

## CLOUD PRACTICALS

Name : Shivam koli

Time limit: 1 hr 30min

Marks : 20

Do the following 3 practical questions

### Instructions:

1. Please mention question numbers clearly for each answer.
2. The answers for all 3 questions must be **put in one single document**. The **title of the document must be "Cloud Practicals\_[Your name]"** and attach the screenshots for each activity and push it to git [mallikarjuna.hs@tibilsolutions.com](mailto:mallikarjuna.hs@tibilsolutions.com) as a collaborator

### Questions:

1. Launch a free-tier **Ubuntu 22.04** EC2 instance and connect to it using SSH **using CLI (Not using Console)**  
[ 5 marks]

Ans :

1. aws configure
2. aws access key : AWS Access Key ID [\*\*\*\*\*AL62]: AKIAV7DXTE37VTI7QLW3
3. aws secret key : AWS Secret Access Key  
[\*\*\*\*\*Qh/p]: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
4. Region : us-east-1

Step 2: Create a Key Pair

Command :

```
aws ec2 create-key-pair --key-name my-keypair --query "KeyMaterial" --output text > my-keypair.pem
```

I got:

'chmod' is not recognized...

Step 3: Get Latest Ubuntu 22.04

Command :

```
aws ec2 describe-images --owners 099720109477 --filters "Name=name,Values=ubuntu/images/hvm-ssd/ubuntu-jammy-22.04-amd64-server-*" ...
```

ami-05ec1e5f7cfe5ef59

Step 4: created the security group and ssh

Command :

```
aws ec2 create-security-group ...
aws ec2 authorize-security-group-ingress ...
```

Step 5: launch ec2 instance

Command :

```
aws ec2 run-instances --image-id ami-05ec1e5f7cfe5ef59 --count 1 --instance-type t2.micro --key-name my-keypair --security-group-ids sg-0843096e924fd2713
```

Instance ID: i-0d076e6c02b4aea48

Public IP: 18.234.190.104

Step 6: check route table & internet gateway

Command :

```
aws ec2 describe-route-tables ...
```

The screenshot shows the AWS Management Console for the us-east-1 region. The 'Instances' page is active, displaying a table of EC2 instances. The table has columns for Name, Instance ID, Instance state, Instance type, Status check, and Alarm status. Three instances are listed: i-0d076e6c02b4aea48 (Running, t2.micro), i-0f311b9b0c3274ffb (Running, t2.micro), and i-0a8439f410f1f9249 (Stopped, m1.small). The left sidebar shows the navigation menu with 'Instances' selected. The top bar shows the AWS logo, search bar, and user information.

Name	Instance ID	Instance state	Instance type	Status check	Alarm status
	i-0d076e6c02b4aea48	Running	t2.micro	2/2 checks passed	View alarms +
	i-0f311b9b0c3274ffb	Running	t2.micro	2/2 checks passed	View alarms +
	i-0a8439f410f1f9249	Stopped	m1.small	-	View alarms +

```
Microsoft Windows [Version 10.0.22631.5624]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Shivam>aws --version
aws-cli/2.27.21 Python/3.13.3 Windows/11 exe/AMD64

C:\Users\Shivam>aws configure
AWS Access Key ID [*****AL62]: AKIAV7DXTE37VTI7QLW3
AWS Secret Access Key [*****Qh/p]: 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
Default region name [None]: us-east-1
Default output format [None]:
```

```
C:\Users\Shivam>aws ec2 create-key-pair --key-name my-keypair --query "KeyMaterial" --output text > my-keypair.pem

C:\Users\Shivam>chmod 400 my-keypair.pem
'chmod' is not recognized as an internal or external command,
operable program or batch file.

C:\Users\Shivam>aws ec2 describe-images --owners 099720109477 --filters "Name=name,Values=ubuntu/images/hvm-ssd/ubuntu-jammy-22.04-am
d64-server-*" "Name=state,Values=available" --query "Images[*].[ImageId,CreationDate]" --output text | sort
ami-02029c87fa31fb148      2025-04-25T07:01:24.000Z
ami-05ec1e5f7cfe5ef59     2025-06-27T06:45:08.000Z
ami-0a7d80731ae1b2435     2025-05-16T06:42:41.000Z
ami-0b529f3487c2c0e7f     2025-05-08T11:41:01.000Z
ami-0d016af584f4febe3     2025-06-17T06:49:54.000Z
```

```
C:\Users\Shivam>aws ec2 run-instances --image-id ami-05ec1e5f7cfe5ef59 --count 1 --instance-type t2.micro --key-name my-keypair --sec
urity-group-ids sg-0843096e924fd2713
{
  "ReservationId": "r-04f7b9f0f2ad5c9ca",
  "OwnerId": "410420193023",
  "Groups": [],
  "Instances": [
    {
      "Architecture": "x86_64",
      "BlockDeviceMappings": [],
      "ClientToken": "3e076e22-84a1-42dc-b9ea-030f4ea705b3",
      "EbsOptimized": false,
      "EnaSupport": true,
      "Hypervisor": "xen",
      "NetworkInterfaces": [
        {
          "Attachment": {
            "AttachTime": "2025-07-11T05:55:38+00:00",
            "AttachmentId": "eni-attach-06111e7143d5ff548",
            "DeleteOnTermination": true,
            "DeviceIndex": 0,
            "Status": "attaching",
            "NetworkCardIndex": 0
          },
          "Description": "",
          "Groups": [
            {
              "GroupId": "sg-0843096e924fd2713",
              "GroupName": "ssh-access"
            }
          ],
          "Ipv6Addresses": [],

