

School of Computer Science, Engineering and Applications(SCSEA)

B.C.A. TY (CCSA)

Subject : Advanced Cloud Computing (P)

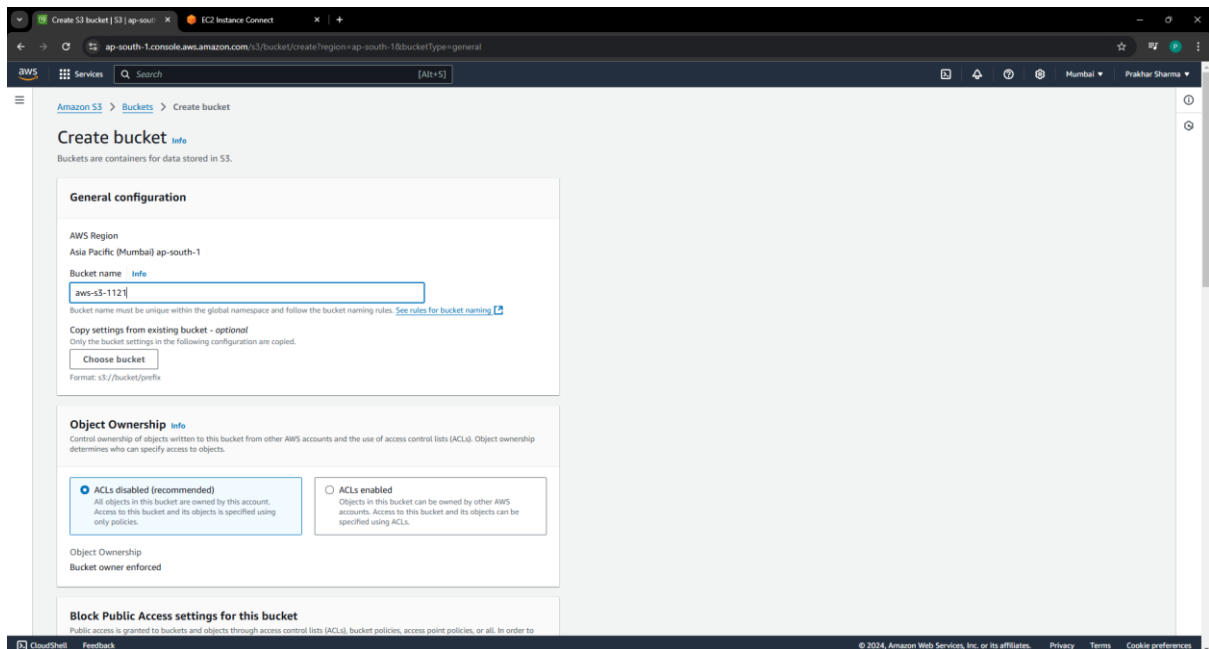
Name of the Student: Prakhar Anil Sharma

PRN: 20220801121

Title of Practical : Access S3 bucket through EC2 using IAM role

Step 1: Create an S3 Bucket

1. Go to the Amazon S3 service in the AWS Console.
2. Click on Create bucket.
3. Enter a name for your bucket.



4. Click Create bucket to complete the setup.

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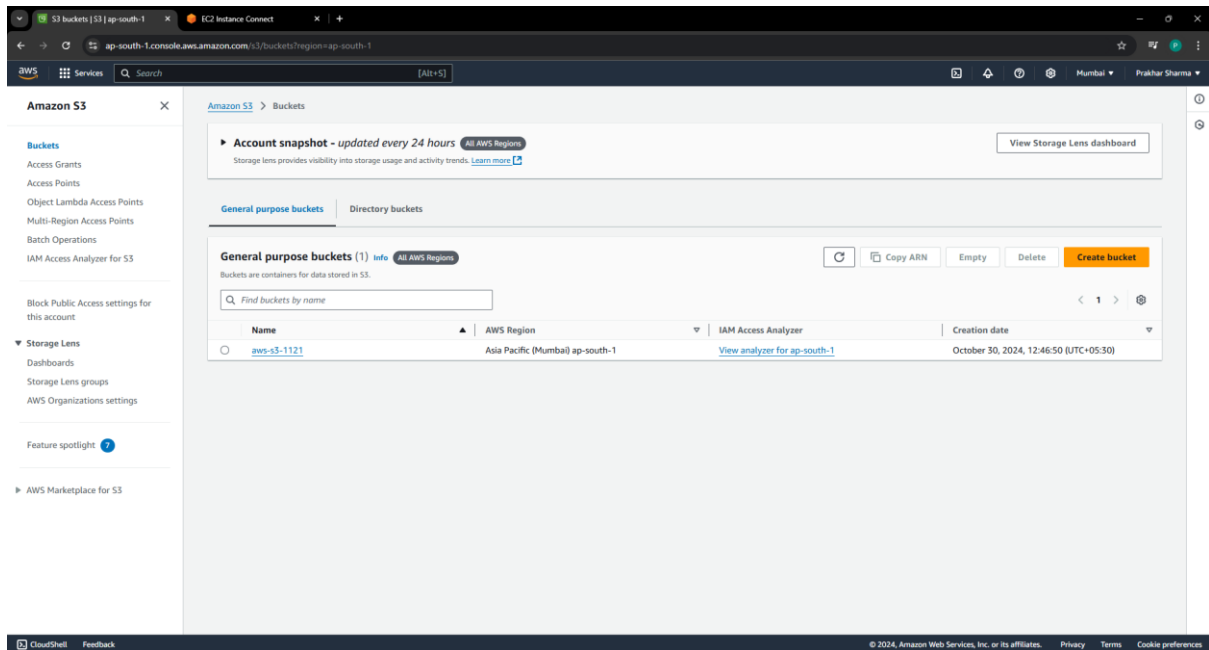
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Step 2: Create an IAM Role with S3 Access

1. Navigate to the IAM service in the AWS Console.
2. In the left-hand panel, under Access Management, click Create Role.

