

CLOUD PRACTICALS

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 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:

- Create a new user with name and select attach policies directly and select administration access click on next
- Then we need to set the access key and secret access key
- Go to command prompt and put command `aws configure` then enter access key and secret key • Enter region and format
- Got to ec2 and select ubuntu os and copy ami id
- Then type a command `aws ec2 run-instances --image-id ami-020cba7c55df1f615 --count 1 --instance-type t2.micro --key-name new --security-groups new --region us-east-1` • Then our instance will be created

Image:-

```
Command Prompt
C:\Users\shash>aws ec2 run-instances --image-id ami-020cba7c55df1f615 --count 1 --instance-type t2.micro --key-name secure --security-groups secure --region us-east-1
{
  "ReservationId": "r-03bb944b97fa840f7",
  "OwnerId": "566970125930",
  "Groups": [],
  "Instances": [
    {
      "Architecture": "x86_64",
      "BlockDeviceMappings": [],
      "ClientToken": "b44a1e71-bd2b-46be-8d80-0bc916def86a",
      "EbsOptimized": false,
      "EnaSupport": true,
      "Hypervisor": "xen",
      "NetworkInterfaces": [
        {
          "Attachment": {
            "AttachTime": "2025-07-11T05:45:12+00:00",
            "AttachmentId": "eni-attach-0236b43b9ade246d0",
            "DeleteOnTermination": true,
            "DeviceIndex": 0,
            "Status": "attaching",
            "NetworkCardIndex": 0
          },
          "Description": "",
          "Groups": [
            {
              "GroupId": "sg-0959d9b32e331f282",
              "GroupName": "secure"
            }
          ],
          "Ipv6Addresses": [],
          "MacAddress": "12:f9:2d:b1:3f:ef",
          "NetworkInterfaceId": "eni-07ac7a3cf81d2b148",
          "OwnerId": "566970125930",
          "PrivateDnsName": "ip-172-31-83-247.ec2.internal",
          "PrivateIpAddress": "172.31.83.247",
          "PrivateIpAddresses": [
            {
              "Primary": true,
```

2. Create a S3 bucket **using CLI**

[5 marks]

Ans:

- To create s3 bucket we need to type a command `aws s3api create-bucket --bucket bucket-name --origin origin-name`
- Then it will give like this `C:\Users\shash>aws s3api create-bucket --bucket rsadmin123 --region us-east-1`
- ```
{
```
- ```
"Location": "/rsadmin123"
```
- ```
}
```
- It indicates bucket is created

Image:-

3. 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]

**Amazon S3**

General purpose buckets  
Directory buckets  
Table buckets  
Access Grants  
Access Points for general purpose buckets  
Access Points for directory buckets  
Object Lambda Access Points  
Multi-Region Access Points  
Batch Operations  
IAM Access Analyzer for S3

Block Public Access settings for this account

**Storage Lens**  
Dashboards  
Storage Lens groups  
AWS Organizations settings

**Account snapshot - updated every 24 hours** All AWS Regions [View Storage Lens dashboard](#)

Storage lens provides visibility into storage usage and activity trends. Metrics don't include directory buckets. [Learn more](#)

**General purpose buckets** Directory buckets

**General purpose buckets (2)** Info All AWS Regions [Refresh](#) [Copy ARN](#) [Empty](#) [Delete](#) [Create bucket](#)

Buckets are containers for data stored in S3.

Find buckets by name

| Name                        | AWS Region                      | IAM Access Analyzer                         | Creation date                       |
|-----------------------------|---------------------------------|---------------------------------------------|-------------------------------------|
| <a href="#">rsadmin123</a>  | US East (N. Virginia) us-east-1 | <a href="#">View analyzer for us-east-1</a> | July 11, 2025, 11:20:37 (UTC+05:30) |
| <a href="#">rsadmin1234</a> | US East (N. Virginia) us-east-1 | <a href="#">View analyzer for us-east-1</a> | July 9, 2025, 14:52:13 (UTC+05:30)  |

```
C:\Users\shash>aws s3api create-bucket --bucket rsadmin123 --region us-east-1
{
 "Location": "/rsadmin123"
}

C:\Users\shash>
```

Ans:

- to transfer file from local machine to ec2 instance use the command
- `scp -i "C:\Users\shash\Downloads\secure.pem" "C:\Users\shash\Downloads\sample.txt.txt" ec2user@3.83.2.6:/home/ec2-user/`
- in the above command we need to put ip address of instance and address of the images and keypair
- then use command `aws s3 cp /home/ec2-user/sample.txt s3://rsadmin123/`

us-east-1.console.aws.amazon.com/s3/buckets/rsadmin123?region=us-east-1&tab=objects&bucketType=general

Amazon S3 Buckets rsadmin123

rsadmin123 Info

Objects Metadata Properties Permissions Metrics Management Access Points

Objects (1)

Objects are the fundamental entities stored in Amazon S3. You can use [Amazon S3 inventory](#) to get a list of all objects in your bucket. For others to access your objects, you'll need to explicitly grant them permissions. [more](#)

Find objects by prefix

| Name           | Type | Last modified                       | Size | Storage class |
|----------------|------|-------------------------------------|------|---------------|
| sample.txt.txt | txt  | July 11, 2025, 12:10:56 (UTC+05:30) | 0 B  | Standard      |

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- then file will uploaded successfully to the bucket

```
C:\Users\shash>scp -i "C:\Users\shash\Downloads\secure.pem" "C:\Users\shash\Downloads\sample.txt.txt" ubuntu@3.83.2.6:/home/ubuntu/sample.txt.txt
C:\Users\shash>ssh -i "C:\Users\shash\Downloads\secure.pem" ubuntu@3.83.2.6
Welcome to Ubuntu 24.04.2 LTS (GNU/Linux 6.8.0-1029-aws x86_64)

 * Documentation: https://help.ubuntu.com
 * Management: https://landscape.canonical.com
 * Support: https://ubuntu.com/pro

System information as of Fri Jul 11 07:02:17 UTC 2025

System load: 0.0 Processes: 103
Usage of /: 25.6% of 6.71GB Users logged in: 0
Memory usage: 20% IPv4 address for enx0: 172.31.83.247
Swap usage: 0%

Expanded Security Maintenance for Applications is not enabled.

0 updates can be applied immediately.

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

The list of available updates is more than a week old.
To check for new updates run: sudo apt update

To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

ubuntu@ip-172-31-83-247:~$
```