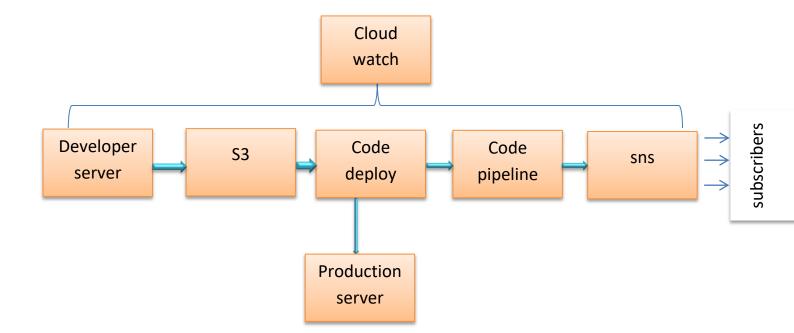
## **CODE DEPLOYED AND CODE PIPELINE**



## **Code deployed**

CodeDeploy is a deployment service that automates application deployments to Amazon EC2 instances, on-premises instances, serverless Lambda functions, or Amazon ECS services.

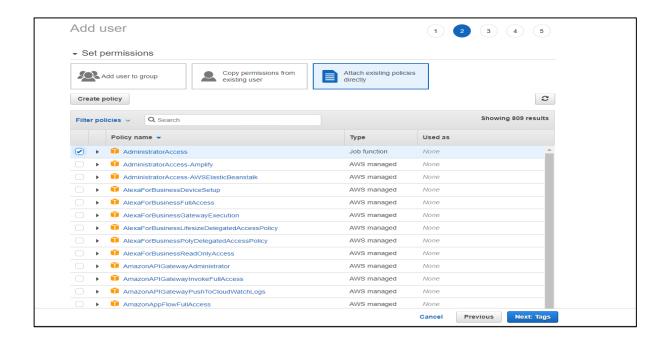
### Steps to creat code deploy

#### Step1:create user

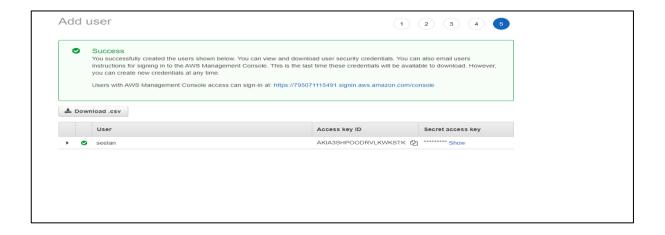
lam--->add user--->name(any)---->acces key only tick---->next



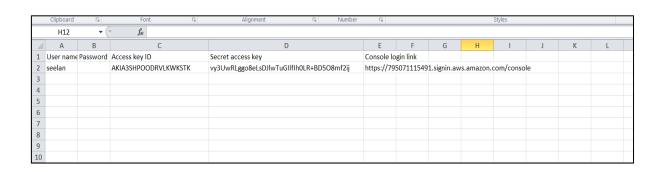
Set permissions---->attach existing policy(administrator acces)---->next--->next--->next--->creat user



#### User created---->download ccv



## We get acces key and secret acces key

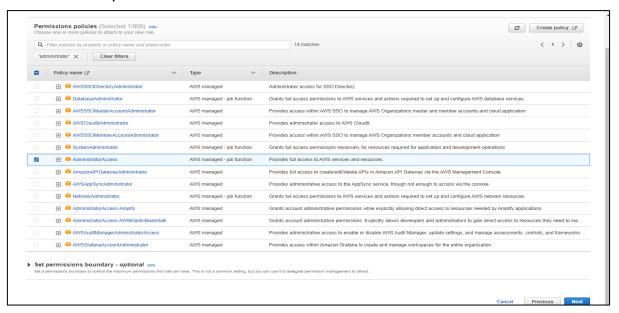


### Step2:create ec2 role

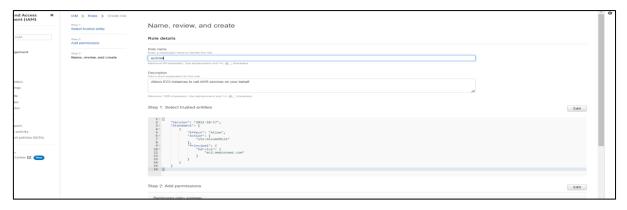
Roles---->create role--->trusted entity type(aws service)---->use case(Ec2)---->next