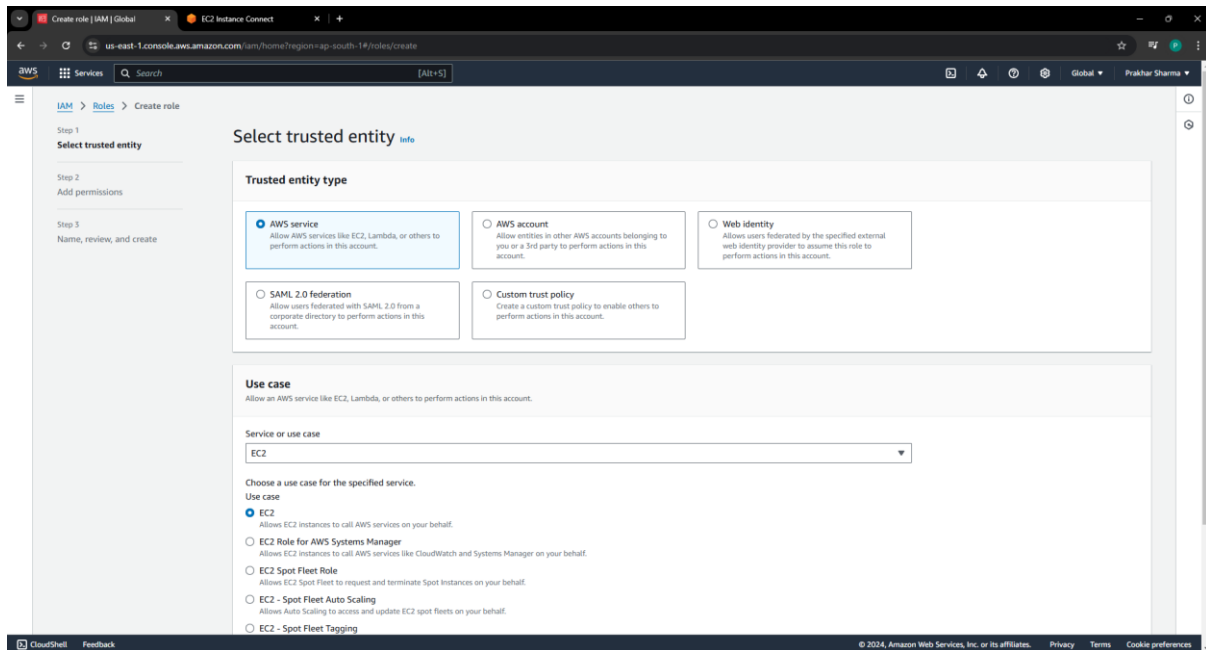
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3. Click Next.