```

2. Create a S3 bucket using CLI

[5 marks]

Ans :

1. aws --version
2. aws configure

AWS Access Key ID : AKIAV7DXTE37VTI7QLW3

AWS Secret Access Key : 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

Default region name: us-east-1

3. Successfully Create a Unique Bucket

```
aws s3api create-bucket --bucket hellohellobyebye --region us-east-1
```

4. Verify Bucket Creation

```
aws s3 ls
```

5. Upload a File to the S3 Bucket

```
aws s3 cp "C:\Users\Shivam\Downloads\outcome.txt" s3://hellohellobyebye/
```

6. Verify File Upload

```
aws s3 ls s3://hellohellobyebye/
```

7. successfully created an S3 bucket using AWS CLI

```
Microsoft Windows [Version 10.0.22631.5624]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Shivam>aws --version
aws-cli/2.27.21 Python/3.13.3 Windows/11 exe/AMD64

C:\Users\Shivam>aws configure
AWS Access Key ID [*****QLW3]: AKIAV7DXTE37VTI7QLW3
AWS Secret Access Key [*****kizL]: 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
Default region name [us-east-1]: us-east-1
Default output format [None]:

C:\Users\Shivam>aws s3api create-bucket --bucket rocketbucket --region us-east-1

An error occurred (BucketAlreadyExists) when calling the CreateBucket operation: The requested bucket name is not available. The bucket namespace is shared by all users of the system. Please select a different name and try again.

C:\Users\Shivam>aws s3api create-bucket --bucket awsbucket --region us-east-1

An error occurred (BucketAlreadyExists) when calling the CreateBucket operation: The requested bucket name is not available. The bucket namespace is shared by all users of the system. Please select a different name and try again.

