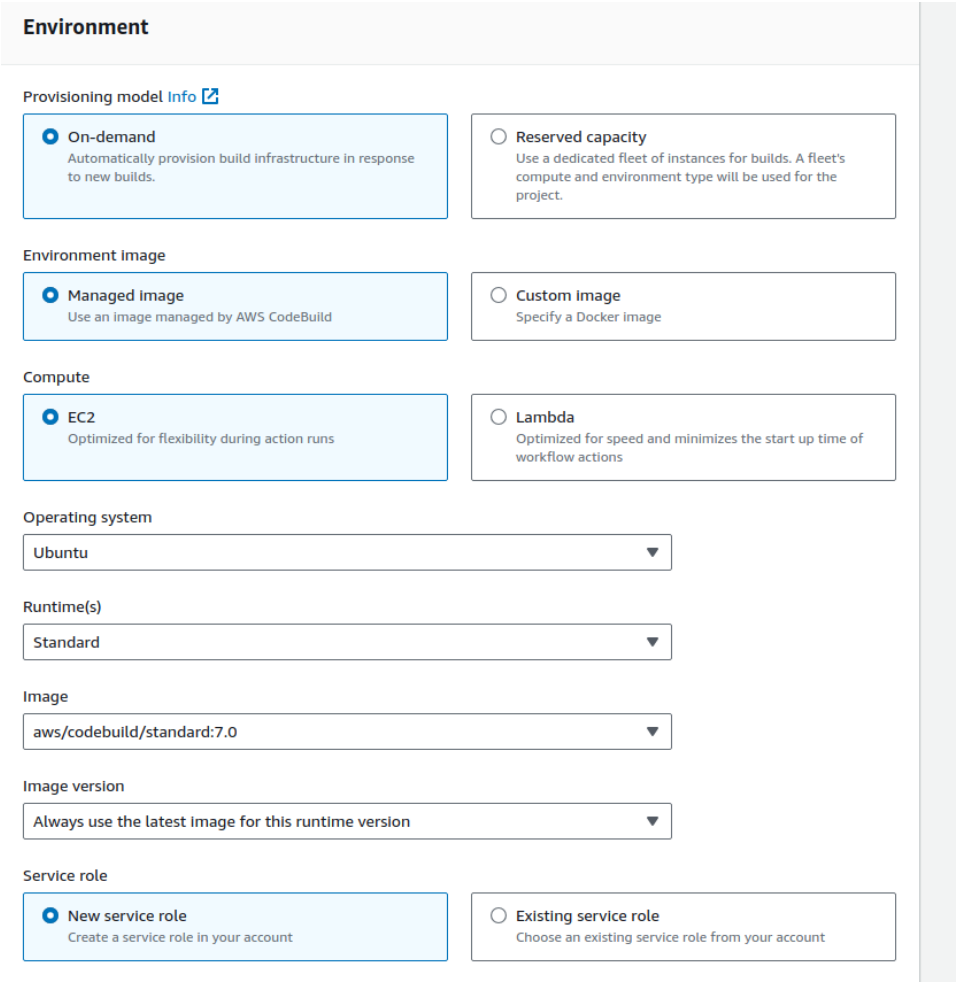
8.Buildspec file for CodeBuild



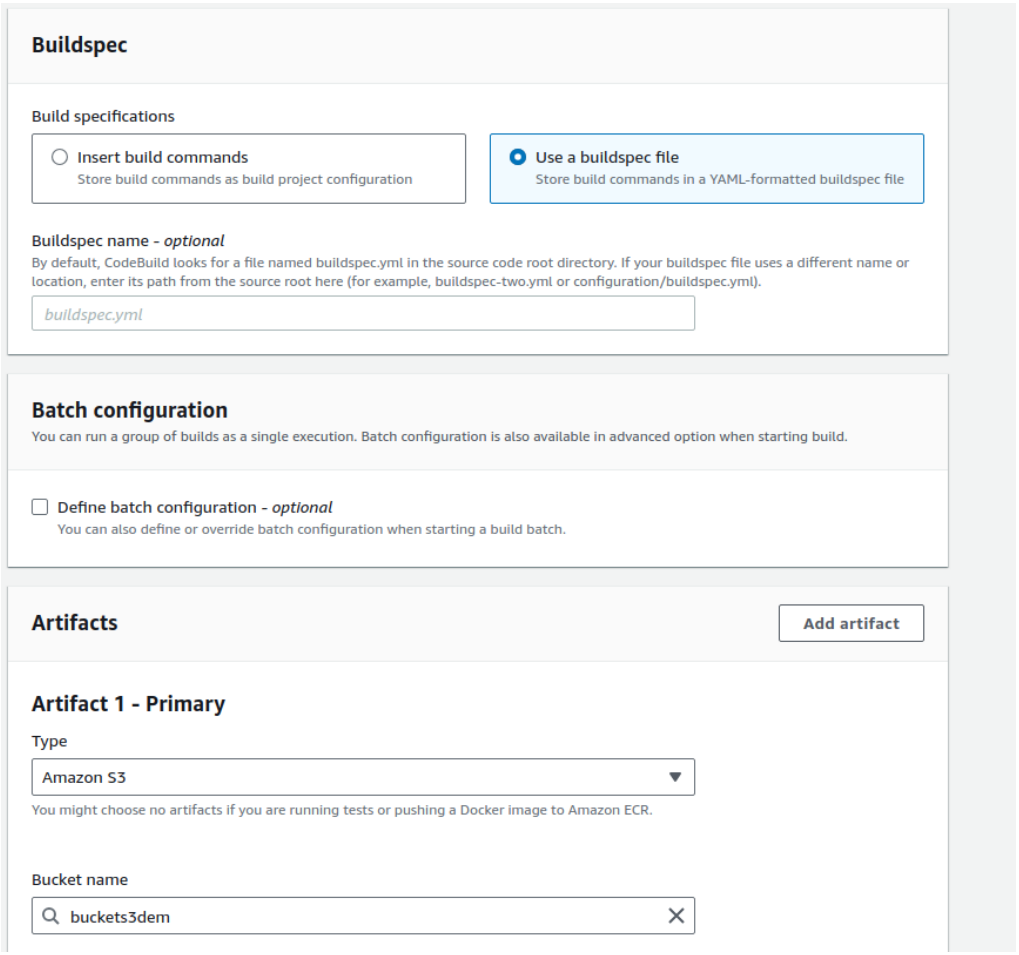
9.Creating Build Project



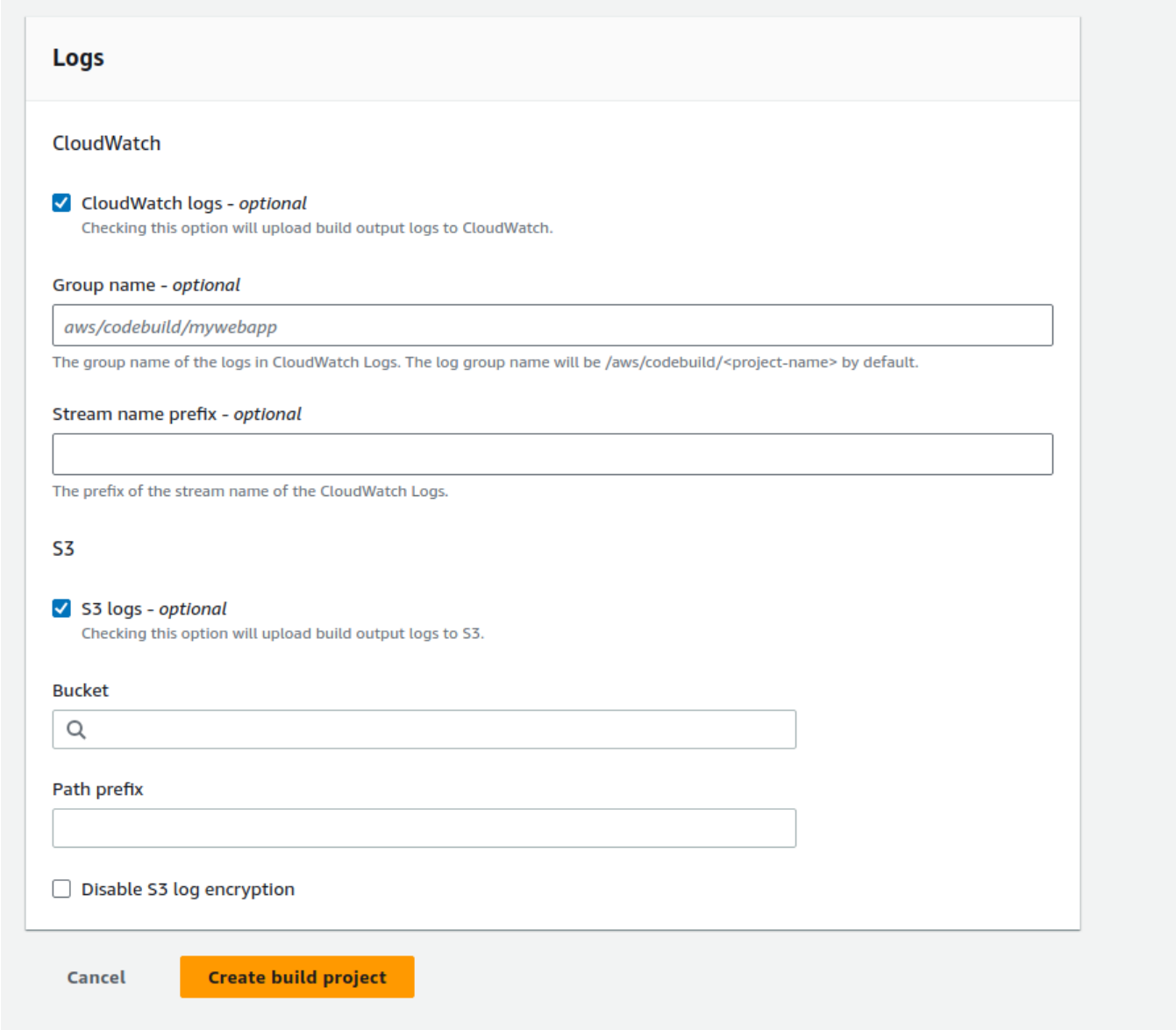
10.Setting EC2 Environment to create build