4. In the Permission policies section, search for AmazonS3FullAccess and select it.

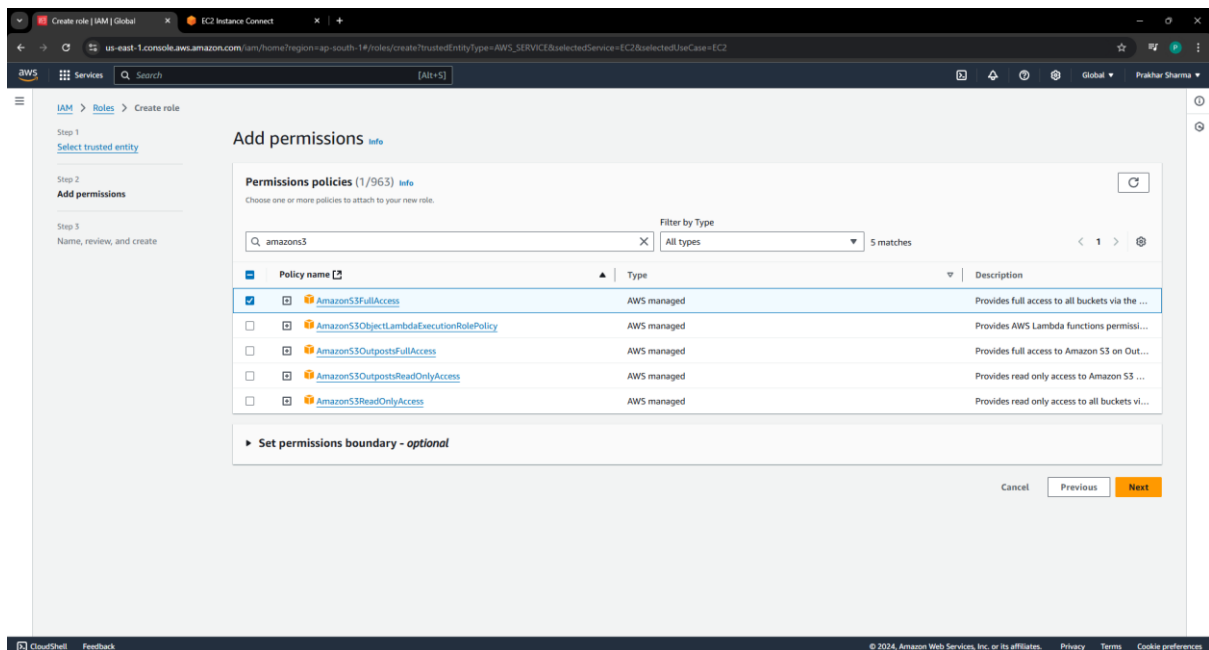
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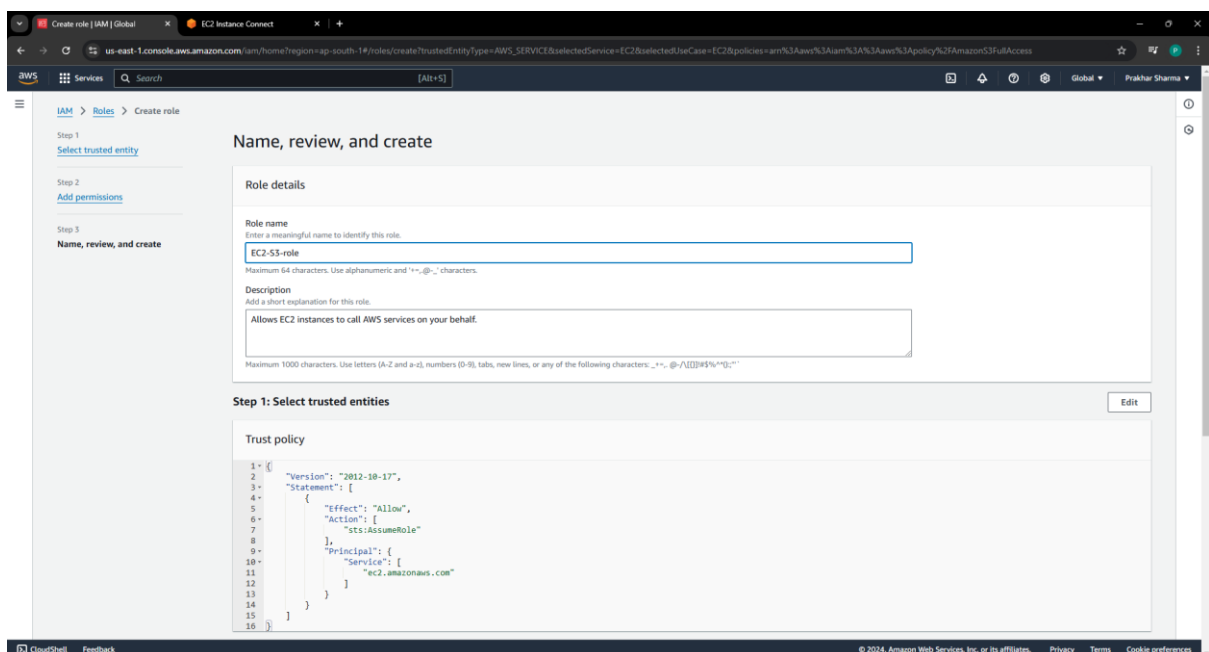
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5. Click Next and then Give a name to Role & create it.



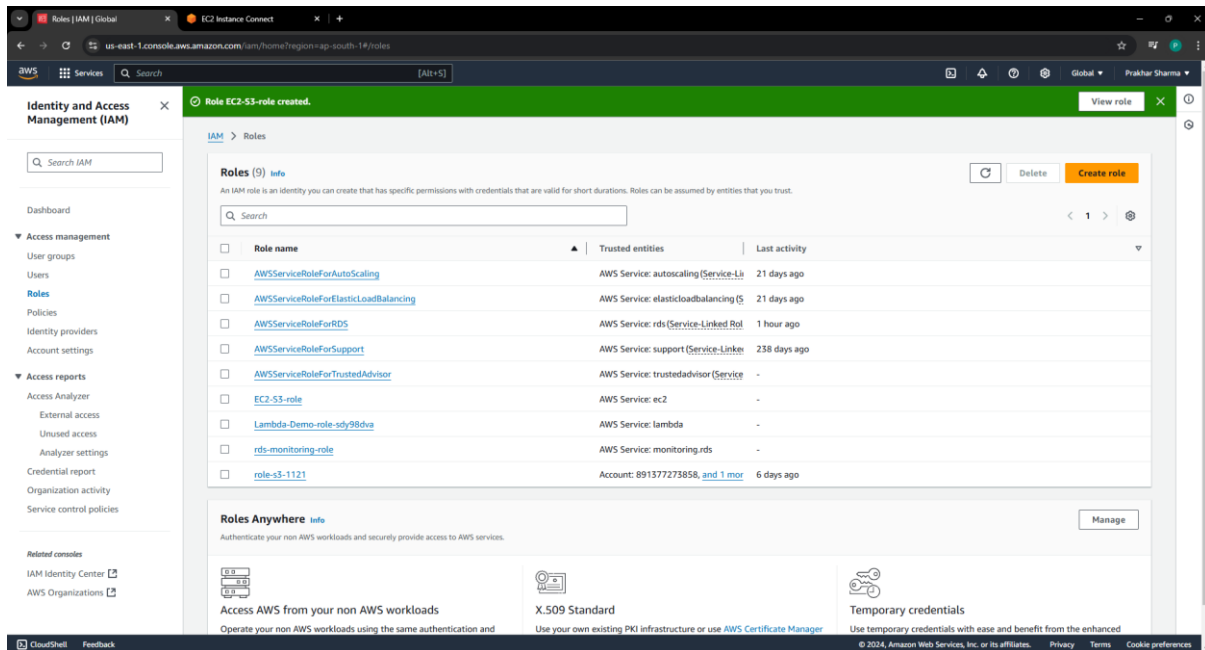
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Step 3 :- Create an ec2 Instance with following configuration:-