C:\Users\Shivam>aws s3api create-bucket --bucket hellohellobyebye --region us-east-1
{
  "Location": "/hellohellobyebye"
}

C:\Users\Shivam>aws s3 ls
2025-07-11 11:38:56 akash-bucket-20250711-xyz123
2025-07-11 11:39:26 akash-bucket-test1
2025-07-11 11:58:06 hellohellobyebye
```

```

C:\Users\Shivam>aws s3api create-bucket --bucket rocketbucket --region us-east-1

An error occurred (BucketAlreadyExists) when calling the CreateBucket operation: The requested bucket name is not available. The bucket namespace is shared by all users of the system. Please select a different name and try again.

C:\Users\Shivam>aws s3api create-bucket --bucket awsbucket --region us-east-1

An error occurred (BucketAlreadyExists) when calling the CreateBucket operation: The requested bucket name is not available. The bucket namespace is shared by all users of the system. Please select a different name and try again.

C:\Users\Shivam>aws s3api create-bucket --bucket hellohellobyebye --region us-east-1
{
  "Location": "/hellohellobyebye"
}

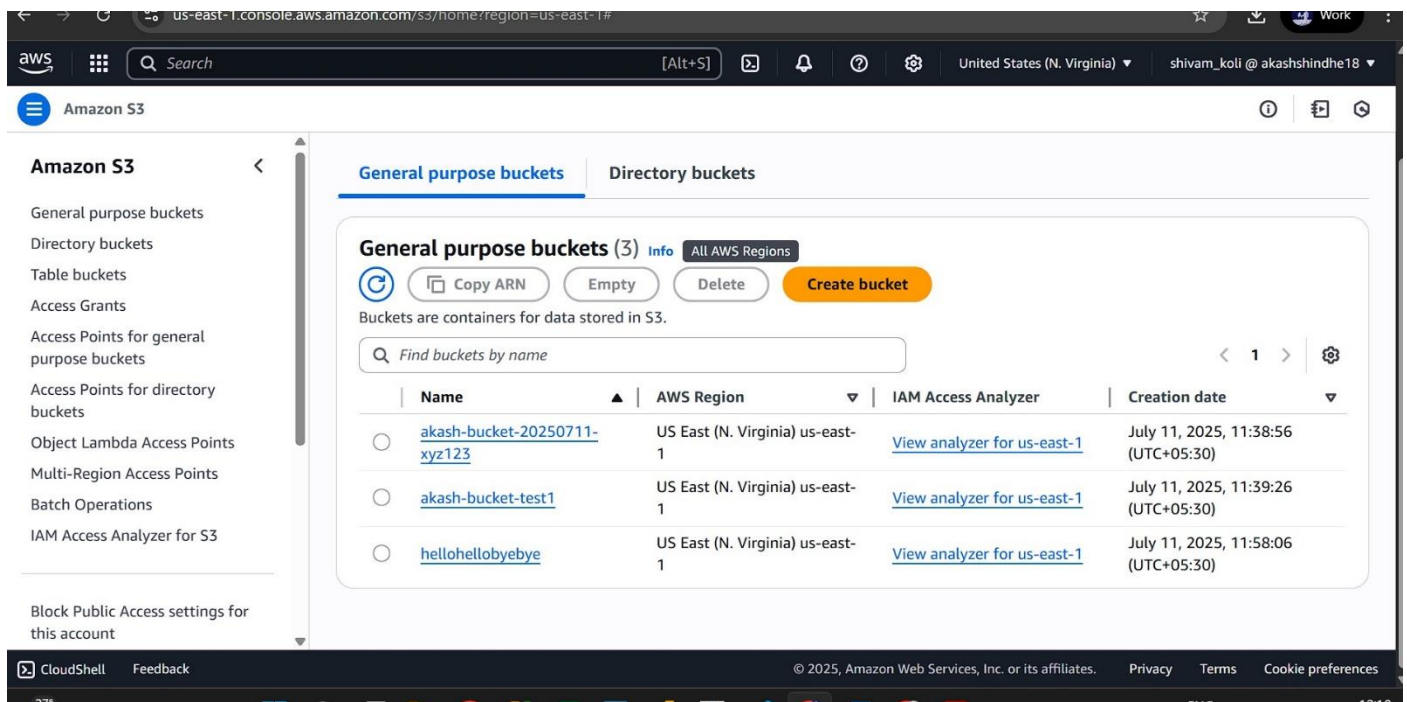
C:\Users\Shivam>aws s3 ls
2025-07-11 11:38:56 akash-bucket-20250711-xyz123
2025-07-11 11:39:26 akash-bucket-test1
2025-07-11 11:58:06 hellohellobyebye

C:\Users\Shivam>aws s3 cp "C:\Users\Shivam\Downloads\outcome.txt" s3://hellohellobyebye/
upload: Downloads\outcome.txt to s3://hellohellobyebye/outcome.txt

C:\Users\Shivam>aws s3 ls s3://hellohellobyebye/
2025-07-11 12:01:00      1033 outcome.txt

C:\Users\Shivam>

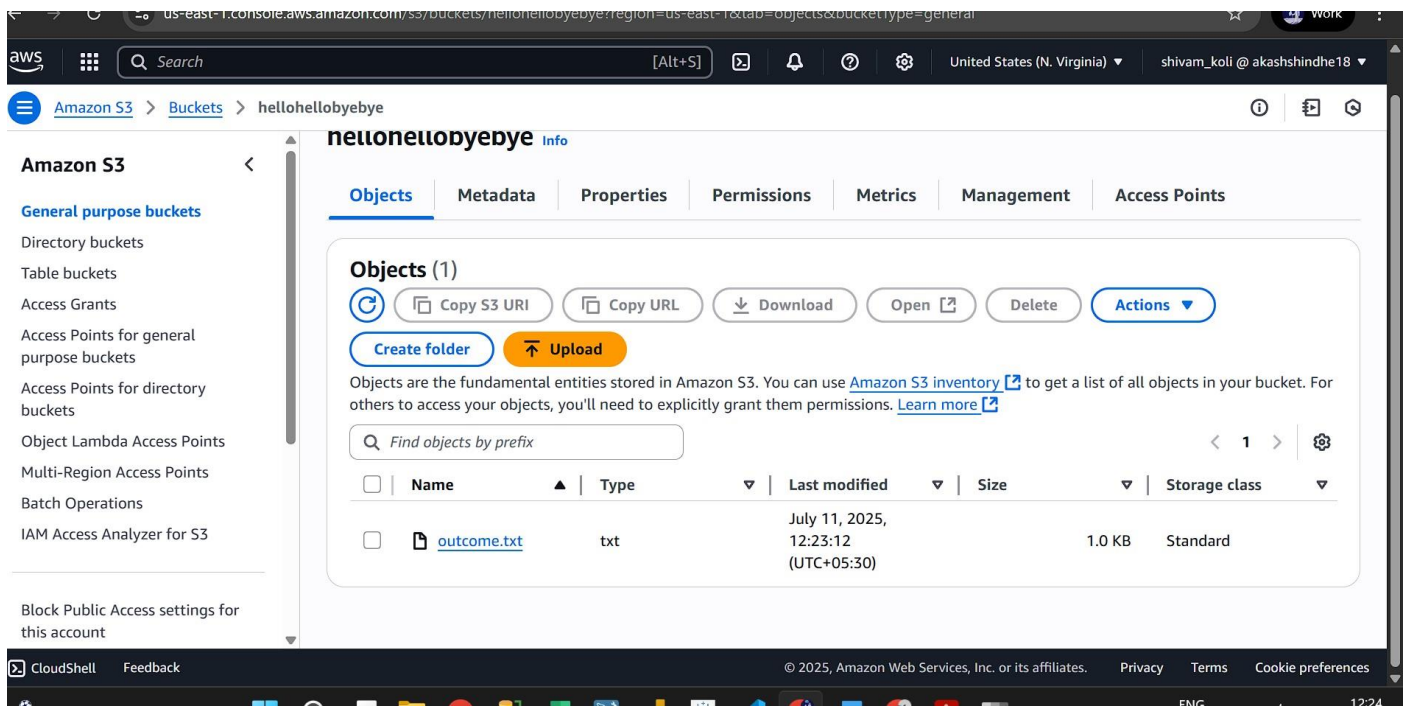
```



