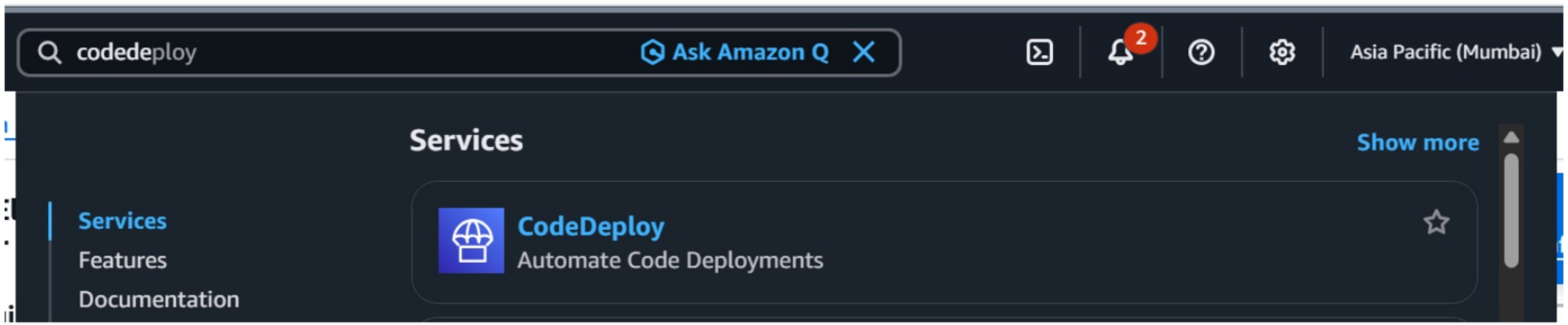
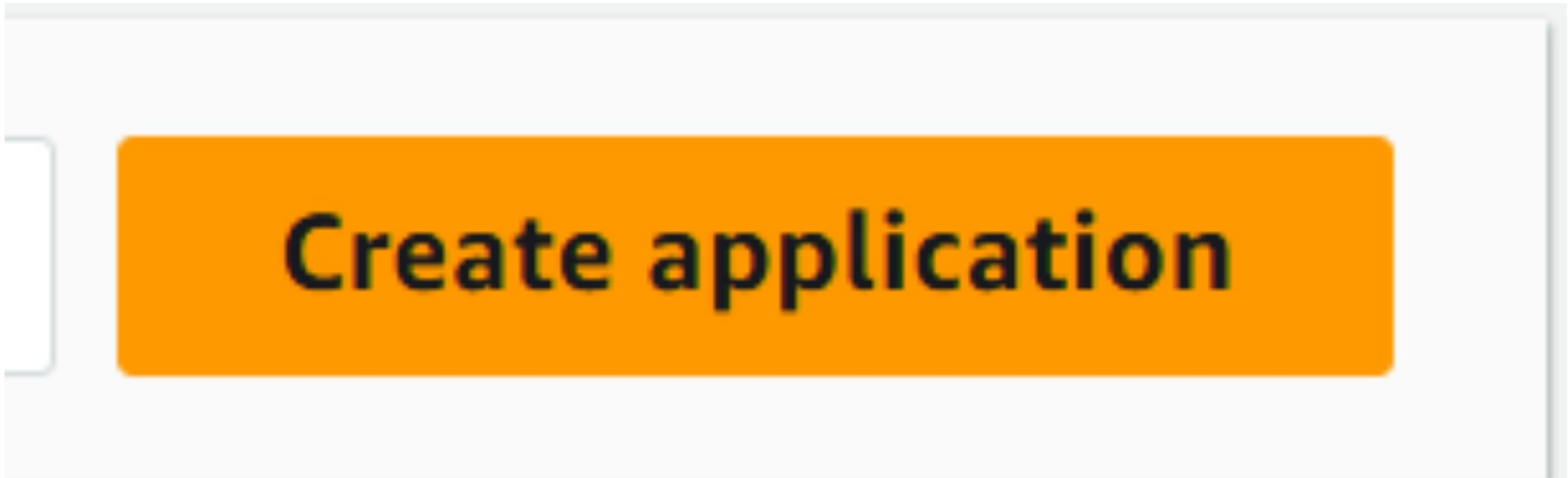
5. Creation of codedeploy application