- Name of Instance :- AWS-S3-1077
- AMI Image :- Ubuntu
- Instance type :- t2.micro
- Key Pair :- Create new key pair or select existing
- Network Setting :- Create security group or Select existing security group
- Launch the Instance



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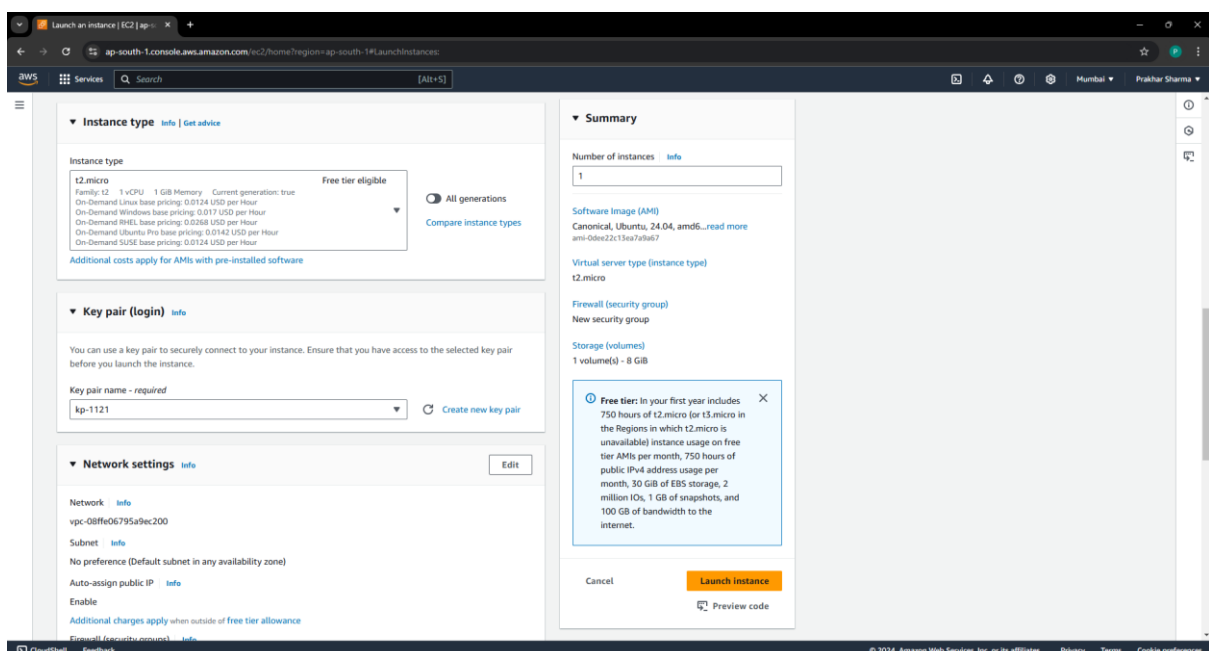
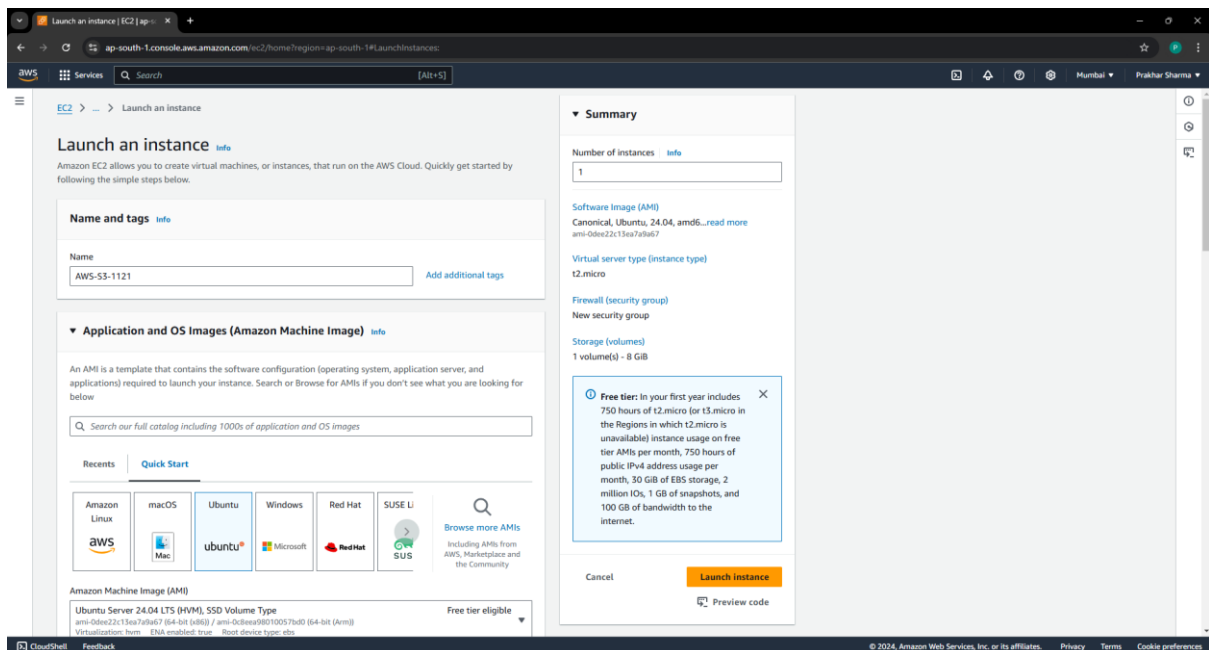