## Permission policies---->administrator acces--->next



### Role name(ec2role)---->create



## Step3:create code deploy role

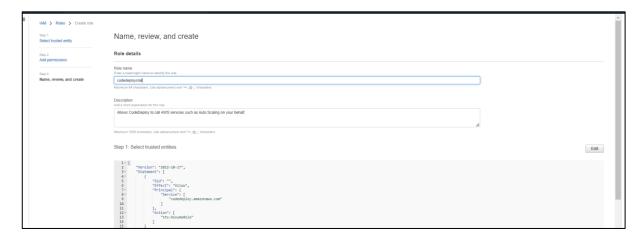
Roles---->create role--->trusted entity type(aws service)---->use case(code deploy)---->next



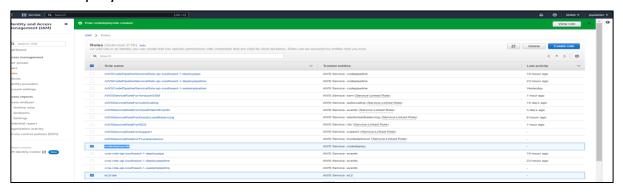
## Permission policies---->default permission--->next



## Role name(codedeployrole)---->create

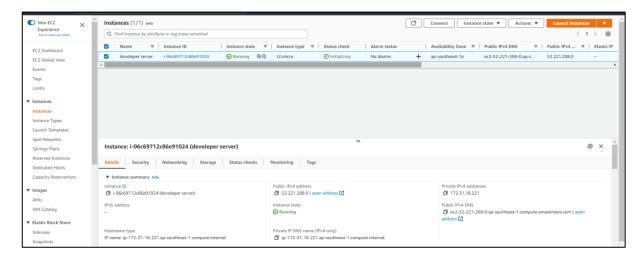


# code deoploy role created..

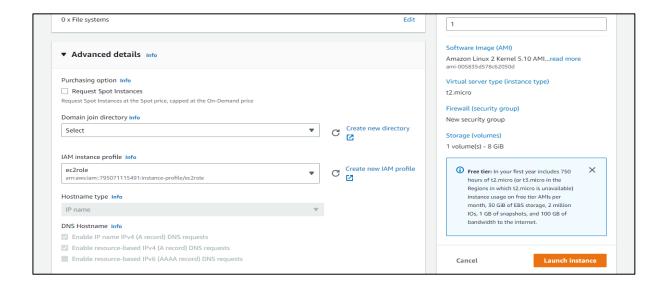


## Step4:launch ec2 instance

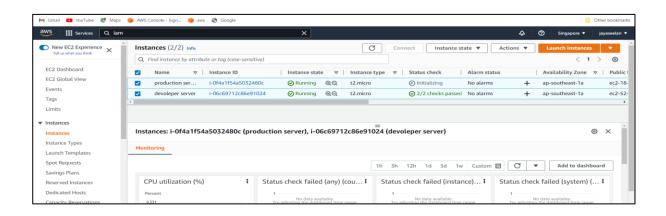
**Step4.1**: Name(developer server)---->linux os----->security group(ssh &http)--->launch instance



**Step4.2**: Name(production server)---->linux os----->security group(ssh &http)--->advanced details(iam role--->ec2 role attach)---->launch instance



Developer and production server launched..