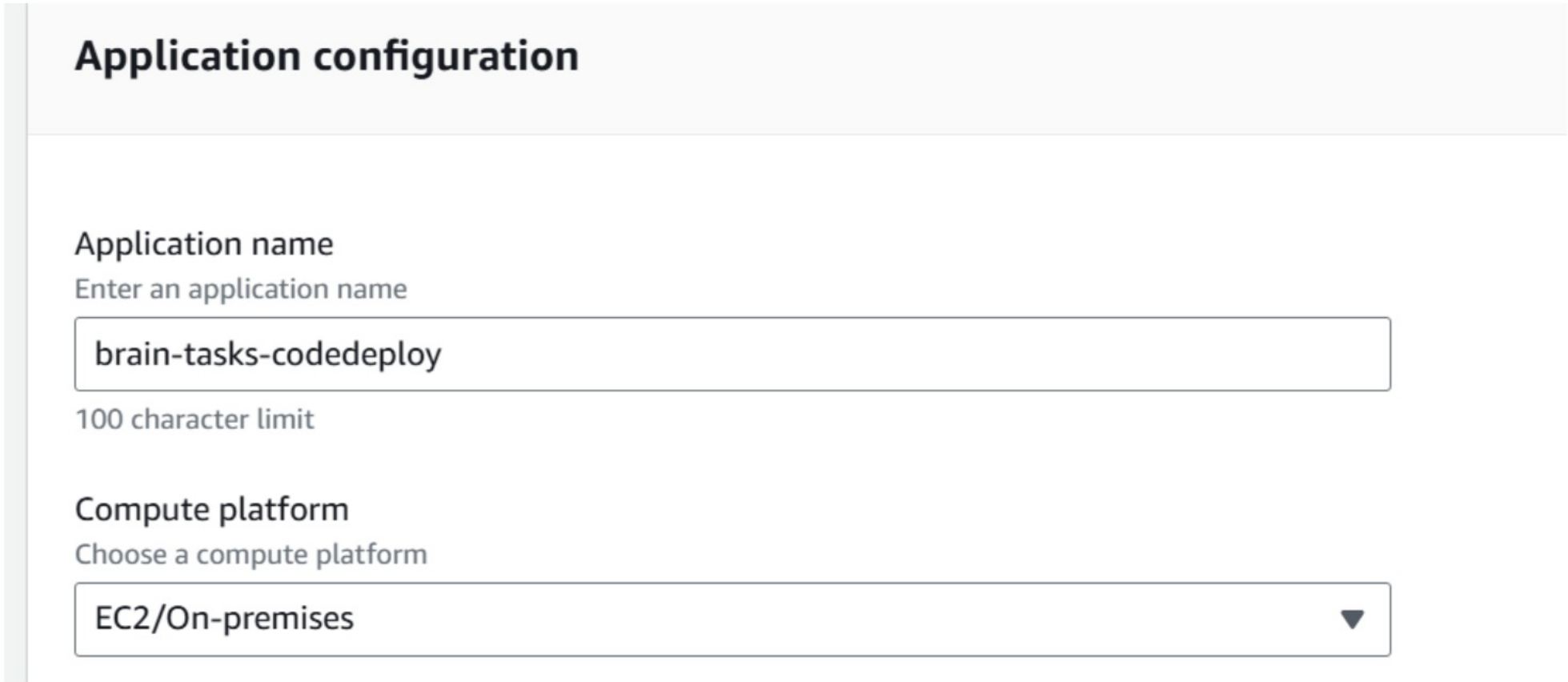
1. Go to codedeploy page



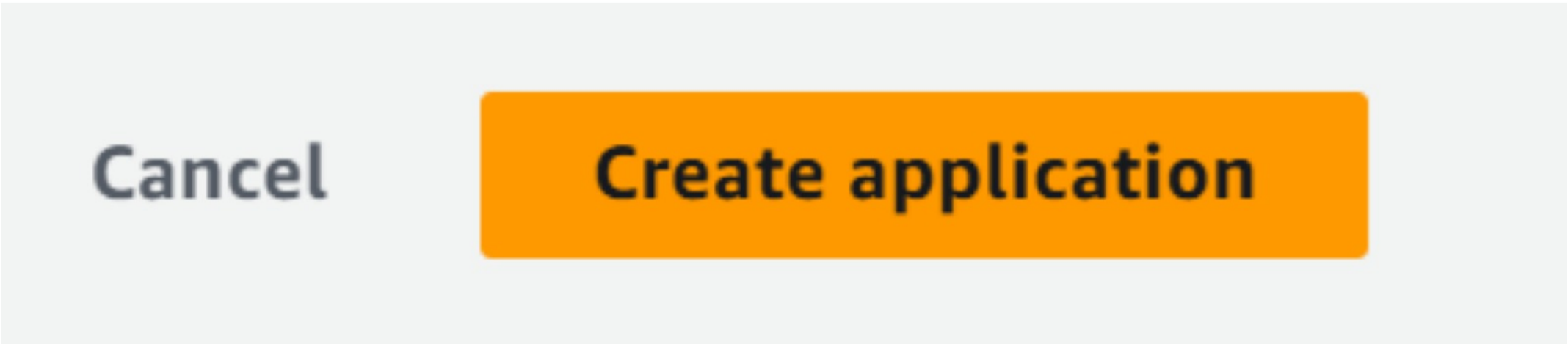
2. Click on create application button



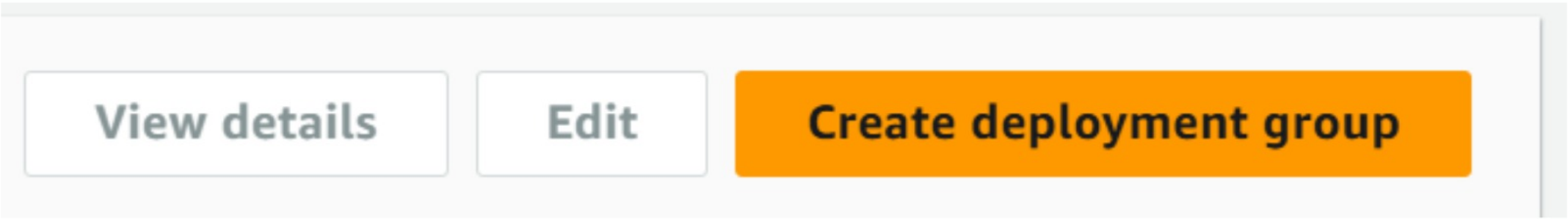
3. Name the application and choose ec2 as a compute platform