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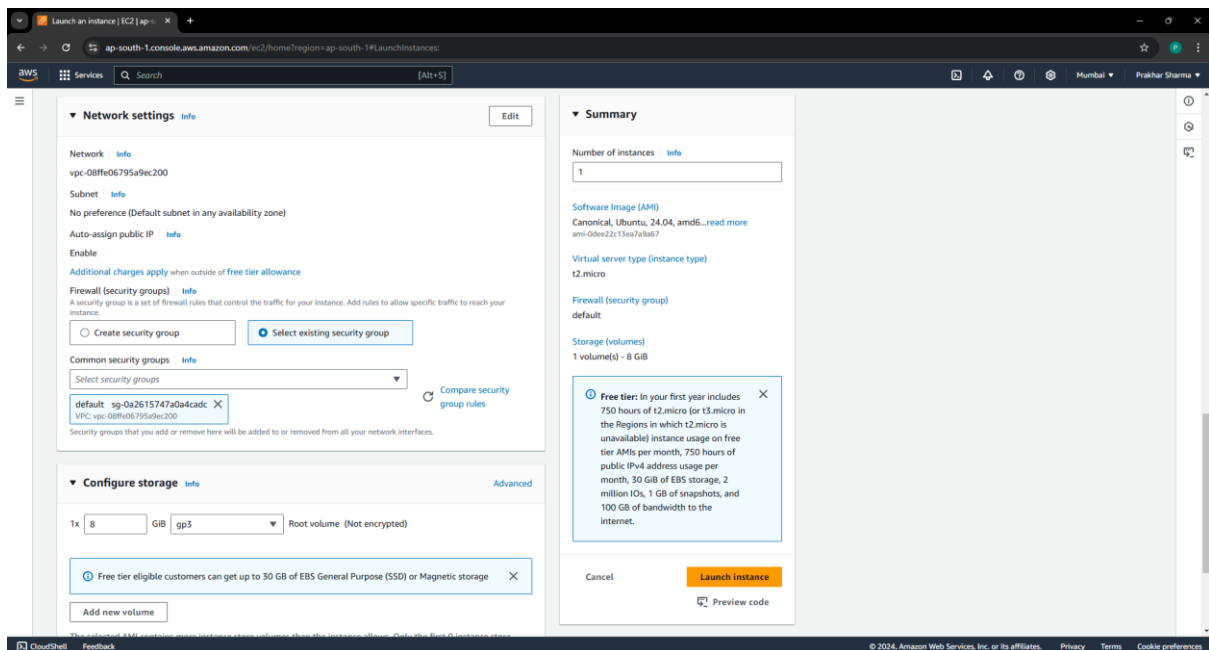
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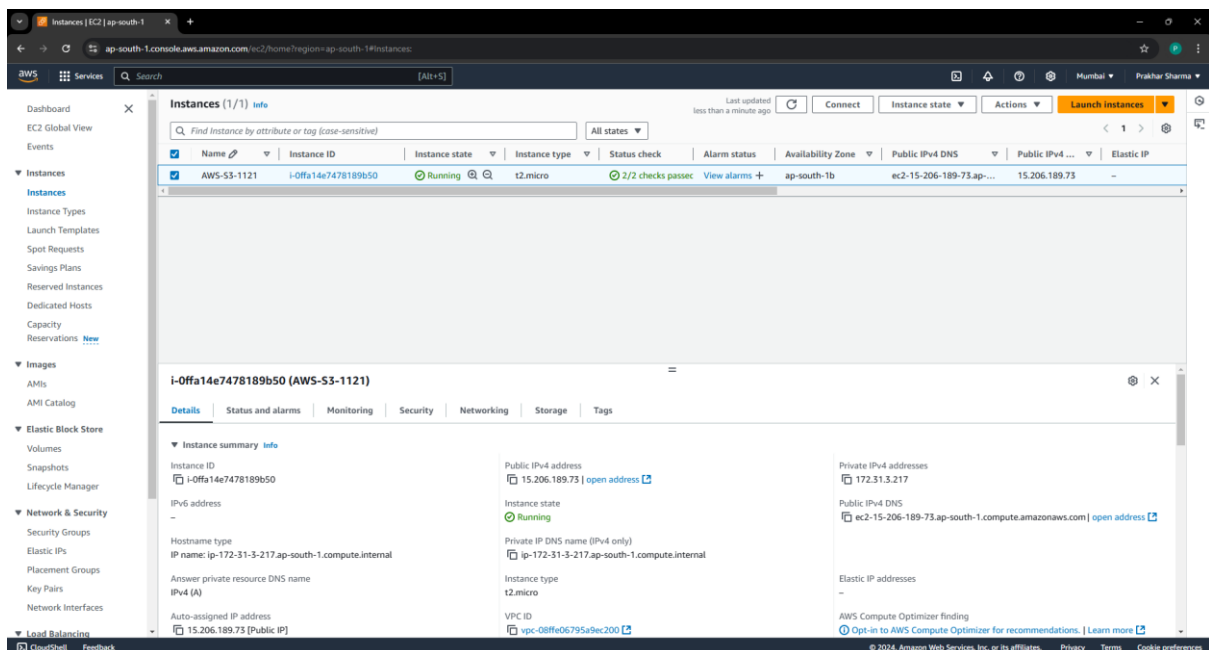
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1. Select the Instance & Click on Actions then choose Security & Click on Modify IAM Role