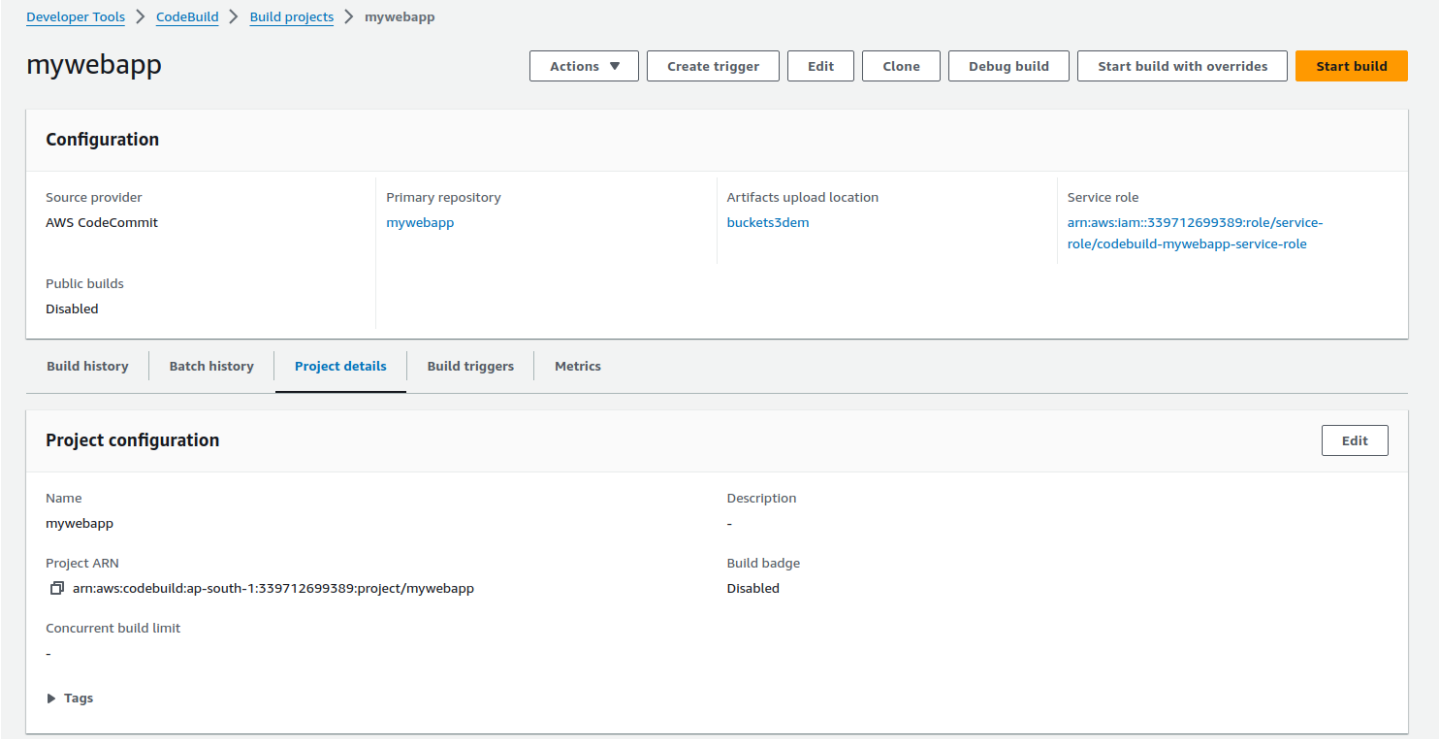
11.Choosing Buildspec file and S3 bucket for Artifact storage



