



D Y PATIL
INTERNATIONAL
UNIVERSITY
AKURDI PUNE



School of Computer Science, Engineering and Applications(SCSEA)
B.C.A. TY (CCSA)
Subject : Infrastructure Orchestration (P)

Name of the Student: Prakhar Anil Sharma

PRN: 20220801121

Title of Practical : Access S3 Bucket from an EC2 instance

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.

The screenshot shows the 'Create bucket' wizard in the AWS S3 service. The 'General configuration' step is displayed. The 'Bucket name' field contains 'prakhar07'. Below it, there's a 'Copy settings from existing bucket' section with a dropdown menu set to 'arn:aws:s3:::prakhar07'. A 'Create bucket' button is at the bottom. The 'Object Ownership' section follows, with two radio button options: 'S3A object ownership' (selected) and 'AQS enabled'. At the bottom, there's a note about 'Block Public Access settings for this bucket' and a 'Create bucket' button.

4. Click Create bucket to complete the setup.

PRN: 20220801121



School of Computer Science, Engineering and Applications(SCSEA)
B.C.A. TY (CCSA)
Subject : Infrastructure Orchestration (P)

Name of the Student: Prakhar Anil Sharma **PRN:** 20220801121

Title of Practical : Access S3 Bucket from an EC2 instance

The screenshot shows the AWS S3 buckets page. A green success message at the top states: "Successfully created bucket 'prakhar07'. To upload files and folders, or to configure additional bucket settings, choose View details." Below this, the "General purpose buckets" section lists one bucket: "prakhar07". The bucket details show it was created on November 13, 2024, at 00:03:55 (UTC+05:30) in the "Asia Pacific (Mumbai) ap-south-1" region. There are buttons for "Copy ARN", "Empty", "Delete", and "Create bucket".

Step 2 :- Create an Ec2 Instance with following configuration:-

- Name of Instance :- S3-IAM-1121
- AMI Image :- Ubuntu
- Instance type :- t2.micro
- Key Pair :- Create new key pair or select existing
- Network Setting :- Leave all Setting Default
- Launch the Instance



School of Computer Science, Engineering and Applications(SCSEA)
B.C.A. TY (CCSA)
Subject : Infrastructure Orchestration (P)

Name of the Student: Prakhar Anil Sharma

PRN: 20220801121

Title of Practical : Access S3 Bucket from an EC2 instance

The screenshot shows the AWS CloudShell interface for launching an EC2 instance. In the 'Name and tags' section, the name 'S3-IAM-1121' is entered. Under 'Application and OS Images (Amazon Machine Image)', the 'Ubuntu Server 24.04 LTS (HVM, SSD Volume Type)' AMI is selected. The 't2.micro' instance type is chosen in the 'Instance type' section. In the 'Key pair (login)' section, 'BCA-CCSA-TY-1121' is specified. Network settings include 'vpc-08ffe06795a9e200' and 'subnet-0f0a0a0a0a0a0a0a'. The 'Summary' panel shows 1 instance being launched with the Canonical, Ubuntu, 24.04, amd64 AMI. A tooltip for the 'Free tier' is visible, stating: 'Free tier: In your first year includes 750 hours of t2.micro (or 13 micro in the Regions in which t2.micro is unavailable) instance usage on free tier AMIs per month, 750 hours of public IPv4 address usage per month, 30 GB of EBS storage, 2 million I/Os, 1 GB of snapshots, and 100 GB of bandwidth to the internet.' The 'Launch Instance' button is at the bottom right.

This screenshot shows the continuation of the EC2 instance configuration. The 'Instance type' section now lists 't2.micro' as 'Free tier eligible'. The 'Key pair (login)' section shows 'BCA-CCSA-TY-1121' selected. The 'Network settings' section includes 'Network: vpc-08ffe06795a9e200', 'Subnet: subnet-0f0a0a0a0a0a0a0a', and 'Auto-assign public IP: Enabled'. The 'Summary' panel remains identical to the previous screenshot, showing 1 instance being launched with the Canonical, Ubuntu, 24.04, amd64 AMI. The 'Launch Instance' button is again at the bottom right.