4. Now click on create option



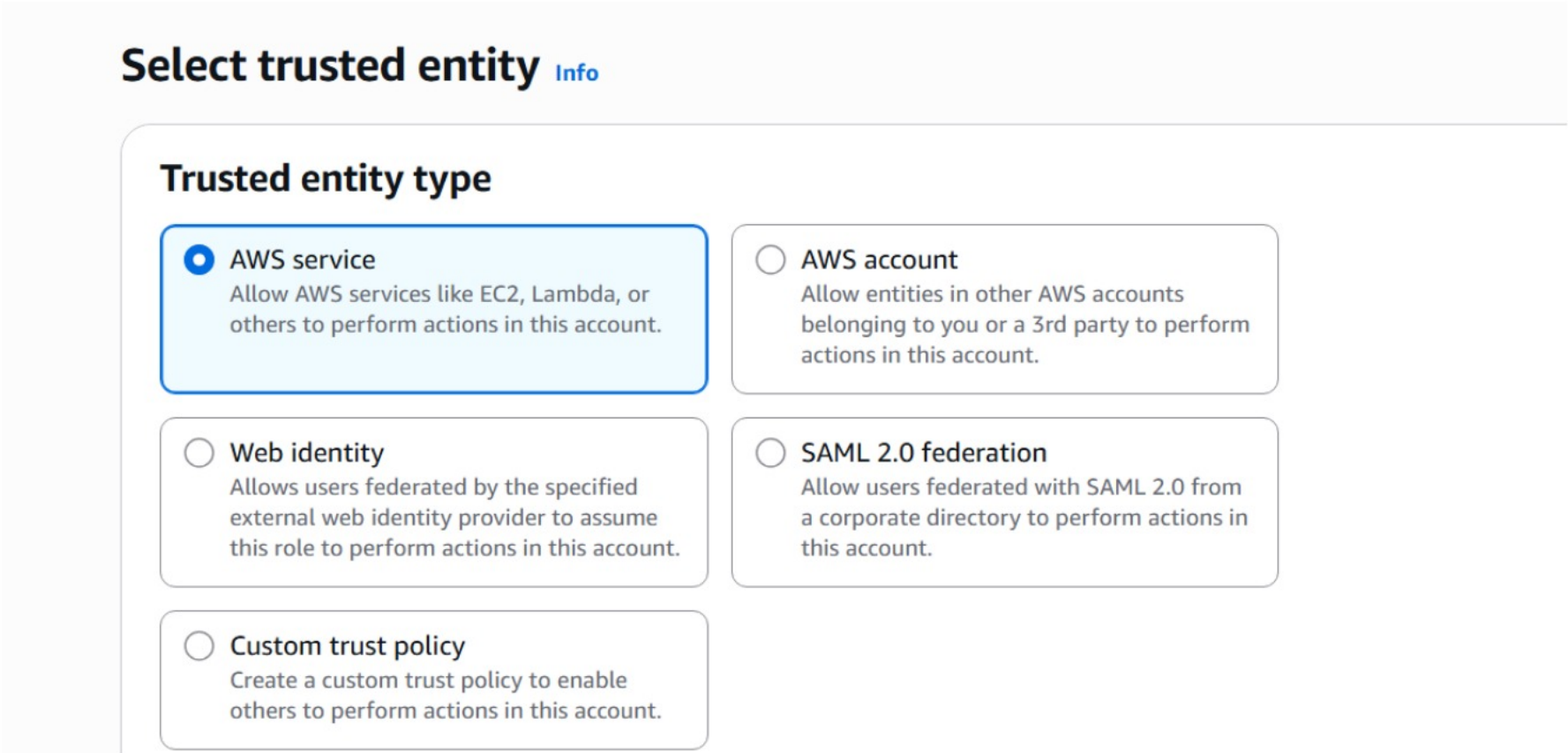
5. Now create deployment group



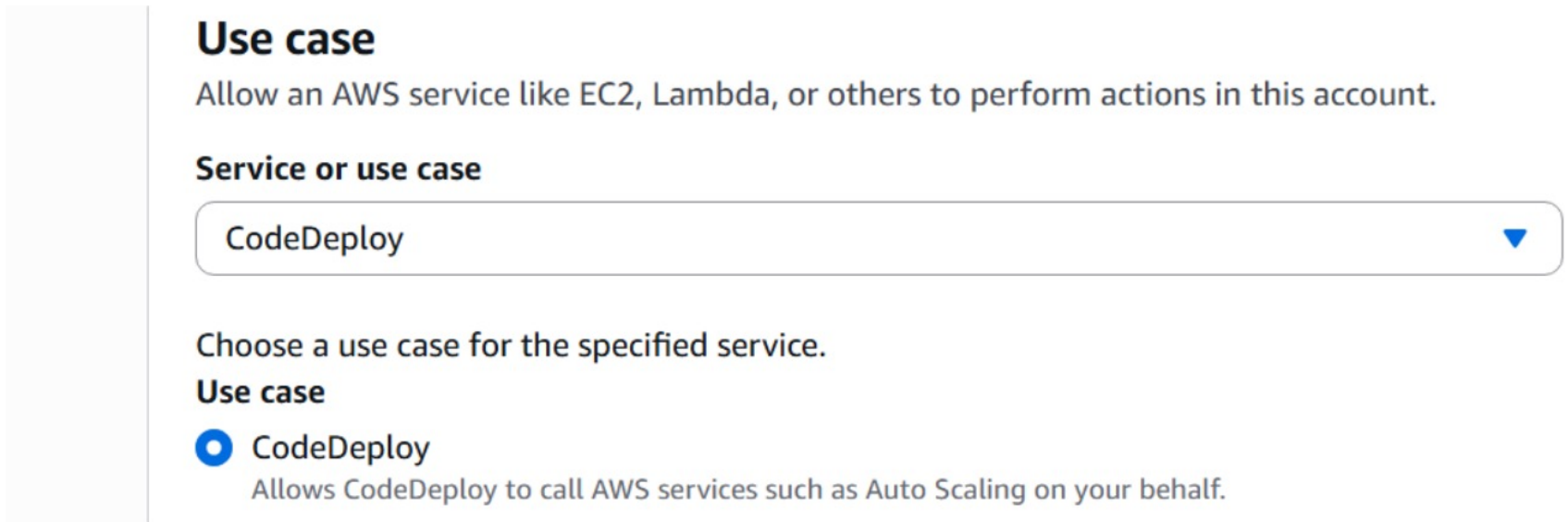
6. Give name to deployment group

7. Now create service role

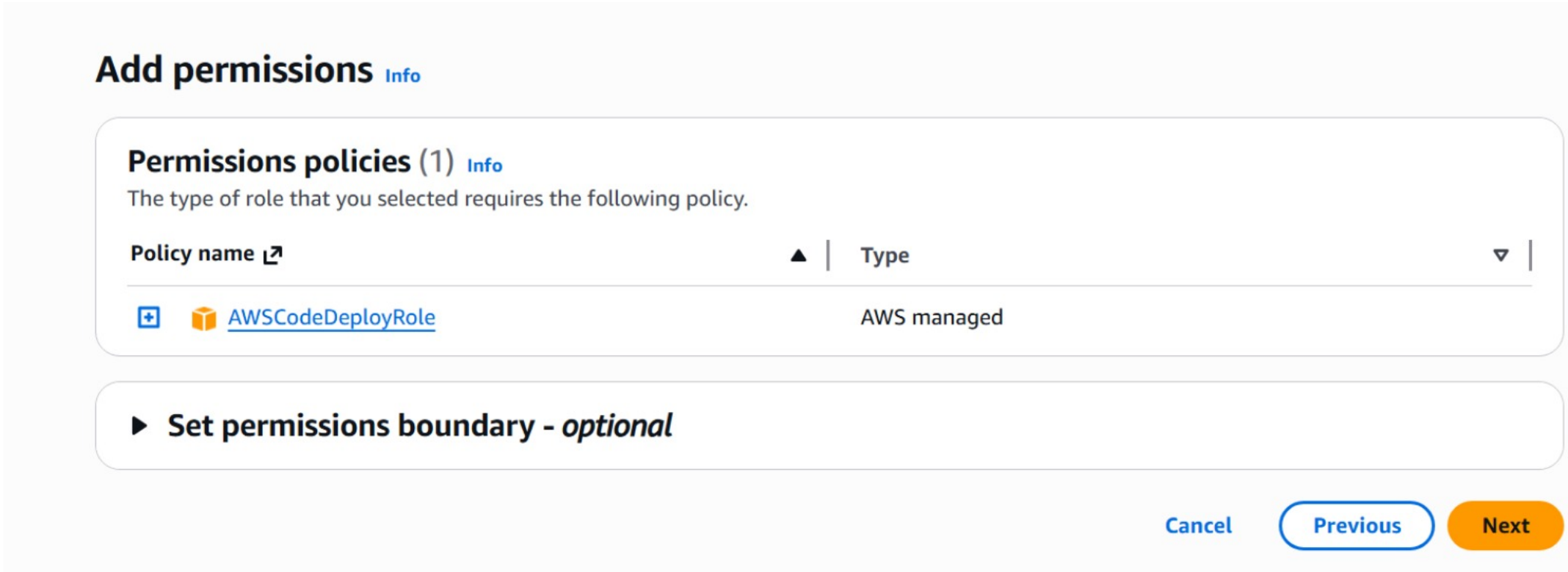
8. Select aws service as trusted identity