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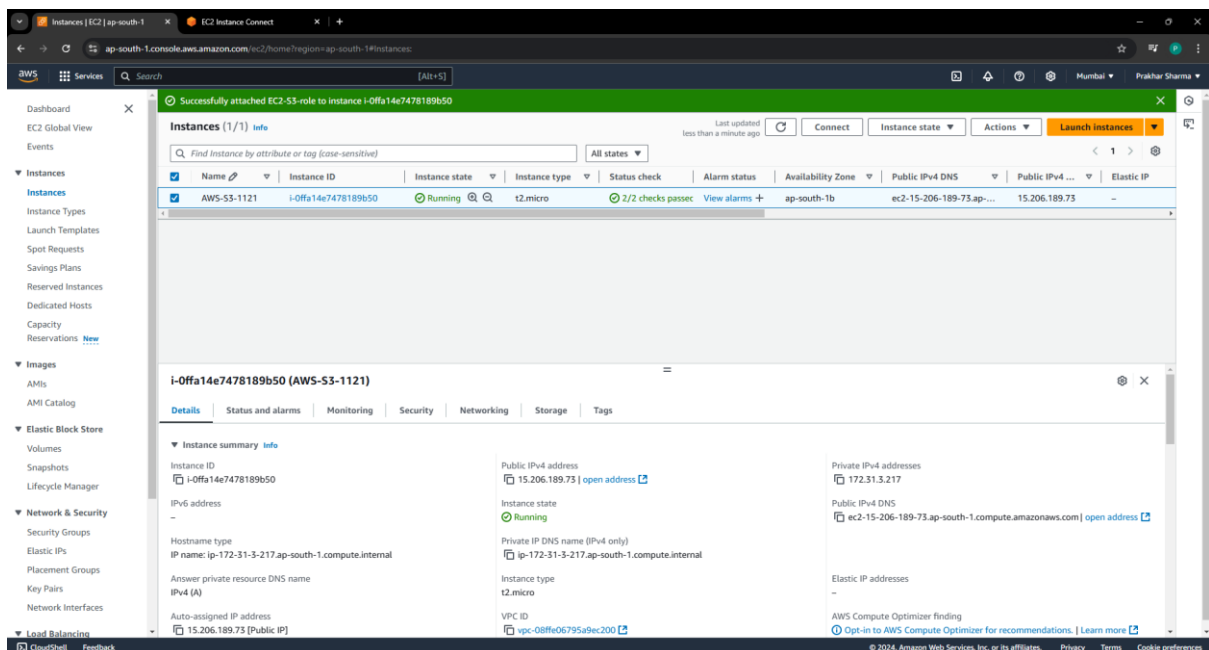
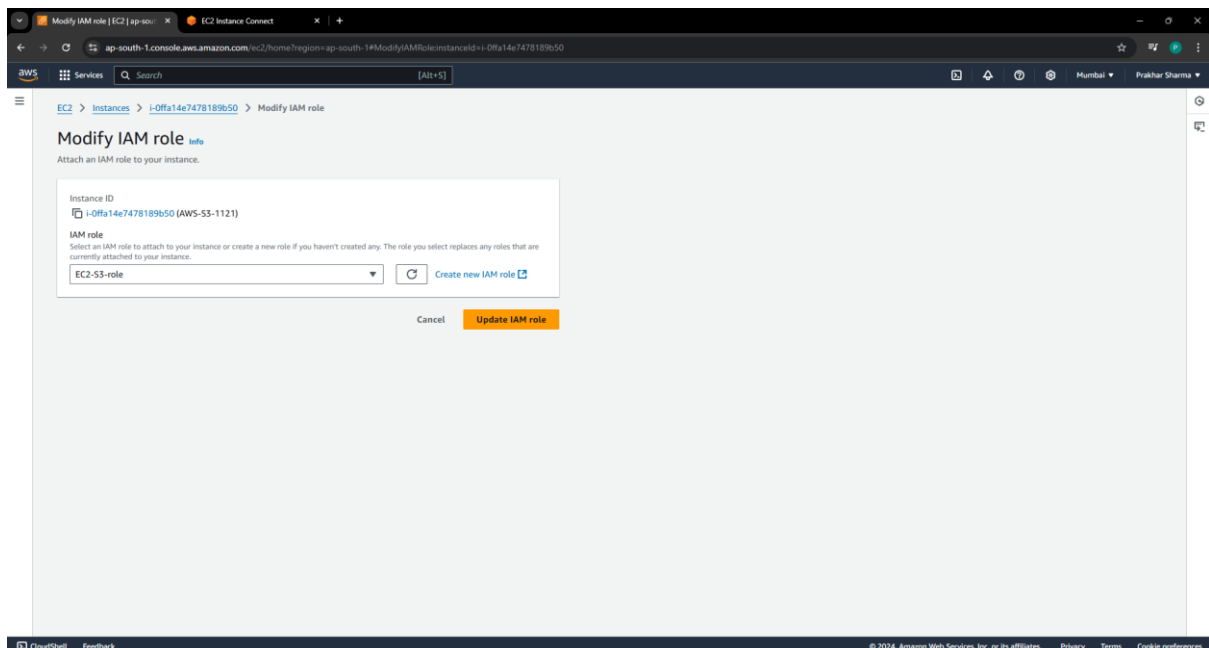
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2. Select the IAM Role we just created