### Step5:login developer server

**Step5.1:** Puuty open--->login(ec2-user)--->aws configure(acces key ,secret acces, key,zone,json)

### Step5.2:make directory and put html content

```
#mkdir deploy_dir

#cd deploy_dir

#mkdir sampleapp

#cd sampleapp

#vi index.html

<html>

<h2> Sample App Version 1 </h2>

</html>
```

```
chtml>
<html>
<html>
<html>
<html>
<init align="right" | html | h
```

#### #vi appspec.yml

version: 0.0

os: linux

files:

- source: /index.html

destination: /var/www/html/

hooks:

#### BeforeInstall:

- location: scripts/httpd\_install.sh

timeout: 300

runas: root

- location: scripts/httpd\_start.sh

timeout: 300

runas: root

## ApplicationStop:

- location: scripts/httpd\_stop.sh

timeout: 300

runas: root

```
cec2-user@ip-172-31-18-221:~/deploy_dir/sampleapp

version: 0.0

os: linux

files:
- source: /index.html
    destination: /var/www/html/

nooks:

BeforeInstall:
- location: scripts/httpd_install.sh
    timeout: 300
    runas: root
- location: scripts/httpd_start.sh
    timeout: 300
    runas: root
ApplicationStop:
- location: scripts/httpd_stop.sh
    timeout: 300
    runas: root
```

```
#mkdir scripts

#cd scripts

#vi httpd_install.sh

#!/bin/bash

yum install -y httpd

#vi httpd_start.sh

#!/bin/bash

systemctl start httpd

#vi httpd_stop.sh

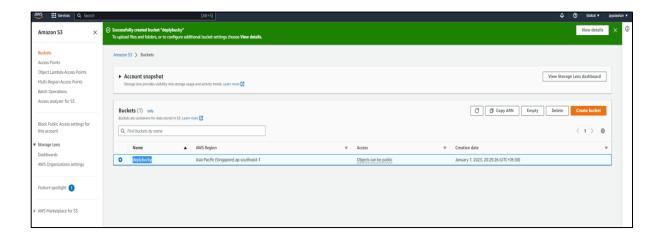
#!/bin/bash

systemctl stop httpd
```

now give permission #chmod 777 \*

## Step6:create s3 bucket

Bucket---->create bucket---->name(any)--->acl enabeled--->public acces--->bucket versioning(enabled)--->create bucket



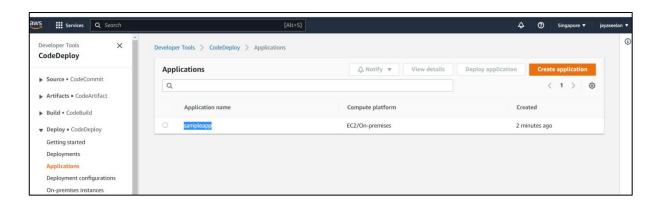
## Step7:creat application using command(code deploy)

Step7.1:Open code deploy service--->application

Step7.2:application create using command--->cd scripts--->

# aws deploy create-application --application-name sampleapp

Step7.3:now check code deploy--->application--->one application will show



## Step8:creating all files zip and put s3 bucket

#cd sampleapp---->

# aws deploy push --application-name sampleapp --s3-location s3:// deplybucky/sampleapp.zip

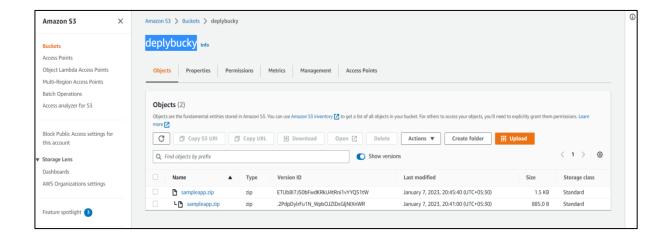
#cd deploy\_dir----> # zip -r ../sampleapp.zip .

```
deploy with this revision, run:
aws deploy create-deployment --application-name sampleapp --s3-location bucket=deplybucky,ke
lDxGljNiXnWR --deployment-group-name <deployment-group-name> --deployment-config-name <deployment-group-name >
[ec2-user@ip-172-31-18-221 sampleapp]$ cd ..
[ec2-user@ip-172-31-18-221 deploy_dir]$ # zip -r ../sampleapp.zip .
[ec2-user@ip-172-31-18-221 deploy_dir]$ 11
total 0
drwxrwxr-x 3 ec2-user ec2-user 58 Jan 7 14:51 sampleapp
[ec2-user@ip-172-31-18-221 deploy_dir]$ zip -r ../sampleapp.zip .
 adding: sampleapp/ (stored 0%)
adding: sampleapp/index.html (deflated 9%)
 adding: sampleapp/appspec.yml (deflated 53%)
 adding: sampleapp/scripts/ (stored 0%)
  adding: sampleapp/scripts/httpd_install.sh (stored 0%)
 adding: sampleapp/scripts/httpd start.sh (stored 0%)
 adding: sampleapp/scripts/httpd_stop.sh (stored 0%)
[ec2-user@ip-172-31-18-221 deplov dir]$
```