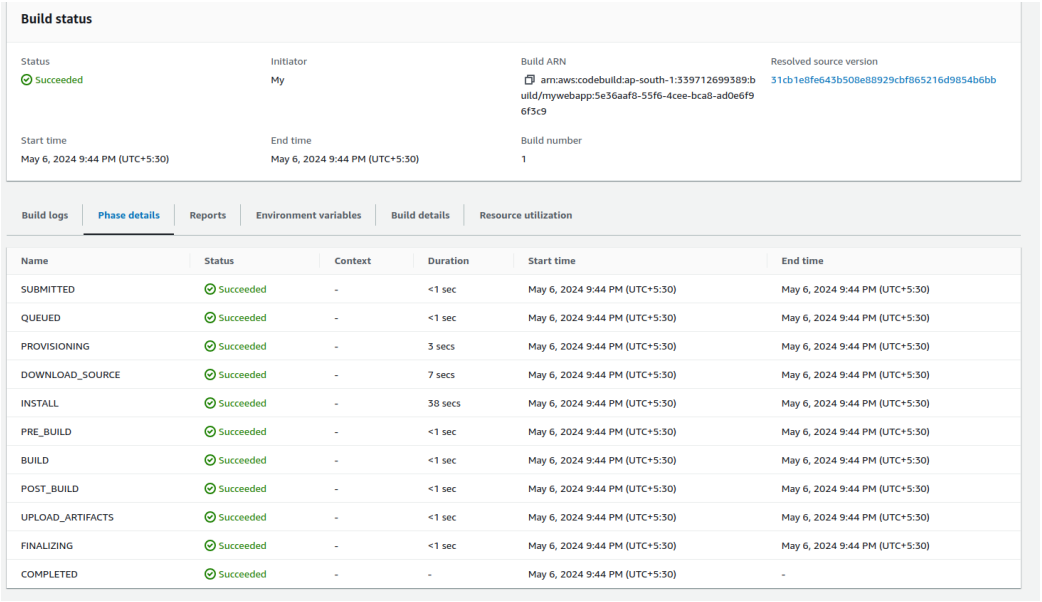
12.Choosing Logs



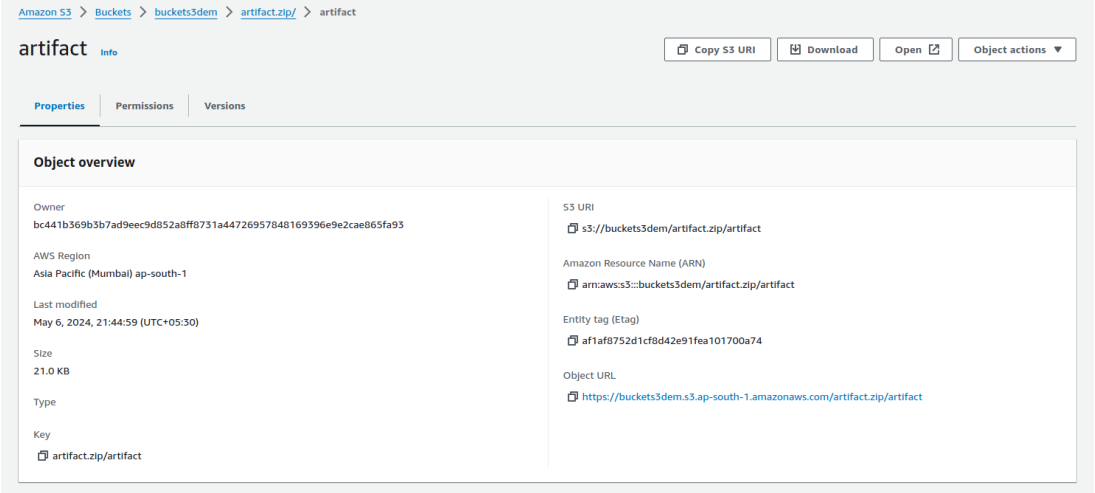
13.Created Build Project



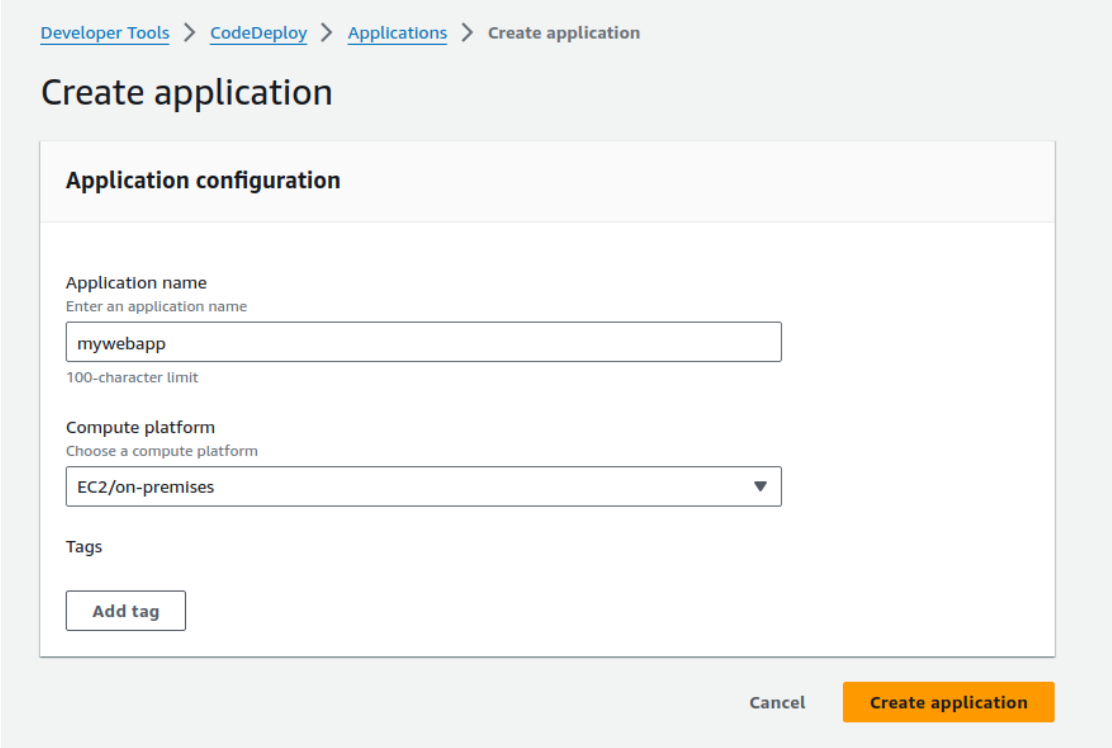
14.Build Triggered and Successful



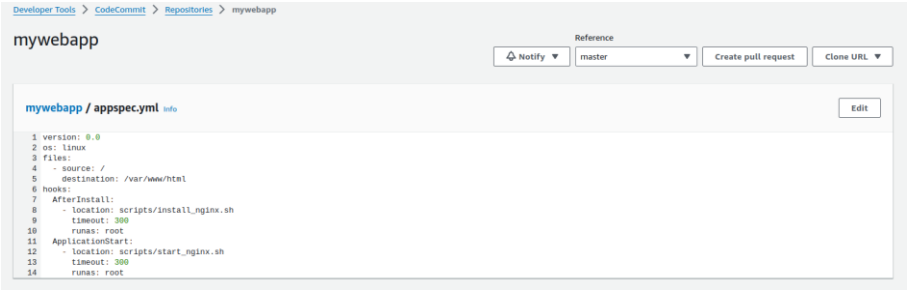
15.Artifact stored in the Given S3 Bucket