The screenshot shows the Amazon S3 console interface. On the left is a navigation menu with options like 'General purpose buckets', 'Directory buckets', 'Table buckets', etc. The main area is titled 'General purpose buckets (3)' and contains a table listing three buckets. Each bucket entry includes a radio button, the bucket name, the AWS Region, a link to the IAM Access Analyzer, and the creation date and time.

	Name	AWS Region	IAM Access Analyzer	Creation date
<input type="radio"/>	<a href="#">akash-bucket-20250711-xyz123</a>	US East (N. Virginia) us-east-1	<a href="#">View analyzer for us-east-1</a>	July 11, 2025, 11:38:56 (UTC+05:30)
<input type="radio"/>	<a href="#">akash-bucket-test1</a>	US East (N. Virginia) us-east-1	<a href="#">View analyzer for us-east-1</a>	July 11, 2025, 11:39:26 (UTC+05:30)
<input type="radio"/>	<a href="#">hellohellobyebye</a>	US East (N. Virginia) us-east-1	<a href="#">View analyzer for us-east-1</a>	July 11, 2025, 11:58:06 (UTC+05:30)

- Transfer a file from your local machine to the EC2 instance using SCP4. Set up AWS CLI and upload the same file to the S3 bucket **using CLI commands**. [10 marks]



Command :

1. Upload File from EC2 to S3

```
aws s3 cp /home/ubuntu/outcome.txt s3://hellohellobyebye/
```

verify it :

```
aws s3 ls s3://hellohellobyebye/
```

confirmation :

```
2025-07-11 12:23:12    1033 outcome.txt
```