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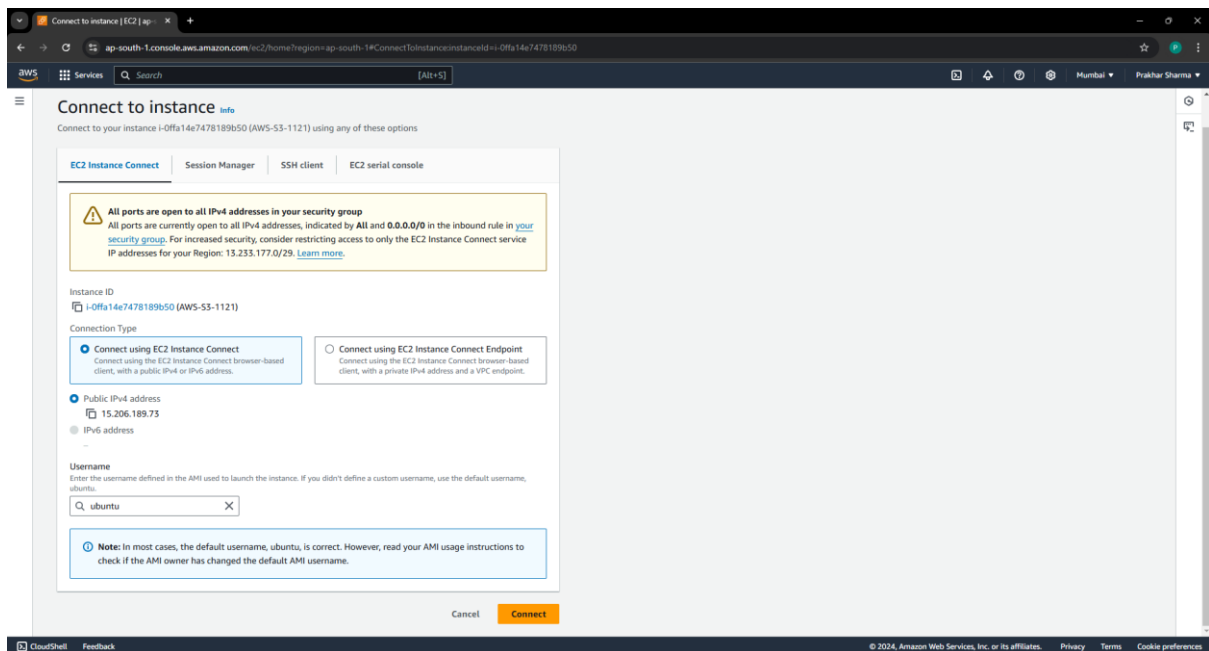
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Step-4: Connect the instance using ec2 instance connect.



Step 5: Access S3 Bucket Contents Using Ec2 Instance CLI

1. In the terminal ,Run the following commands to install the AWS CLI:

- sudo apt install unzip
- curl "https://awscli.amazonaws.com/awscli-exe-linux-x86_64.zip" -o -- "awscliv2.zip"
- unzip awscliv2.zip
- sudo ./aws/install
- aws --version



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```
ubuntu@ip-172-31-3-217:~$ sudo apt install unzip
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
Suggested packages:
  zip
The following NEW packages will be installed:
  unzip
0 upgraded, 1 newly installed, 0 to remove and 0 not upgraded.
Need to get 175 kB of archives.
After this operation, 384 kB of additional disk space will be used.
Get:1 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu/noble/main amd64 unzip amd64 6.0-28ubuntu4 [175 kB]
Fetched 175 kB in 0s (6101 kB/s)
Selecting previously unselected package unzip.
(Reading database ... 67836 files and directories currently installed.)
Preparing to unpack .../unzip_6.0-28ubuntu4_amd64.deb ...
Unpacking unzip (6.0-28ubuntu4) ...
Setting up unzip (6.0-28ubuntu4) ...
Processing triggers for man-db (2.12.0-4build2) ...
Scanning processes...
Scanning linux images...