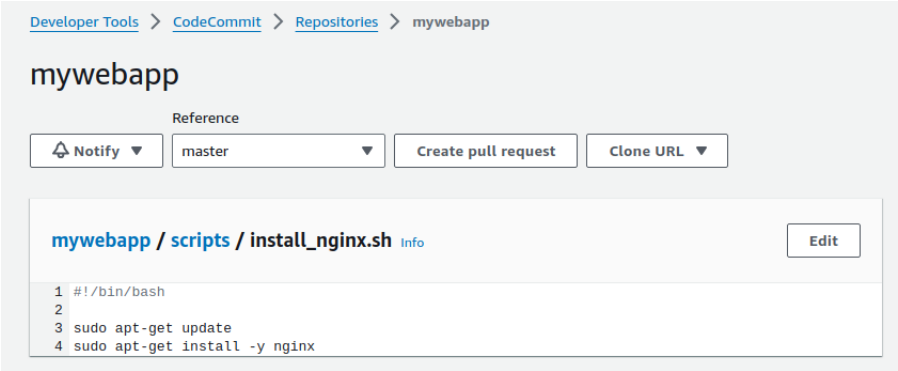
16.Creating Application

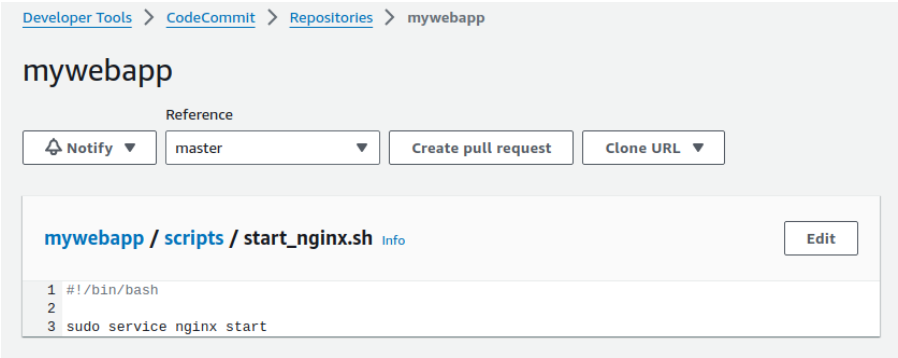


17.nginx Appspec file

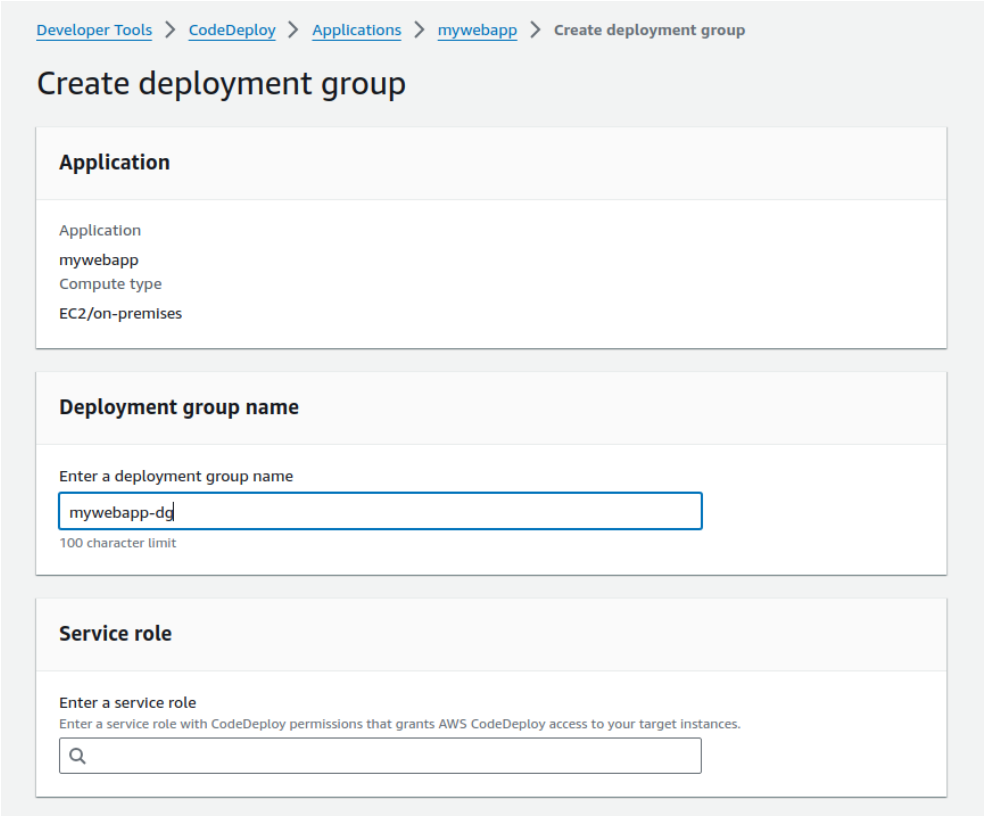


18. nginx Files

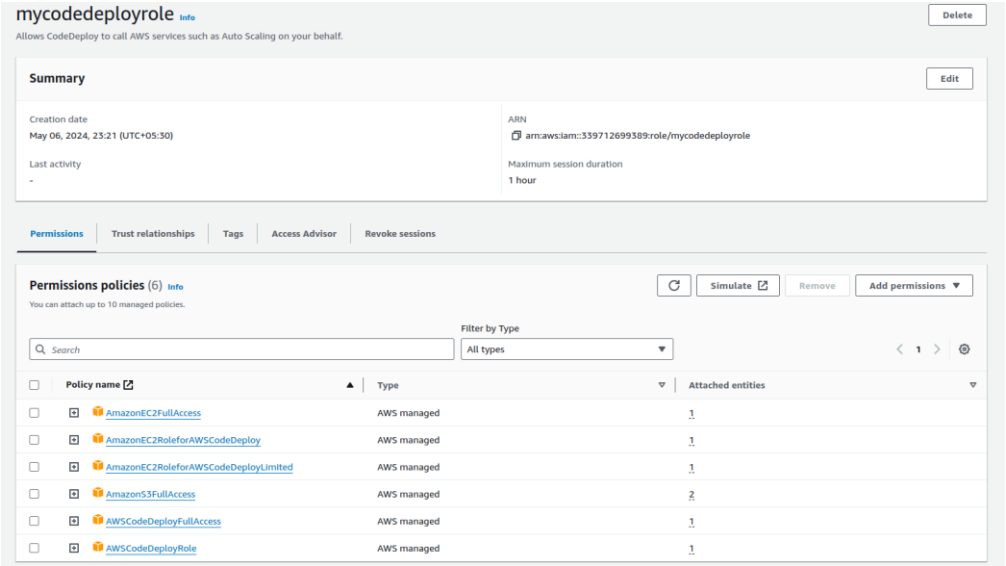




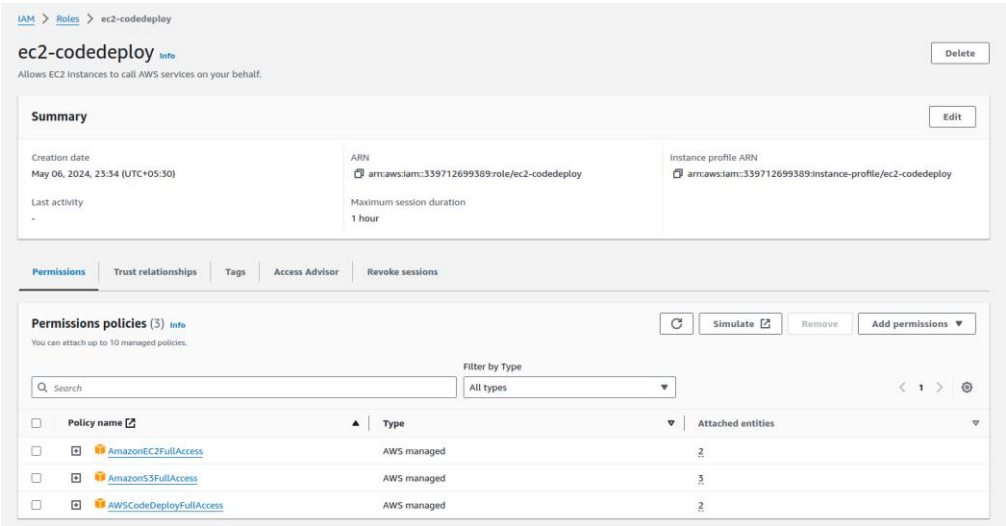
19.Creating Deployment Group



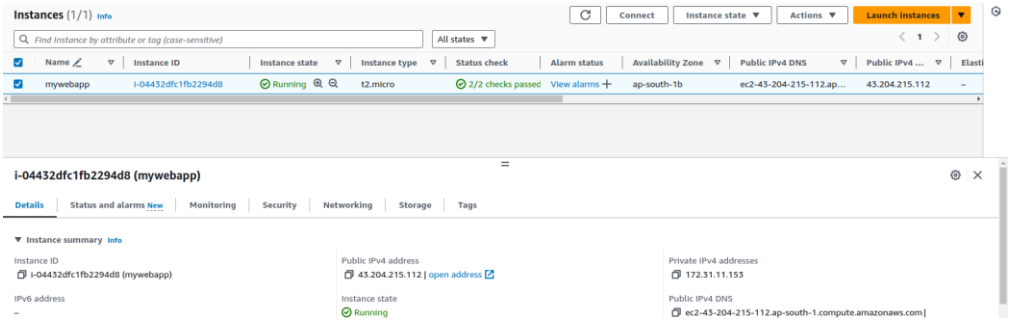
20.Creating Role for Code Deployment



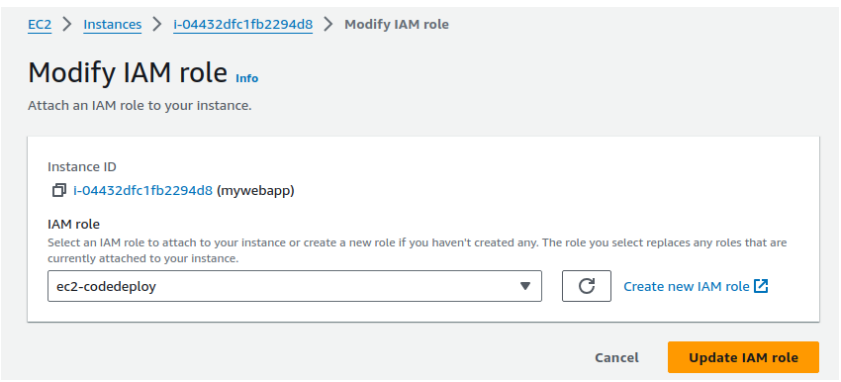
21.Creating Role for EC2 Code Deployment



22.EC2 Instance Created for Deployment



23.Role added to the EC2



24.EC2 Machine Launched and Creating Script file for Installing CodeDeploy agent in EC2

```
  GNU nano 7.2                                                    install.sh *
#!/bin/bash
# This installs the CodeDeploy agent and its prerequisites on Ubuntu 22.04.
sudo apt-get update
sudo apt-get install ruby-full ruby-webrick wget -y
cd /tmp
wget https://aws-codedeploy-ap-south-1.s3.ap-south-1.amazonaws.com/releases/codedeploy-agent_1.3.2-1902_all.deb
mkdir codedeploy-agent_1.3.2-1902_ubuntu22
dpkg-deb -R codedeploy-agent_1.3.2-1902_all.deb codedeploy-agent_1.3.2-1902_ubuntu22
sed 's/Depends:.*/Depends:ruby3.0/' -i ./codedeploy-agent_1.3.2-1902_ubuntu22/DEBIAN/control
dpkg-deb -b codedeploy-agent_1.3.2-1902_ubuntu22/
sudo dpkg -i codedeploy-agent_1.3.2-1902_ubuntu22.deb
systemctl list-units --type=service | grep codedeploy
sudo service codedeploy-agent status
```