#cd.. --->#aws s3 cp sampleapp.zip s3://aws280921(bucket nname--->deplybuckey)

```
total 0
drwxrwxr-x 3 ec2-user ec2-user 58 Jan 7 14:51 sampleapp
[ec2-user@ip-172-31-18-221 deploy_dir]$ zip -r ../sampleapp.zip .
adding: sampleapp/ (stored 0%)
adding: sampleapp/index.html (deflated 9%)
adding: sampleapp/appspec.yml (deflated 53%)
adding: sampleapp/scripts/ (stored 0%)
adding: sampleapp/scripts/httpd_install.sh (stored 0%)
adding: sampleapp/scripts/httpd_start.sh (stored 0%)
adding: sampleapp/scripts/httpd_start.sh (stored 0%)
adding: sampleapp/scripts/httpd_start.sh (stored 0%)
[ec2-user@ip-172-31-18-221 ~]$ aws s3 cp sampleapp.zip s3://deplybucky
upload: ./sampleapp.zip to s3://deplybucky/sampleapp.zip
[ec2-user@ip-172-31-18-221 ~]$
```

Finally it will upload, now check bucket object(2 zip format object shown)



## Step9:login production server

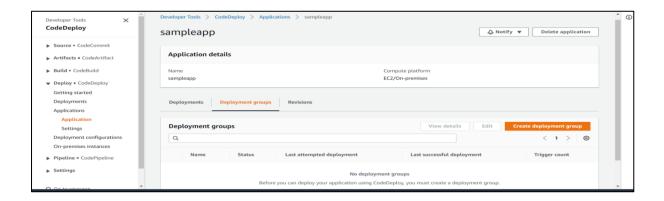
```
#sudo -i
#yum install ruby -y
# wget https://aws-codedeploy-us-east-1.s3.amazonaws.com/latest/install
# chmod +x install
#./install auto
# service codedeploy-agent status
```

```
https://ass.manon.com/amazon-linux-2/
[ccd-user8jp-172-31-29-67 -] sudo -1
[coc4sp-172-31-29-67 -] sugo -1
[coc4sp-172-31-29-6
```

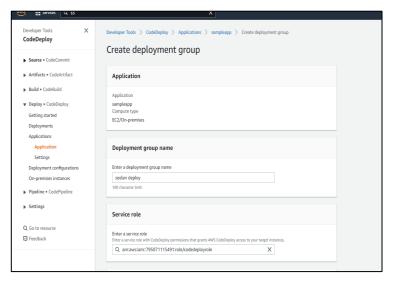
Finally get PID

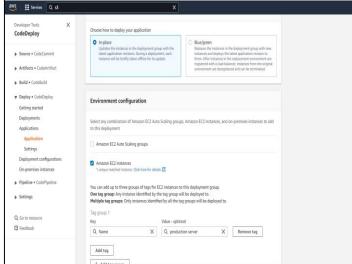
## **Step10:Create Code Deployment**

**Step10.1:**Code deploy---->application---->create code deployment group--->

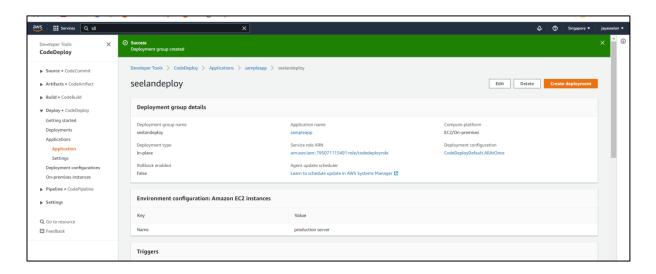


Deployement group name(any)--->service role select--->deployment type(in place)---->select amazon ec2 instance--->tag group1--->key(name)---->value(production server)---->load balancer disable--->create deployment group

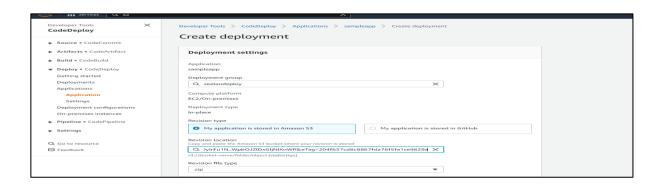




Deployment group created..