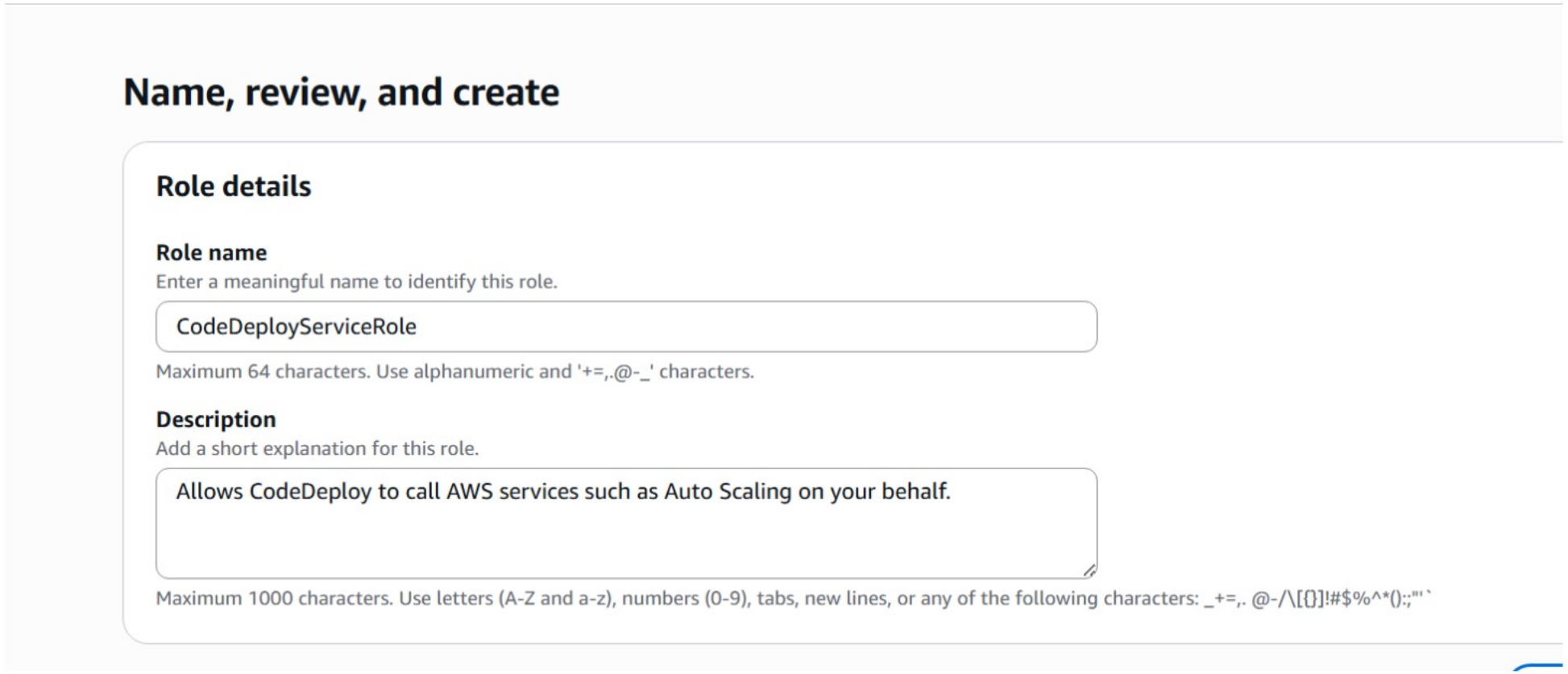
9. Choose use case "codedeploy"