25.Installation Triggered with Script file

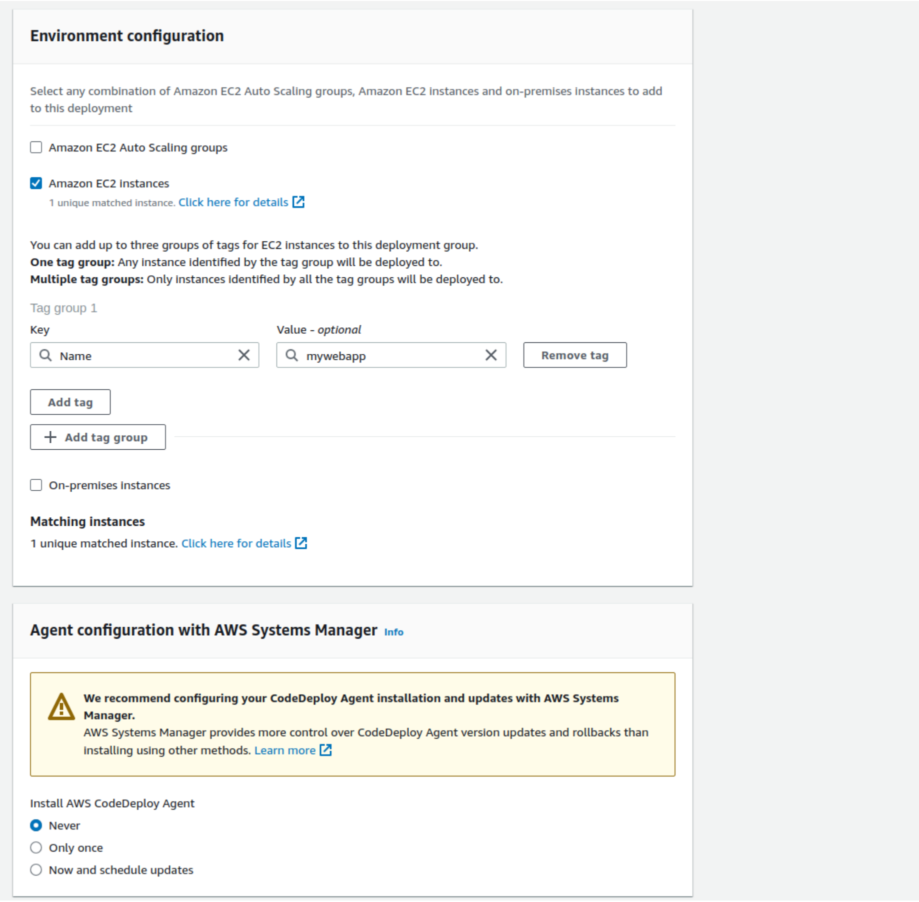
```
ubuntu@ip-172-31-4-161:~$ nano install.sh
ubuntu@ip-172-31-4-161:~$ sudo chmod +x install.sh
ubuntu@ip-172-31-4-161:~$ ls -ltr
total 4
-rwxrwxr-x 1 ubuntu ubuntu 697 May  7 08:51 install.sh
ubuntu@ip-172-31-4-161:~$ ./install.sh
Hit:1 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy InRelease
Hit:2 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates InRelease
Hit:3 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports InRelease
Hit:4 http://security.ubuntu.com/ubuntu jammy-security InRelease
Reading package lists... Done
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
```

26.CodeDeploy Agent installed in Running Up

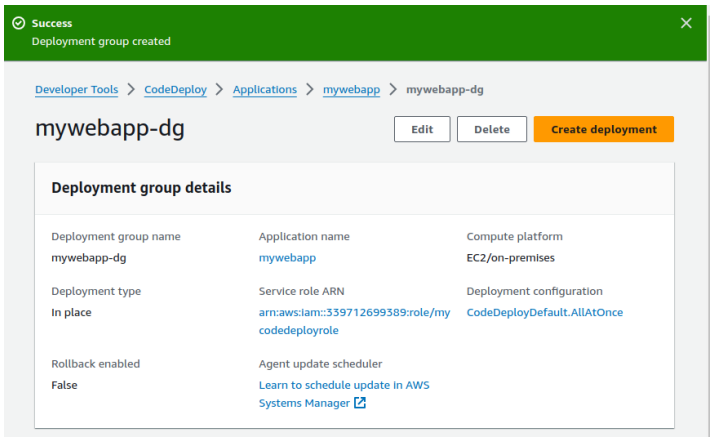
```
dpkg-deb: building package 'codedeploy-agent' in 'codedeploy-agent_1.3.2-1902_ubuntu22.deb'.
Selecting previously unselected package codedeploy-agent.
(Reading database ... 111939 files and directories currently installed.)
Preparing to unpack codedeploy-agent_1.3.2-1902_ubuntu22.deb ...
Unpacking codedeploy-agent (1.3.2-1902) ...
Setting up codedeploy-agent (1.3.2-1902) ...
codedeploy-agent.service is not a native service, redirecting to systemd-sysv-install.
Executing: /lib/systemd/systemd-sysv-install enable codedeploy-agent
  codedeploy-agent.service                              loaded active running LSB: AWS CodeDeploy Host Agent
● codedeploy-agent.service - LSB: AWS CodeDeploy Host Agent
     Loaded: loaded (/etc/init.d/codedeploy-agent; generated)
     Active: active (running) since Tue 2024-05-07 08:53:00 UTC; 81ms ago
       Docs: man:systemd-sysv-generator(8)
    Process: 14579 ExecStart=/etc/init.d/codedeploy-agent start (code=exited, status=0/SUCCESS)
      Tasks: 2 (limit: 1121)
     Memory: 32.8M
        CPU: 545ms
     CGroup: /system.slice/codedeploy-agent.service
             ├─14585 "codedeploy-agent: master 14585" "" "" "" "" "" "" "" "" "" "" "" "" "" "" "" "" "" "" "" "" "" "" "" ">
             └─14587 "codedeploy-agent: booting child" "" "" "" "" "" "" "" "" "" "" "" "" "" "" "" "" "" "" "" "" "" "" ">

May 07 08:53:00 ip-172-31-4-161 systemd[1]: Starting LSB: AWS CodeDeploy Host Agent...
May 07 08:53:00 ip-172-31-4-161 codedeploy-agent[14579]: Starting codedeploy-agent:
May 07 08:53:00 ip-172-31-4-161 systemd[1]: Started LSB: AWS CodeDeploy Host Agent.
lines 1-15/15 (END)ubuntu@ip-172-31-4-161:~$
ubuntu@ip-172-31-4-161:~$
```

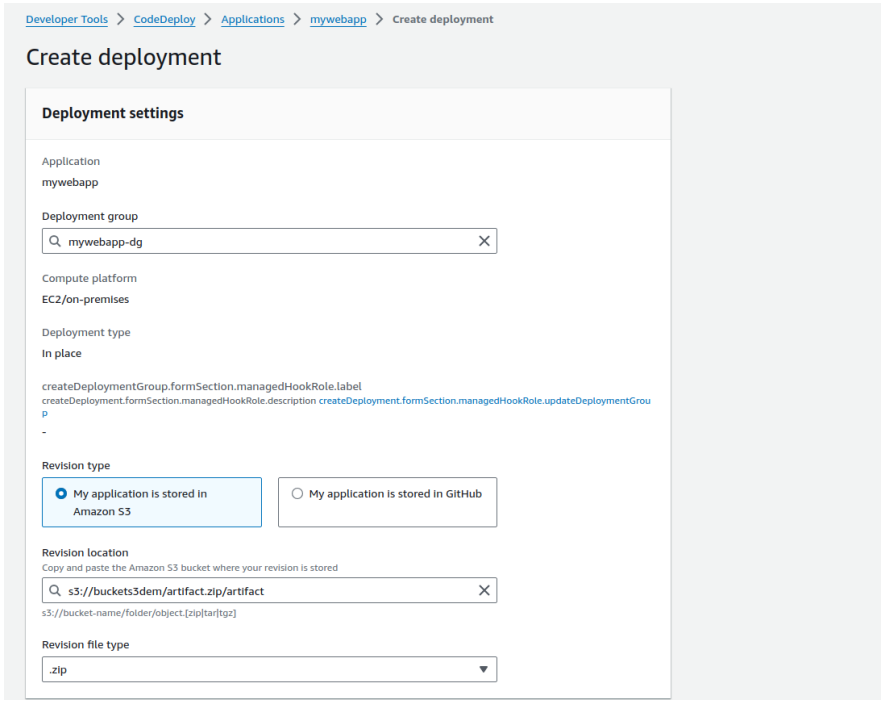
27.Setting environment for Deploy with Created EC2