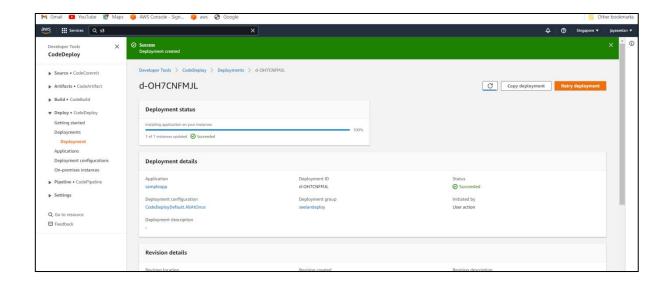


**Step10.2**:create code deployment --->it already show application name,deployment group name--->revision type(my application stored in amazon s3)---->select s3 bucket location--->create deployment

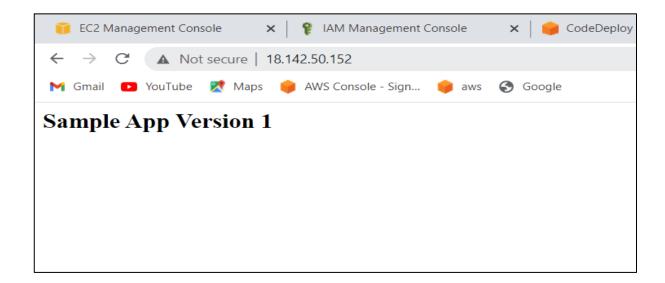


Deployment created..

It will shoe deployment status 100% then only it is success..



Now check html content--->put production server public ip in chrome text page



## **Step11:Create Code pipline**

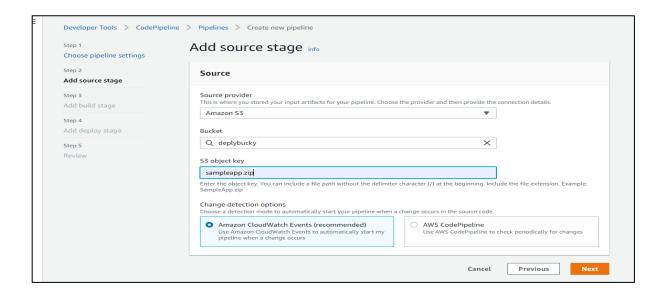
Create pipeline--->name(any)---->next



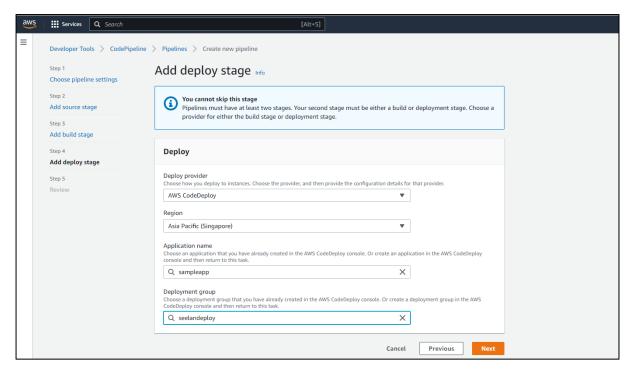
#### Source provider--->select(amazon s3)--->next

| Developer Tools > CodePip                      | eline > Pipelines > Create new pipeline  |
|--|--|
| Step 1<br>Choose pipeline settings             | Add source stage Info  |
| Step 2 Add source stage                        | Source   |
| Step 3 Add build stage Step 4 Add deploy stage | Source provider  This is where you stored your input artifacts for your pipeline. Choose the provider and then provide the connection details. |
| Step 5<br>Review                               | Cancel Previous Next   |
|  |  |