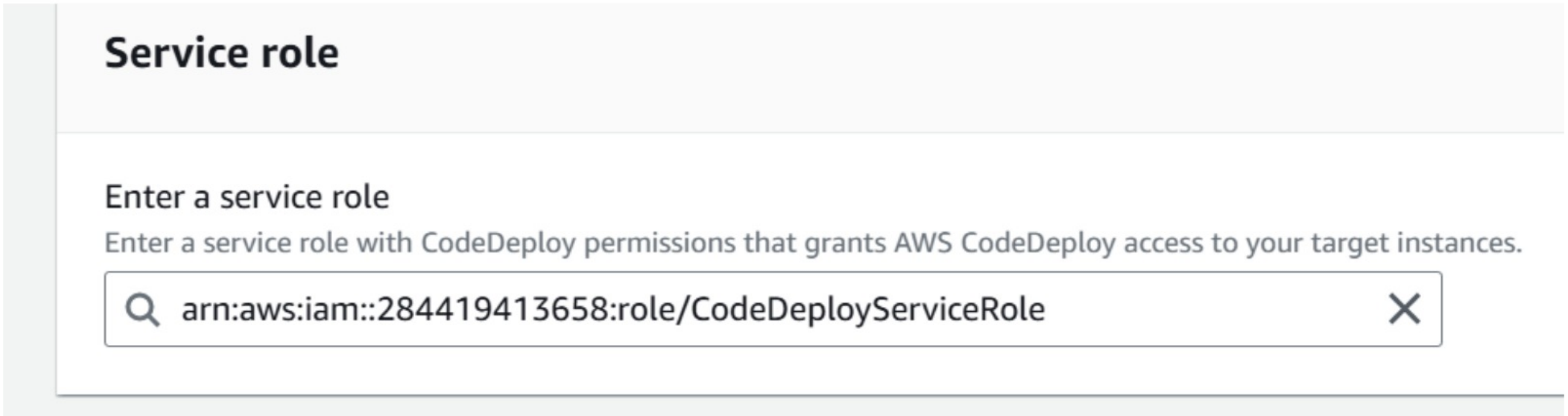
10. Add required permissions



11. Give name to role



12. Add role to codedeploy



13. Create appspec file

```
ubuntu@ip-172-31-3-167:~/Brain-Tasks-App$ nano appsepc.yml
```

14. Enter after install configs in the file

```
  GNU nano 7.2                                                  appsepc.yml *
version: 0.0
os: linux

hooks:
  AfterInstall:
    - location: scripts/deploy.sh
      timeout: 300
      runas: root
```

15. Commit and Push the file to github

```
ubuntu@ip-172-31-3-167:~/Brain-Tasks-App$ git push origin main
Enumerating objects: 7, done.
Counting objects: 100% (7/7), done.
Delta compression using up to 2 threads
Compressing objects: 100% (5/5), done.
Writing objects: 100% (5/5), 678 bytes | 678.00 KiB/s, done.
Total 5 (delta 2), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (2/2), completed with 1 local object.
To https://github.com/deepeshchandnani/Brain-Tasks-App.git
   96f71c3..7454a99  main -> main
ubuntu@ip-172-31-3-167:~/Brain-Tasks-App$
```

16. Create mkdir script in repo

```
ubuntu@ip-172-31-3-167:~/Brain-Tasks-App$ mkdir scripts
ubuntu@ip-172-31-3-167:~/Brain-Tasks-App$
```

17 create deploy file in the script directory

18. Enter kubernetes deployment commands in the file

GNU nano 7.2 scripts/deploy.sh *

```
#!/bin/bash
set -e

echo "Updating kubeconfig..."
aws eks update-kubeconfig \
  --region ap-south-1 \
  --name brain-eks

echo "Deploying to EKS..."
kubectl apply -f k8s/deployment.yaml
kubectl apply -f k8s/service.yaml

echo "Deployment completed"
```

19. Make the file executable

```
ubuntu@ip-172-31-3-167:~/Brain-Tasks-App$ chmod +x scripts/deploy.sh
ubuntu@ip-172-31-3-167:~/Brain-Tasks-App$
```

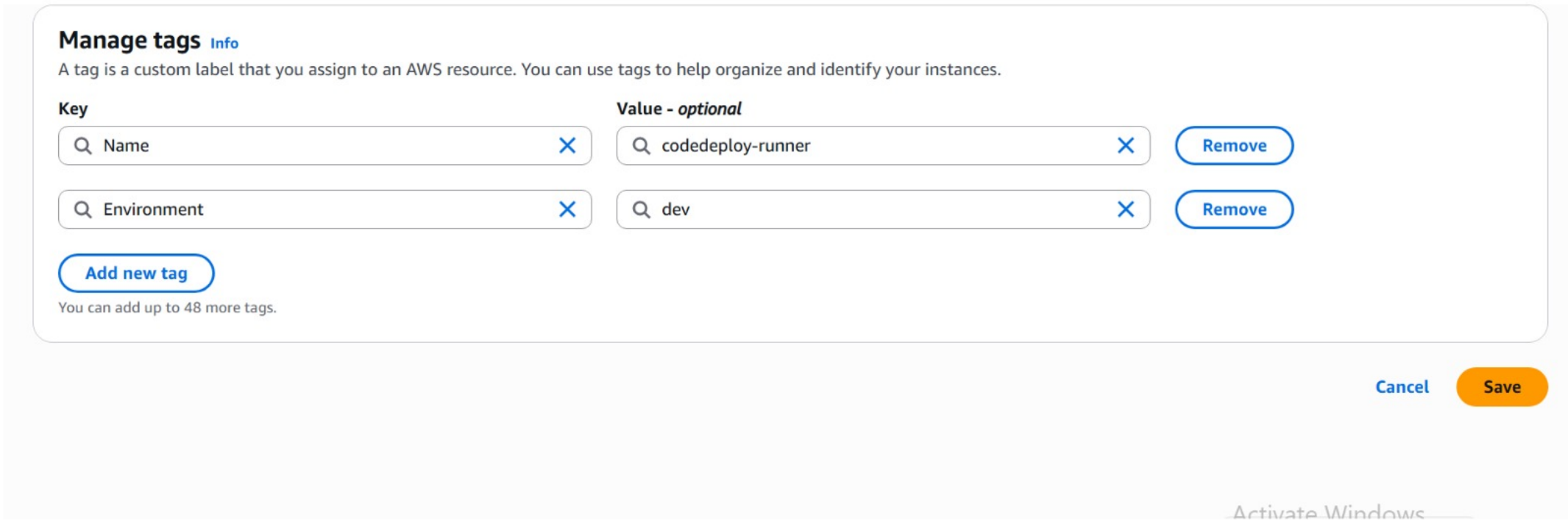
20. Commit and push the file to github

```
ubuntu@ip-172-31-3-167:~/Brain-Tasks-App$ git push origin main
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Delta compression using up to 2 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (4/4), 492 bytes | 492.00 KiB/s, done.
Total 4 (delta 1), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To https://github.com/deepeshchandnani/Brain-Tasks-App.git
   7454a99..e58ad4d  main -> main
ubuntu@ip-172-31-3-167:~/Brain-Tasks-App$
```

21. Launch an instance

22. Give name to instance

23. Add tags in the instance



24. Update packages

```
ubuntu@ip-172-31-10-69:~$ sudo apt update -y
```

25. Install aws codedeploy agent

```
ubuntu@ip-172-31-10-69:~$ sudo apt install ruby wget -y
```

```
untu@ip-172-31-10-69:~$ wget https://aws-codedeploy-ap-south-1.s3.ap-south-1.amazonaws.com/latest/install
```