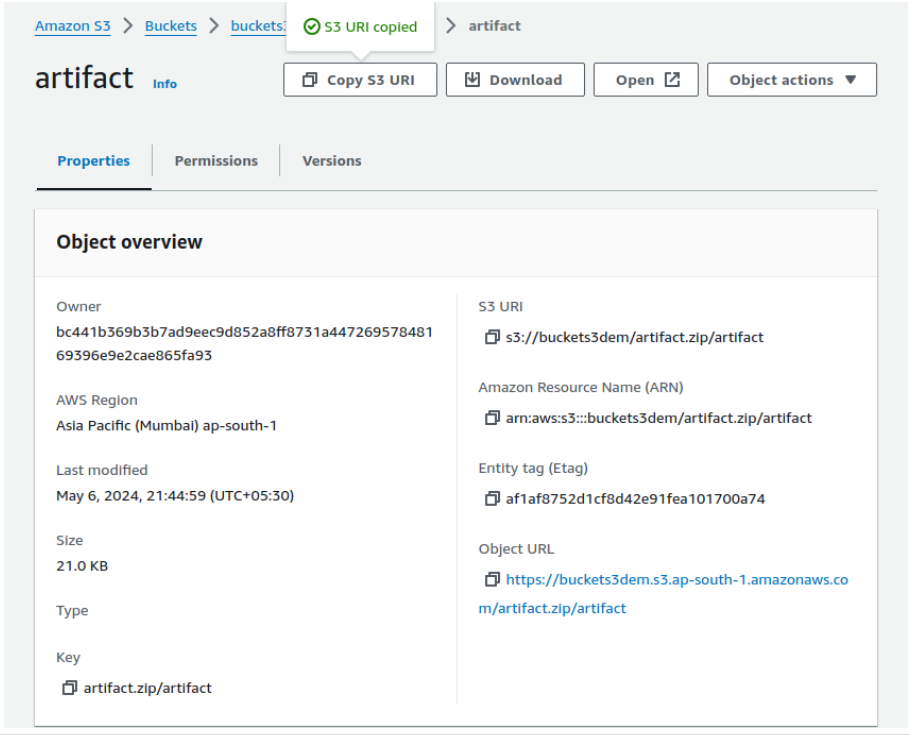
28.Deployment Group Created



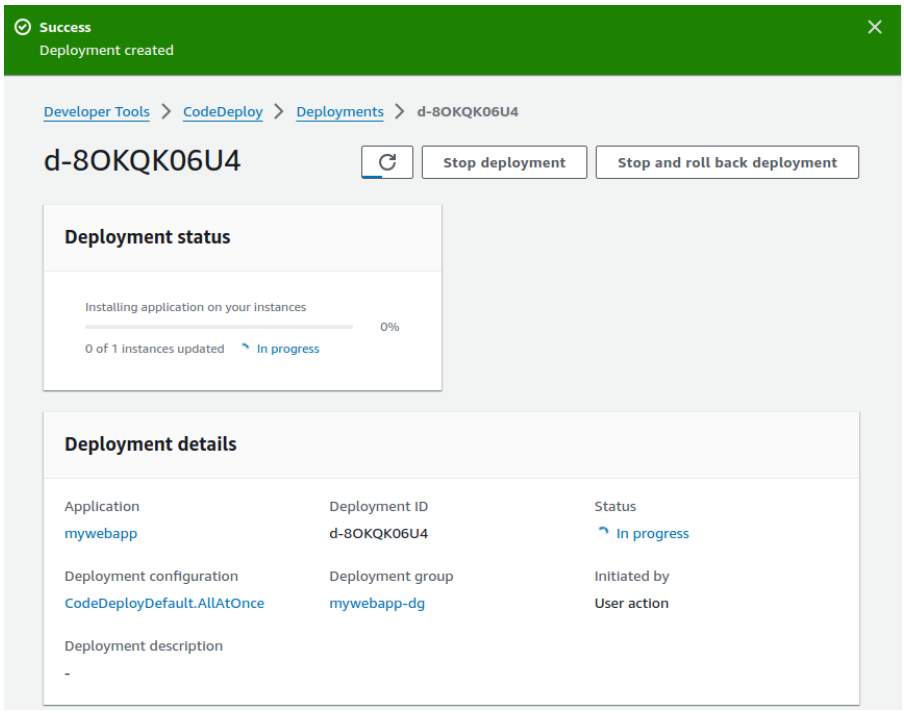
29.Creating Deployment



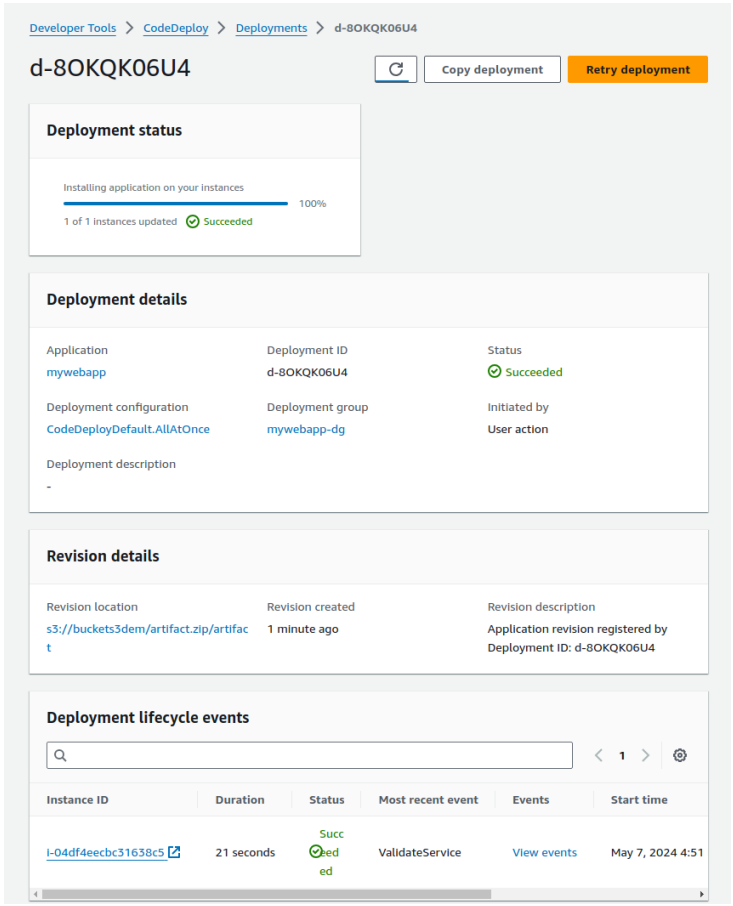
30.S3 Bucket Artifact location copied for revision