Running kernel seems to be up-to-date.
No services need to be restarted.
No containers need to be restarted.
No user sessions are running outdated binaries.
No VM guests are running outdated hypervisor (qemu) binaries on this host.
ubuntu@ip-172-31-3-217:~$

i-Offa14e7478189b50 (AWS-53-1121)
PublicIP: 15.206.189.75 PrivateIP: 172.31.3.217

creating: aws/dist/docutils/writers/s5_html/themes/default/
creating: aws/dist/docutils/writers/s5_html/themes/medium-black/
creating: aws/dist/docutils/writers/s5_html/themes/medium-white/
creating: aws/dist/docutils/writers/s5_html/themes/small-black/
creating: aws/dist/docutils/writers/s5_html/themes/small-white/
inflating: aws/dist/docutils/writers/s5_html/themes/README.txt
inflating: aws/dist/docutils/writers/s5_html/themes/medium-black/_base_
inflating: aws/dist/docutils/writers/s5_html/themes/medium-black/pretty.css
inflating: aws/dist/docutils/writers/s5_html/themes/default/s5-core.css
inflating: aws/dist/docutils/writers/s5_html/themes/default/slides.css
inflating: aws/dist/docutils/writers/s5_html/themes/default/outline.css
inflating: aws/dist/docutils/writers/s5_html/themes/default/print.css
inflating: aws/dist/docutils/writers/s5_html/themes/default/framing.css
inflating: aws/dist/docutils/writers/s5_html/themes/default/slides.js
inflating: aws/dist/docutils/writers/s5_html/themes/default/opera.css
inflating: aws/dist/docutils/writers/s5_html/themes/big-black/framing.css
inflating: aws/dist/docutils/writers/s5_html/themes/big-black/_base_
inflating: aws/dist/docutils/writers/s5_html/themes/big-black/pretty.css
inflating: aws/dist/docutils/writers/s5_html/themes/medium-white/framing.css
inflating: aws/dist/docutils/writers/s5_html/themes/medium-white/pretty.css
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inflating: aws/dist/docutils/writers/s5_html/themes/small-white/pretty.css
inflating: aws/dist/docutils/writers/s5_html/themes/big-white/framing.css
inflating: aws/dist/docutils/writers/s5_html/themes/big-white/pretty.css
inflating: aws/dist/docutils/writers/latex2e/docutils.sty
inflating: aws/dist/docutils/writers/latex2e/docutils.tex
inflating: aws/dist/docutils/writers/latex2e/copyright.tex
inflating: aws/dist/docutils/writers/latex2e/copyright.tex
inflating: aws/dist/docutils/writers/html4css1/html4css1.css
inflating: aws/dist/docutils/writers/html4css1/html4css1.css
inflating: aws/dist/docutils/writers/odf_odt/styles.odt
inflating: aws/dist/docutils/writers/odf_odt/styles.odt
inflating: aws/dist/docutils/writers/odf_odt/template.txt
inflating: aws/dist/docutils/writers/odf_odt/pag.ppt
ubuntu@ip-172-31-3-217:~$
You can now run: /usr/local/bin/aws --version
ubuntu@ip-172-31-3-217:~$ aws --version
aws-cli/2.16.17 python3/3.12.6 linux/x86_64 awscli/6.8.0-1016-aws-cm/66_64.ubuntu.24
ubuntu@ip-172-31-3-217:~$
```

2. In the terminal, use the following command to list all buckets:

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1
0

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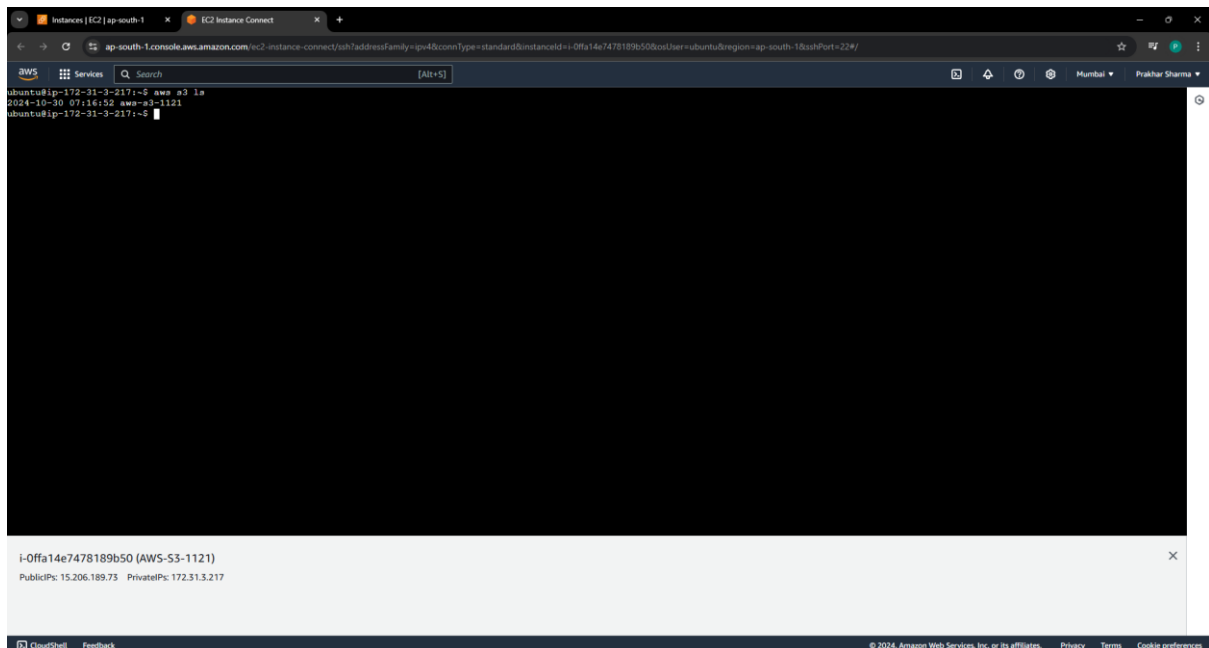
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- aws s3 ls

This will display the buckets you currently have.



- we have successfully Access the S3 buckets from Ec2 using IAM Role.



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