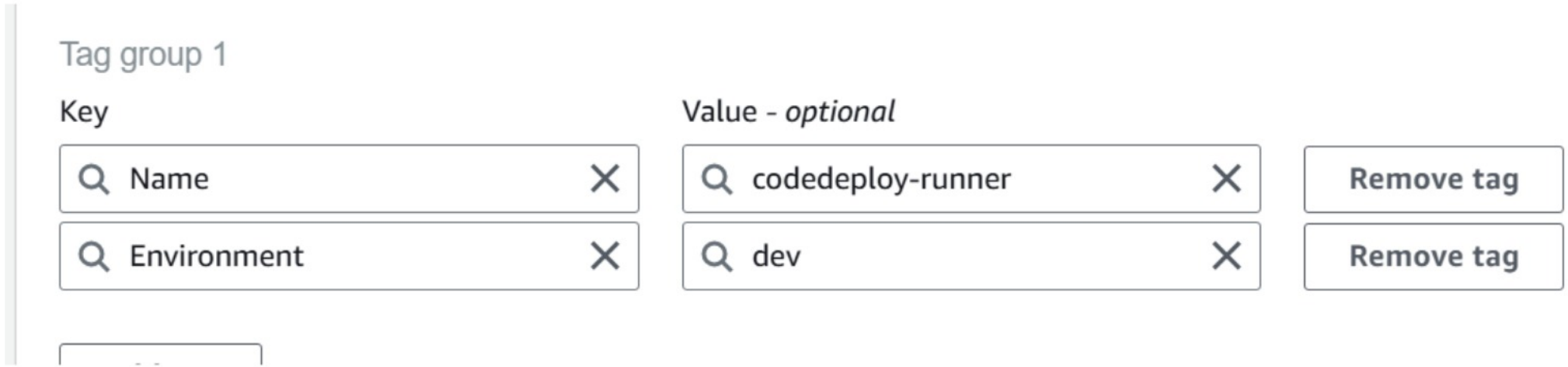
```
ubuntu@ip-172-31-10-69:~$ chmod +x install
ubuntu@ip-172-31-10-69:~$
```

```
buntu@ip-172-31-10-69:~$ sudo ./install auto
, [2025-12-18T17:03:42.173185 #2126]  INFO -- : Starting Ruby version check.
, [2025-12-18T17:03:42.173264 #2126]  WARN -- : The Ruby version in /usr/bin/ruby3.2 is 3.2.3, . Attempting to install anyway.
, [2025-12-18T17:03:42.173296 #2126]  INFO -- : Starting update check.
, [2025-12-18T17:03:42.173320 #2126]  INFO -- : Attempting to automatically detect supported package manager type for system...
, [2025-12-18T17:03:42.188651 #2126]  WARN -- : apt-get found but no gdebi. Installing gdebi with `apt-get install gdebi-core -y`...
```

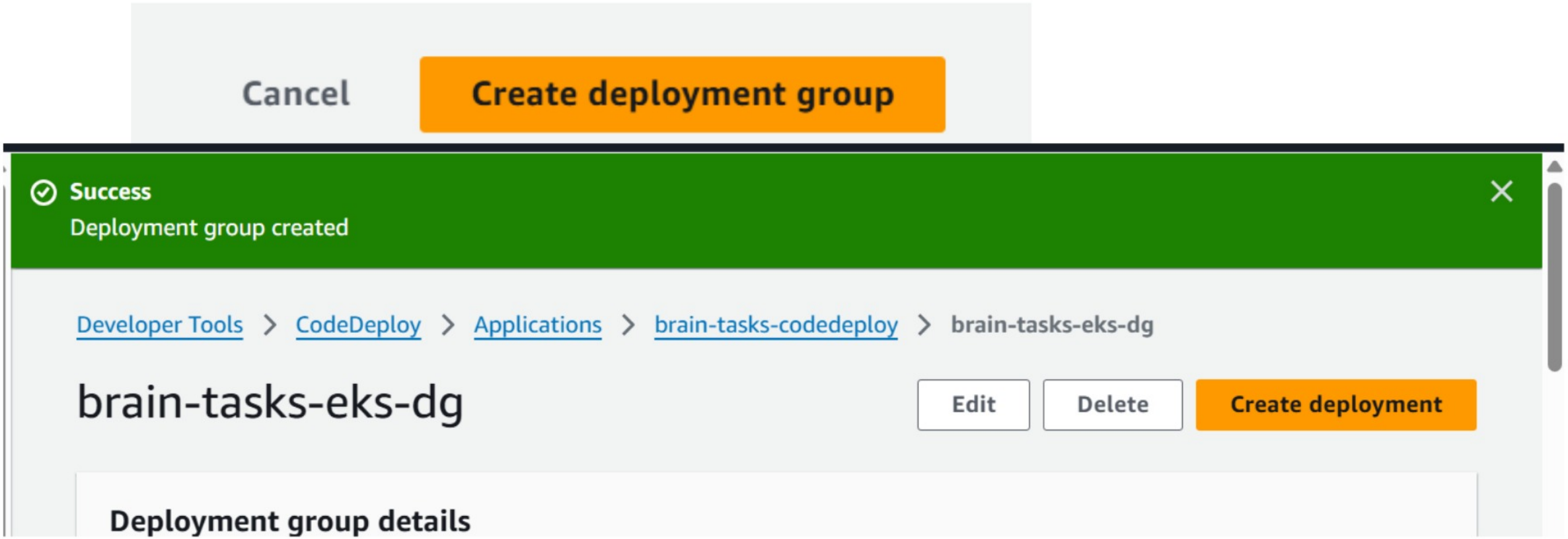
26. Start the agent

```
ubuntu@ip-172-31-10-69:~$ sudo systemctl start codedeploy-agent
ubuntu@ip-172-31-10-69:~$
ubuntu@ip-172-31-10-69:~$ sudo systemctl status codedeploy-agent
● codedeploy-agent.service - LSB: AWS CodeDeploy Host Agent
     Loaded: loaded (/etc/init.d/codedeploy-agent; generated)
     Active: active (running) since Thu 2025-12-18 17:03:52 UTC; 1min 25s ago
       Docs: man:systemd-sysv-generator(8)
    Process: 2409 ExecStart=/etc/init.d/codedeploy-agent start (code=exited, status=0/SUCCESS)
```