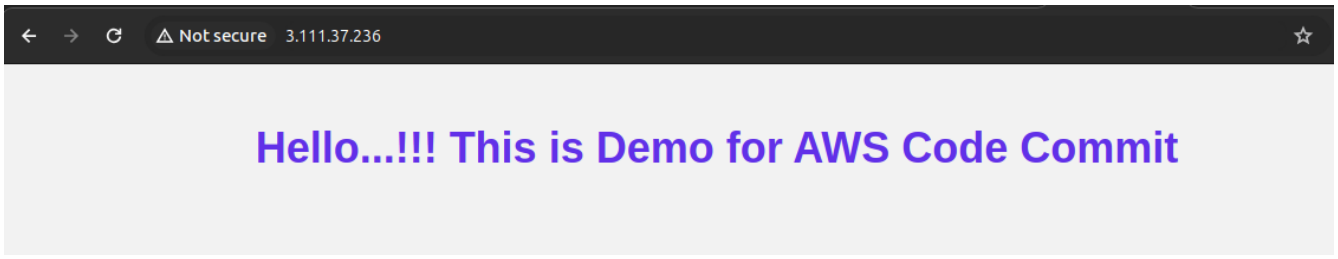
31.Deployament Created and Triggered



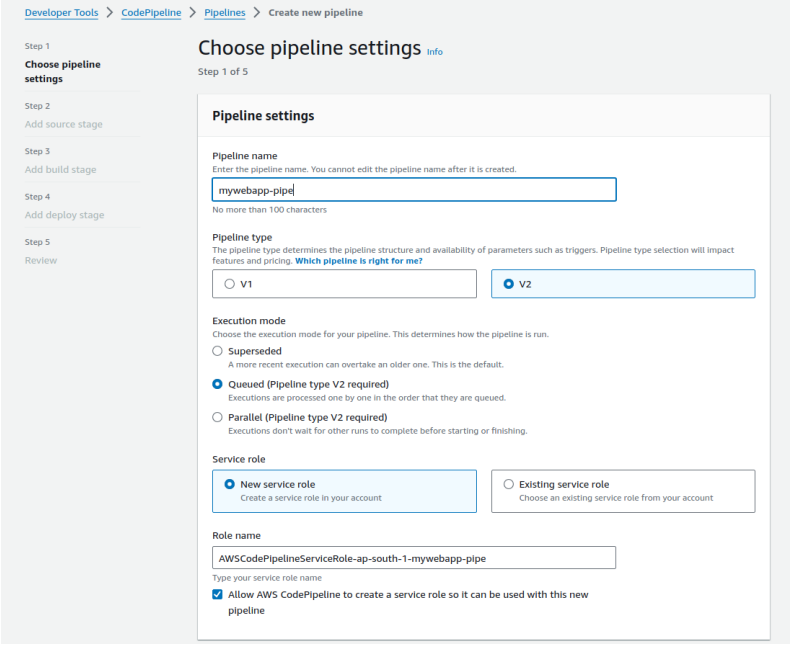
32.Deployment Done Successful



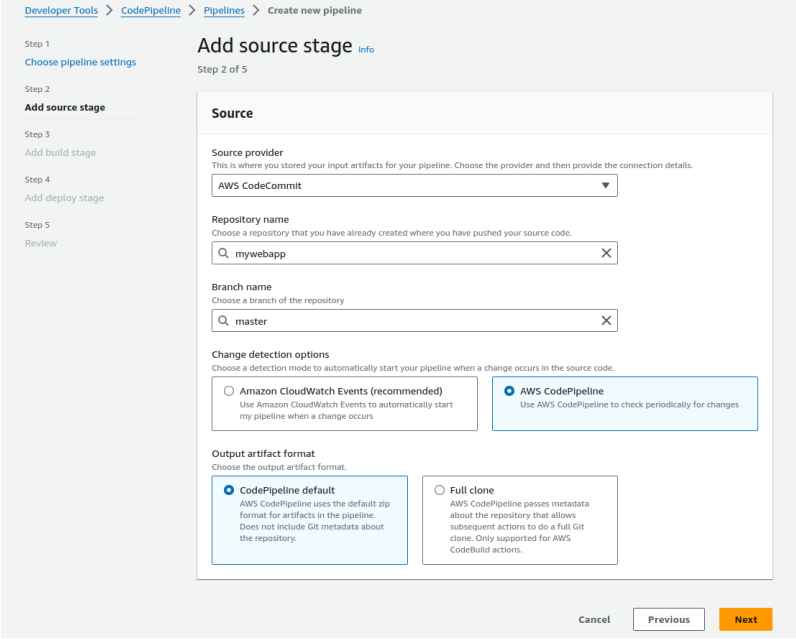
33.Our nginx Application is Running in EC2's Port 80