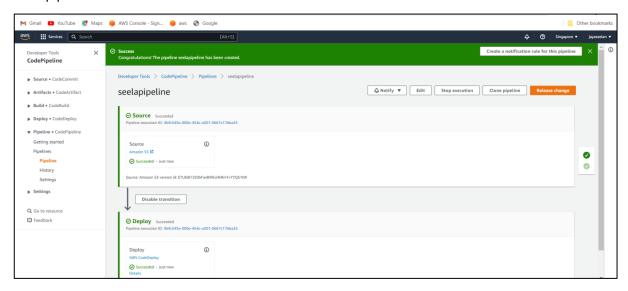
#### Bucket(select)--->select s3 object key--->next--->skip build stage



Add deploy stage--->deploy provider(aws code deploy)--->application(select)--->deployment group select--->next--->create..



code pipeline created success..



## Step11:check code pipline work

Developer server go--->edit index file

#cd sampelapp

#vi index.html ---->change html content

<html>

<h2> Sample App Version 2 </h2>

</html>

Delete sampleapp.zip

```
https://aws.amazon.com/amazon-linux-2/
[ec2-user@ip-172-31-18-221 als ed deplo dir
-bash: cd: deplo dir: No such file or directory
[ec2-user@ip-172-31-18-221 als ed deploy dir
-bash: cd: deploy dir: No such file or directory
[ec2-user@ip-172-31-18-221 als ed deploy dir
-bash: cd: deploy dir: No such file or directory
[ec2-user@ip-172-31-18-221 als ed deploy dir
[ec2-user@ip-172-31-18-221 deploy dir]$ I

total of deploy dir: No such file or directory
[ec2-user@ip-172-31-18-221 deploy dir]$ I

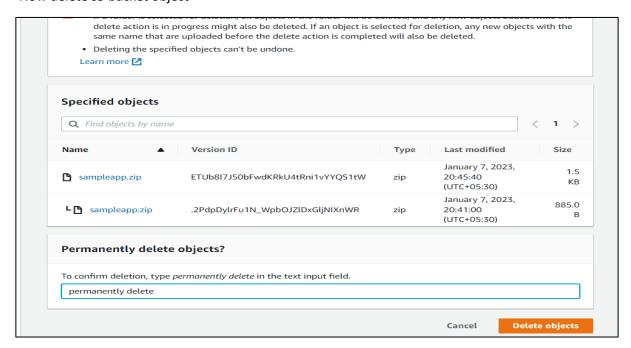
total of deploy dir: No such file or directory
[ec2-user@ip-172-31-18-221 deploy dir]$ cd sampleapp
[ec2-user@ip-172-31-18-221 deploy dir]$ cd sampleapp
[ec2-user@ip-172-31-18-221 sampleapp]$ vi index.html
[ec2-user@ip-172-31-18-221 sampleapp]$ cd ..
[ec2-user@ip-172-31-18-221 deploy dir]$ 11

total of drwxrwxr-x 3 ec2-user ec2-user 58 Jan 7 15:50 sampleapp
[ec2-user@ip-172-31-18-221 deploy dir]$ cd ..
[ec2-user@ip-172-31-18-221 als als als also deploy dir
[ec2-user@ip-172-31-18-221 als als also deploy dir]$ cd ..
[ec2-user@ip-172-31-18-221 als als also deploy dir
[ec2-user@ip-172-31-18-221 als als also deploy dir
[ec2-user@ip-172-31-18-221 als als
```

#### #rm -rv sampleapp.zip

```
total 4
drwxrwxr-x 3 ec2-user ec2-user 23 Jan 7 14:41 deploy_dir
-rw-rw-r-- 1 ec2-user ec2-user 1551 Jan 7 15:13 sampleapp.zip
[ec2-user@ip-172-31-18-221 ~]$ rm -rv sampleapp.zip
removed 'sampleapp.zip'
[ec2-user@ip-172-31-18-221 ~]$
```