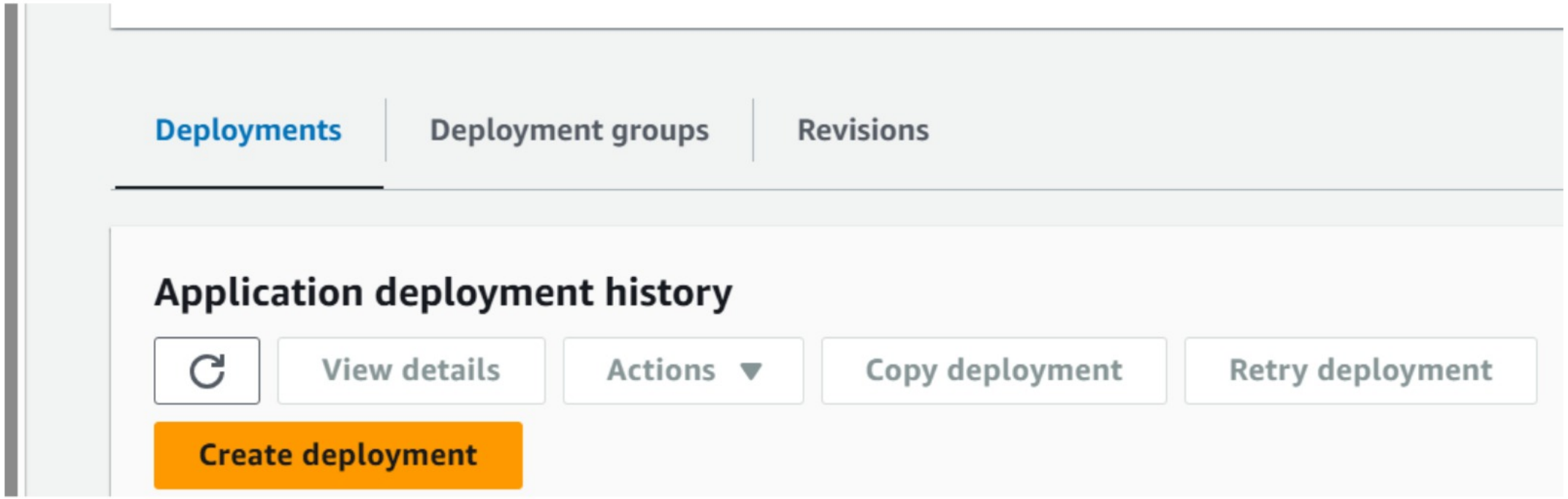
27. Add the same tags in the deployment group page



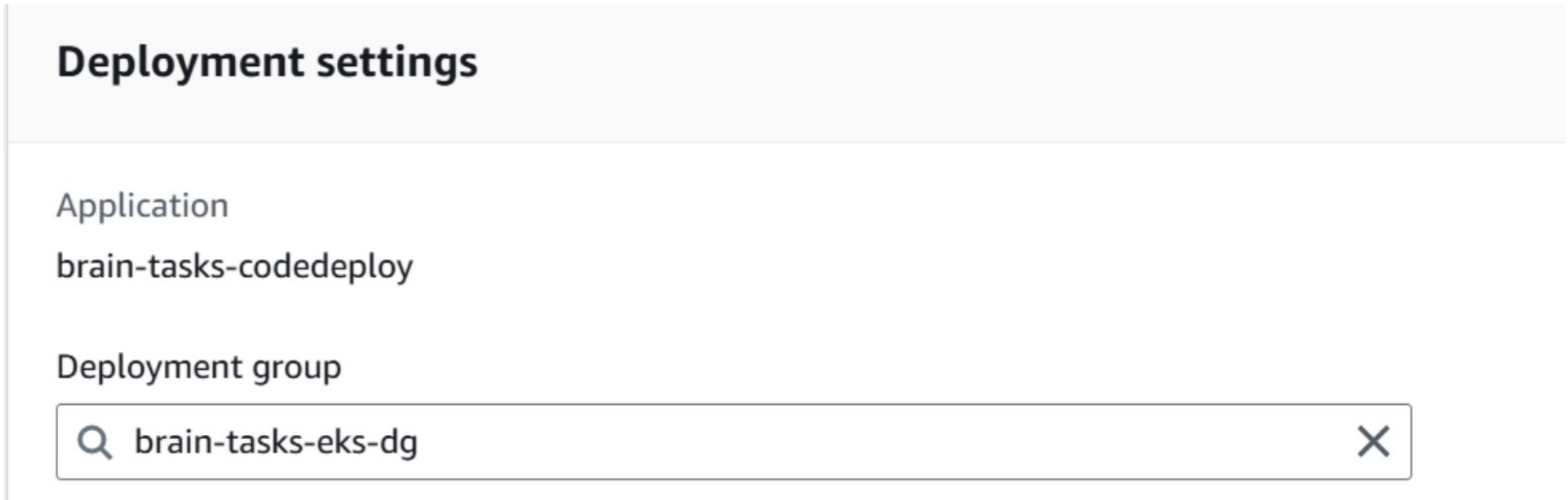
28. Click on create deployment group and here deployment group successfully created



29. Now create deployment



30. Add deployment group name



31. Choose revision type "my application is stored in github"

Revision type

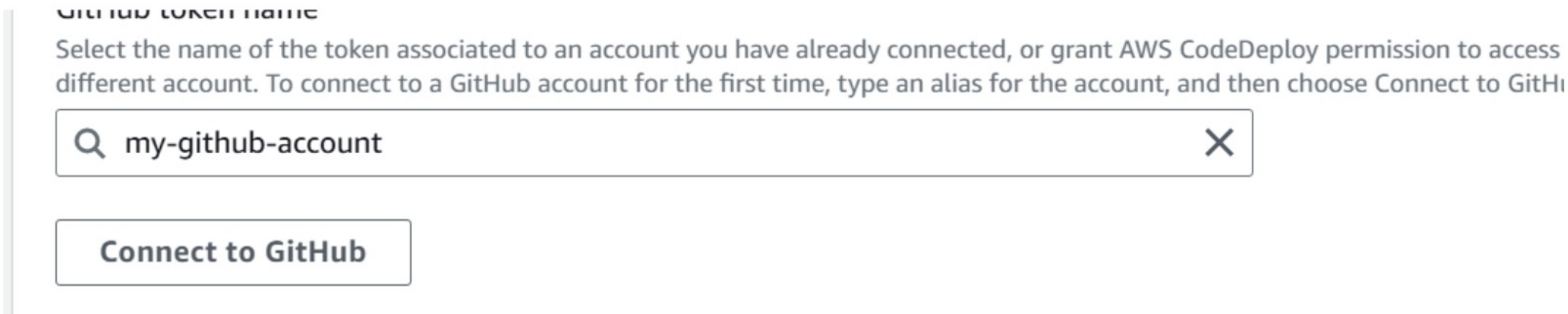
- ○ My application is stored in Amazon S3
- ◉ My application is stored in GitHub