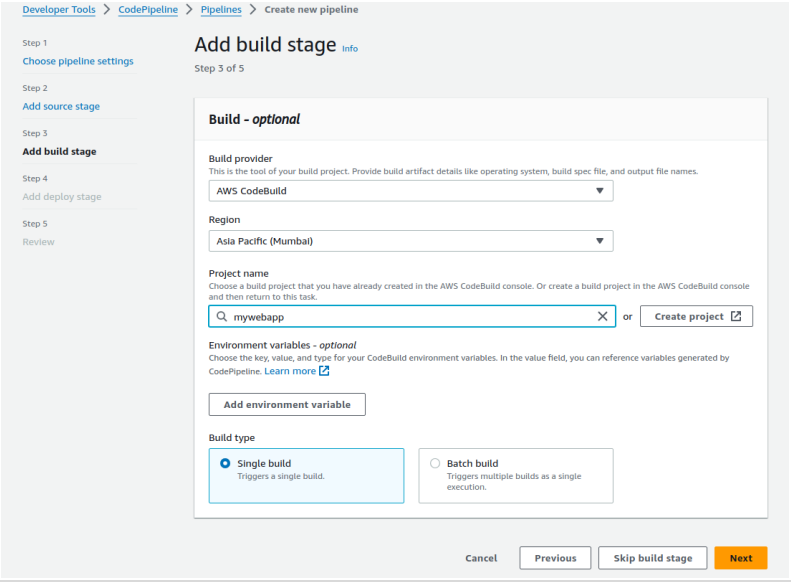
34.Creating Pipeline settings



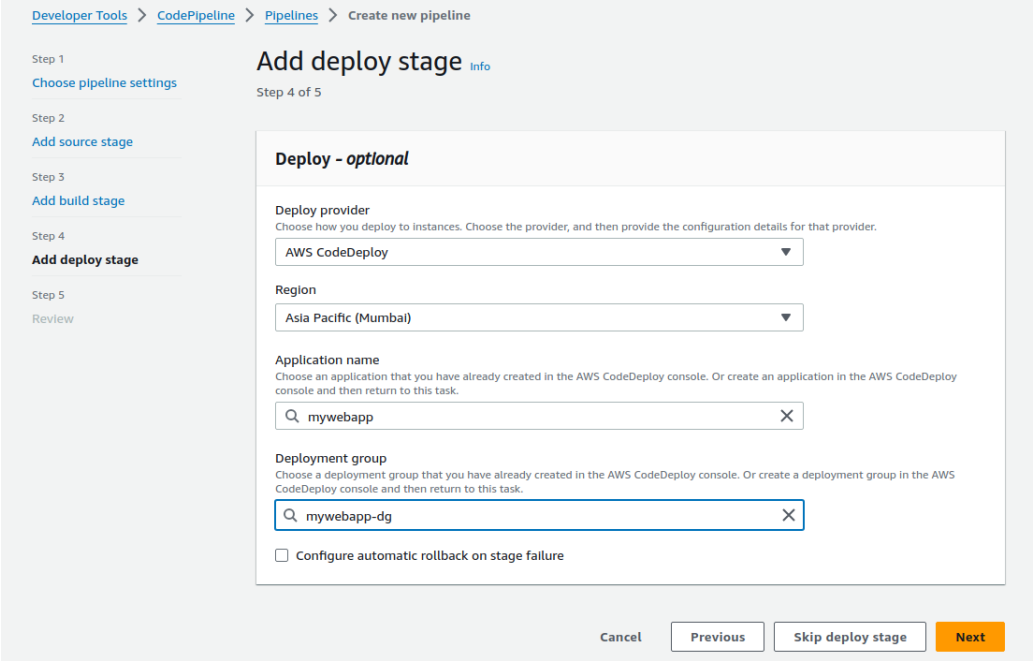
35.Adding Source Stage



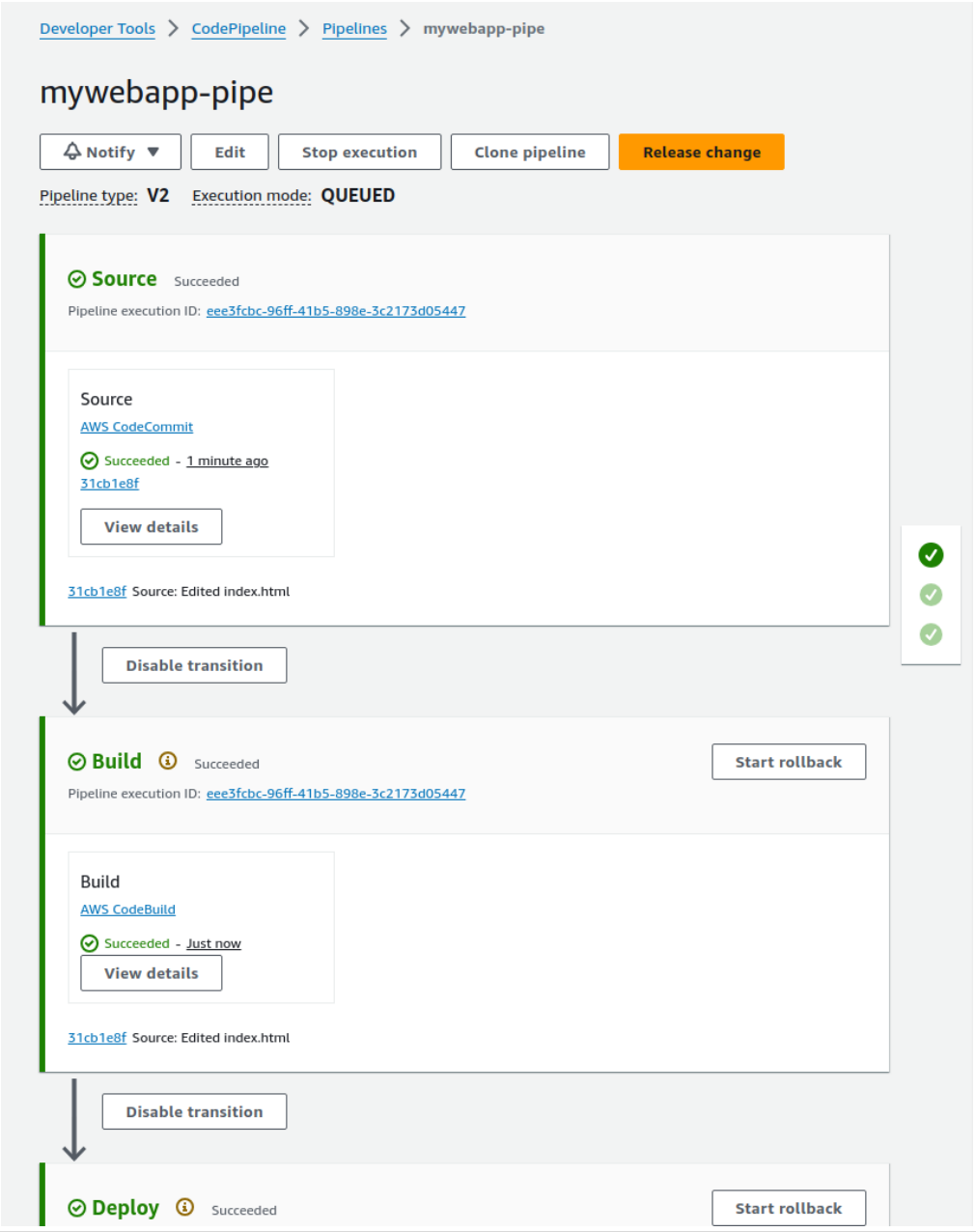
36.Adding Build Stage



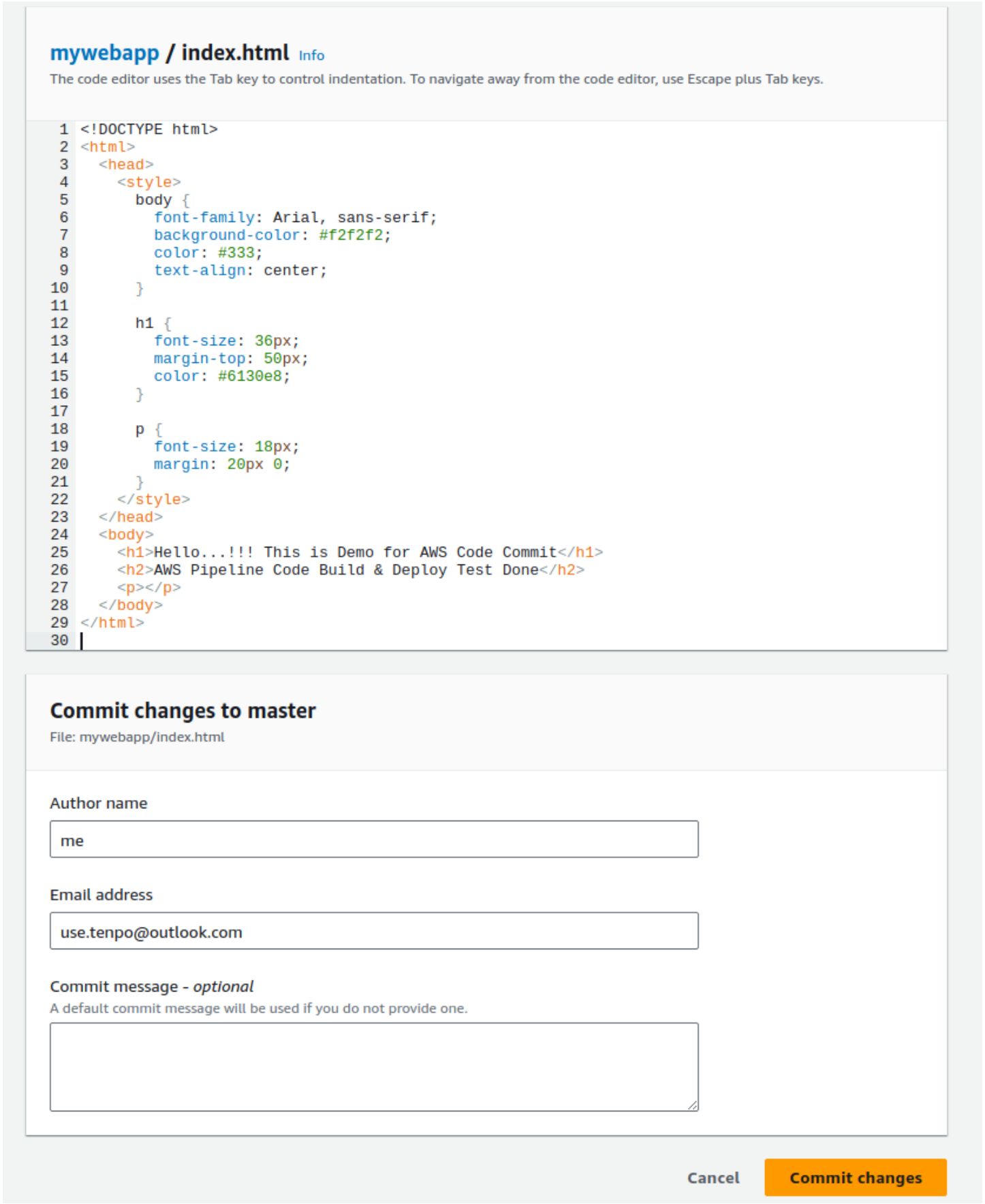
37.Adding Deploy Stage



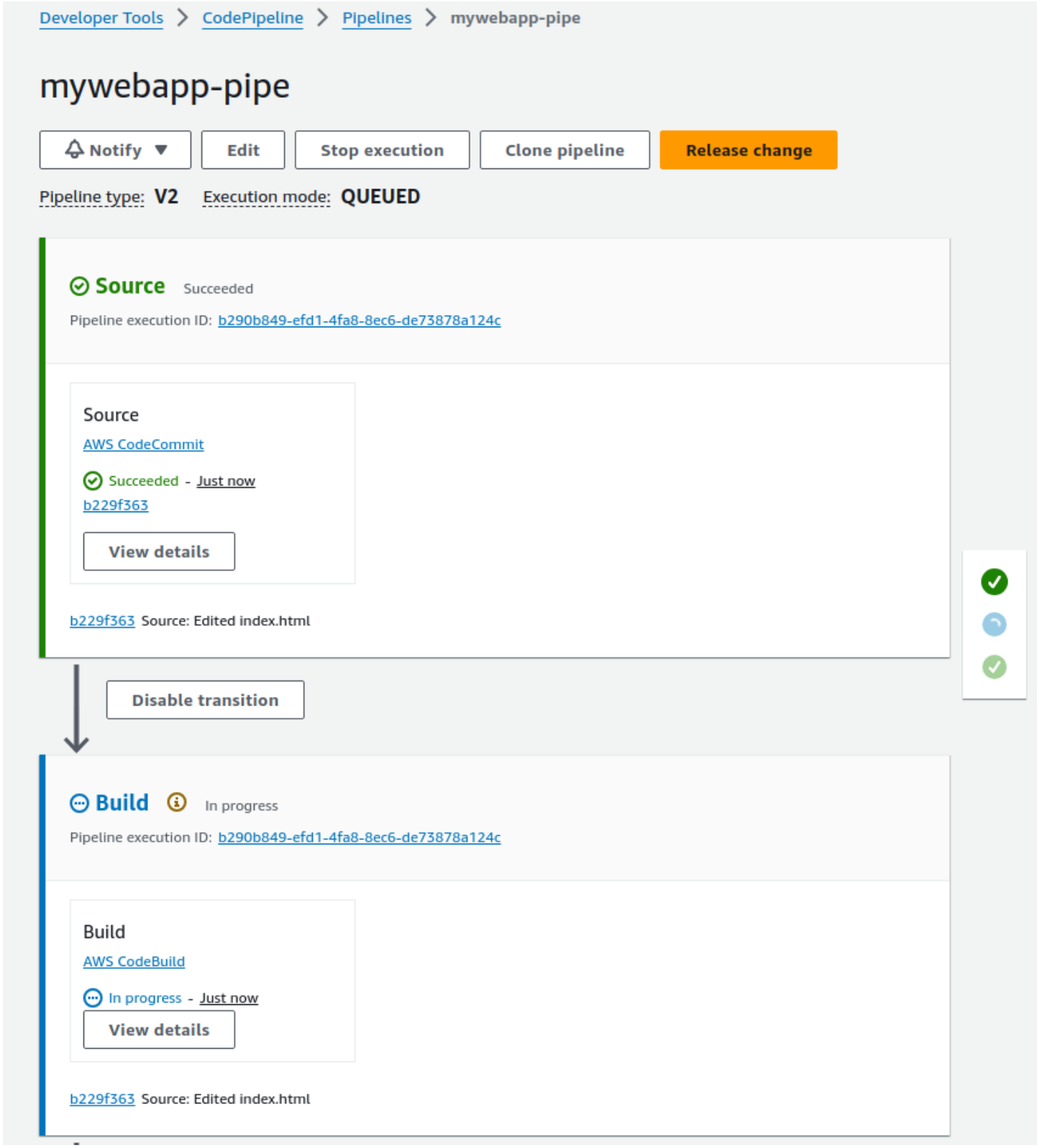
38.Pipeline Tiggered automatically and Deployed



39.New Commits made to Application in Repository



40.Pipeline Triggered automatically after commit made in Repository



41.Output of New Nginx Application changes deployed by Pipeline