#### Now delete s3 bucket object



Now again put object in bucket using command

#### #Cd sampleapp

aws deploy push –application-name sampleapp –s3-location s3://deplybuckey/sampleapp.zip

```
/home/ec2-user/deploy_dir/appspec.yml was not found
[ec2-user@ip-172-31-18-221 deploy_dir]s aws deploy push --application-name sampleapp --s3-location s3://deplybucky/sampleapp.zip

/home/ec2-user@ip-172-31-18-221 deploy_dir]s od ..

[ec2-user@ip-172-31-18-221 deploy_dir]s od ..

[ec2-user@ip-172-31-18-221 deploy_dir]s od sampleapp
[ec2-user@ip-172-31-18-221 deploy_dir]s od sampleapp
[ec2-user@ip-172-31-18-221 deploy_dir]s od sampleapp
[ec2-user@ip-172-31-18-221 sampleapp]s aws deploy push --application-name sampleapp --s3-location s3://deplybucky/sampleapp.zip

To deploy with this revision, run:

aws deploy create-deployment --application-name sampleapp --s3-location bucket-deplybucky, key=sampleapp.zip, bundleType=zip, eTag=9934011c3aa5c9abc2e27985816c749c, version=yE9tw3WRBSAYpbeUKxSd
ng@QPesMXJS] --deployment-group-name <deployment-group-name> --deployment-config-name> --description <description>
```

cd..

deply dir----> #zip -r ../sampleapp.zip .

```
ng%QPesNMJS] --deployment-group-name <deployment-group-name> --deployment-config-name
[ec2-user@ip-172-31-18-221 sampleapp]$ cd deploy_dir
-bash: cd: deploy_dir: No such file or directory
[ec2-user@ip-172-31-18-221 sampleapp]$ cd ..
[ec2-user@ip-172-31-18-221 deploy_dir]$ zip -r ../sampleapp.zip .
adding: sampleapp/ (stored 0%)
adding: sampleapp/appspec.yml (deflated 53%)
adding: sampleapp/scripts/ (stored 0%)
adding: sampleapp/scripts/httpd_install.sh (stored 0%)
adding: sampleapp/scripts/httpd_start.sh (stored 0%)
adding: sampleapp/scripts/httpd_start.sh (stored 0%)
adding: sampleapp/scripts/httpd_stop.sh (stored 0%)
adding: sampleapp/index.html (deflated 9%)
[ec2-user@ip-172-31-18-221 deploy_dir]$
```

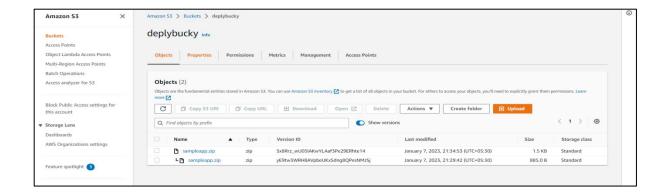
cd..

# aws s3 cp sampleapp.zip s3://delybuckey

```
Last login: Sat Jan 7 15:48:08 2023 from 157.51.66.55
                     Amazon Linux 2 AMI
https://aws.amazon.com/amazon-linux-2/
[ec2-user@ip-172-31-18-221 ~]$ cd deploy_dir
[ec2-user@ip-172-31-18-221 deploy_dir]$ cd sampleapp
[ec2-user@ip-172-31-18-221 sampleapp]$ aws s3 cp sampleapp.zip s3://deplybucky
The user-provided path sampleapp.zip does not exist.
[ec2-user@ip-172-31-18-221 sampleapp]$ cd ..
[ec2-user@ip-172-31-18-221 deploy_dir]$ cd ..
[ec2-user@ip-172-31-18-221 ~]$ aws s3 cp sampleapp.zip s3://deplybucky
upload: ./sampleapp.zip to s3://deplybucky/sampleapp.zip
[ec2-user@ip-172-31-18-221 ~]$ 11
total 4
drwxrwxr-x 3 ec2-user ec2-user 23 Jan 7 14:41 deploy dir
-rw-rw-r-- 1 ec2-user ec2-user 1551 Jan 7 16:01 sampleapp.zip
[ec2-user@ip-172-31-18-221 ~]$ ls
```

It show sampleapp.zip file

Now check bucket object will shown --->it is update version



## Step12:now code pipline work

Copy production server public ip and put chrome it will shown update html content --->it will success..