GitHub token name

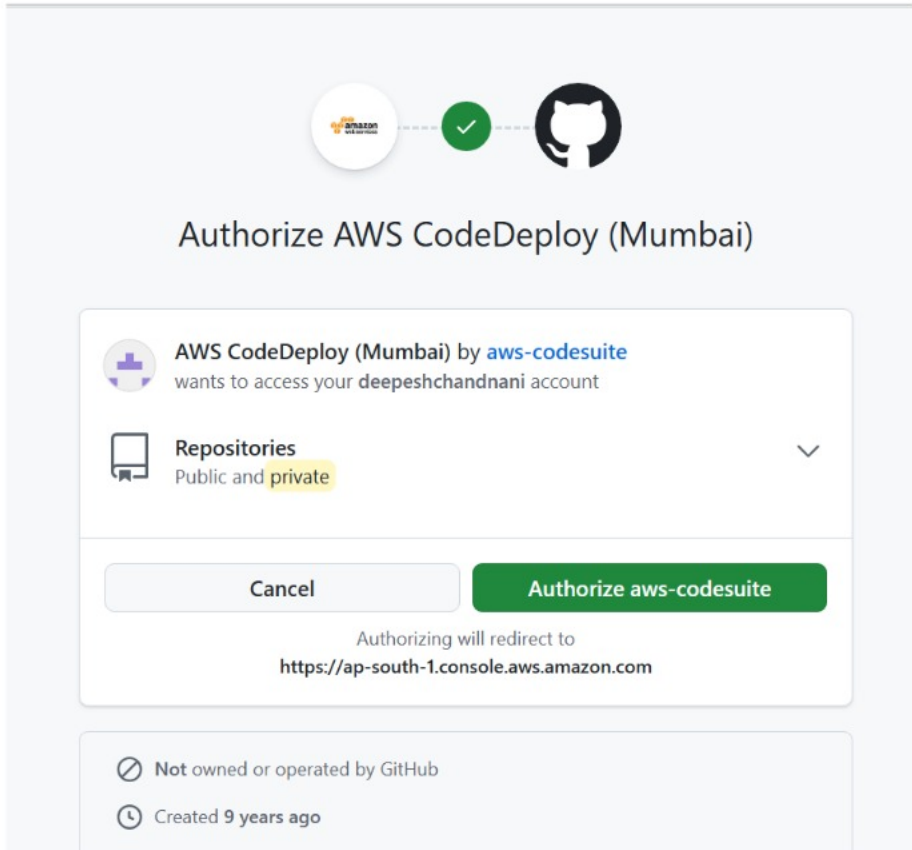
Select the name of the token associated to an account you have already connected, or grant AWS CodeDeploy permission to access a different account. To connect to a GitHub account for the first time, type an alias for the account, and then choose Connect to GitHub

Connect to GitHub

32. Connect to github



33. Authorize aws codedeploy



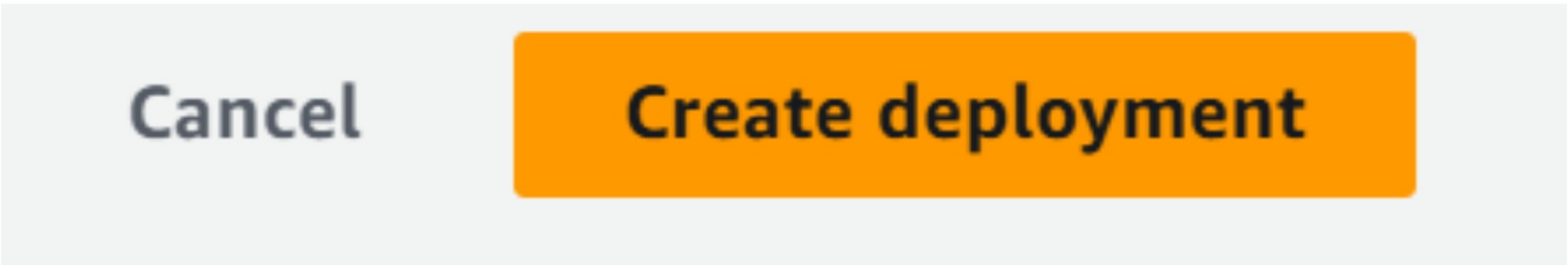
34. Add repo name

Repository name

deepeshchandnani/Brain-Tasks-App

Commit ID

35. Now click on create deployment



36. Watch logs it shows deployment completed successfully

```
#!/bin/bash
set -e

echo "Finding latest deployment archive..."
LATEST_DIR=$(ls -td /opt/codedeploy-agent/deployment-root/*/*/deployment-archive | head -1)

echo "Moving to deployment archive: $LATEST_DIR"
cd "$LATEST_DIR"

echo "Updating kubeconfig..."
aws eks update-kubeconfig \
  --region ap-south-1 \
  --name brain-eks

echo "Deploying to EKS..."
kubectl apply -f k8s/deployment.yaml
kubectl apply -f k8s/service.yaml

echo "Deployment completed successfully"

```

37. The all stages are executed successfully

Event	Duration	Status	Error code
ApplicationStop	less than one second	Succeeded	-
DownloadBundle	less than one second	Succeeded	-
BeforeInstall	less than one second	Succeeded	-
Install	less than one second	Succeeded	-
AfterInstall	4 seconds	Succeeded	-
ApplicationStart	less than one second	Succeeded	-
ValidateService	less than one second	Succeeded	-