School of Computer Science, Engineering and Applications(SCSEA)
B.C.A. TY (CCSA)
Subject : Infrastructure Orchestration (P)

Name of the Student: Prakhar Anil Sharma **PRN:** 20220801121

Title of Practical : Access S3 Bucket from an EC2 instance

The screenshot shows the 'Launch an instance | EC2 | ap-south-1' wizard. In the 'Network settings' section, it shows a VPC (vpc-08ffe06795a9e200) and subnet (No preference). It includes options for creating or selecting a security group, allowing SSH, HTTPS, and HTTP traffic. In the 'Summary' section, it shows 1 instance, the AMI (Canonical, Ubuntu, 24.04, amd64), instance type (t2.micro), and storage (1 volume - 8 GiB gp3). A callout box highlights the 'Free tier' information: 750 hours of t2.micro (or t3.micro in regions where it's available) of usage on free tier AMIs per month, 750 hours of public IPv4 address usage per month, 30 GiB of EBS storage, 2 million I/Os, 1 GB of snapshots, and 100 GB of bandwidth to the internet. At the bottom, there are 'Cancel', 'Launch instance', and 'Preview code' buttons.

The screenshot shows the 'Instances | EC2 | ap-south-1' page. The left sidebar shows navigation options like Dashboard, EC2 Global View, Events, Instances, Instances Types, Images, Elastic Block Store, Network & Security, and Load Balancing. The main area displays a table titled 'Instances (1)' with one row. The row details are: Name (S3-IAM-1121), Instance ID (i-0d6c617496621dc72), Instance state (Running), Instance type (t2.micro), Status check (2/2 checks passed), Alarm status (View alarms), Availability Zone (ap-south-1b), Public IPv4 DNS (ec2-13-235-74-116.ap...), and Public IPv4 IP (13.235.74.116). A 'Launch instances' button is visible at the top right of the table. The bottom of the page includes standard AWS footer links: CloudShell, Feedback, © 2024, Amazon Web Services, Inc. or its affiliates., Privacy, Terms, and Cookie preferences.

Step 2 :- Create an Ec2 Instance with following configuration:-



School of Computer Science, Engineering and Applications(SCSEA)
B.C.A. TY (CCSA)
Subject : Infrastructure Orchestration (P)

Name of the Student: Prakhar Anil Sharma **PRN:** 20220801121

Title of Practical : Access S3 Bucket from an EC2 instance

- Select the Instance & Connect it.

Step3. Create IAM User

1.give user name-S3-CCSA-TY-1121

2.Set Permission-s3fullAccess

3.create user

A screenshot of the AWS IAM 'Create user' wizard. The page title is 'Specify user details'. On the left, there's a sidebar with three steps: 'Step 1 Specify user details' (selected), 'Step 2 Set permissions', and 'Step 3 Review and create'. The main area shows a 'User details' section with a 'User name' field containing 'S3-CCSA-TY-1121'. Below the field is a note: 'The user name can have up to 64 characters. Valid characters: A-Z, a-z, 0-9, and + - . _ (Hyphen)' and an optional checkbox for 'Provide user access to the AWS Management Console - optional'. At the bottom right are 'Cancel' and 'Next Step' buttons.



School of Computer Science, Engineering and Applications(SCSEA) B.C.A. TY (CCSA) Subject : Infrastructure Orchestration (P)

Name of the Student: Prakhar Anil Sharma PRN: 20220801121

Title of Practical : Access S3 Bucket from an EC2 instance

The screenshot shows the 'Create user' wizard in the AWS IAM console. The current step is 'Set permissions'. In the 'Permissions options' section, the 'Attach policies directly' radio button is selected. Below it, a table lists a single policy: 'AmazonS3FullAccess' (AWS managed). The 'Permissions policies' section shows a search bar with 'amazonS3fullaccess' and a table with one result. At the bottom right, there are 'Cancel', 'Previous', and 'Next' buttons.

The screenshot shows the 'Users' page in the AWS IAM console. A green banner at the top says 'User created successfully'. The main table displays one user: 'S3-CCSA-TY-1121'. The table has columns for User name, Path, Group, Last activity, MFA, Password age, Console last sign-in, Access key ID, and Active key age. The 'User name' column shows the value 'S3-CCSA-TY-1121'. The 'Access management' sidebar is visible on the left.

Step4.go to user.

2.Create access key

PRN: 20220801121



School of Computer Science, Engineering and Applications(SCSEA) B.C.A. TY (CCSA)

Subject : Infrastructure Orchestration (P)

Name of the Student: Prakhar Anil Sharma PRN: 20220801121

Title of Practical : Access S3 Bucket from an EC2 instance

3.Select CLI

4.Tick check box

5.next

6.Copy access key and secret key

7.Done

The screenshot shows the AWS IAM 'Create access key' wizard, Step 1: Use case. The page title is 'Create access key [IAM | Global]'. The URL is 'us-east-1.console.aws.amazon.com/iam/home?region=ap-south-1#users/details/S3-CCSA-TY-1121/create-access-key'. On the left, there's a sidebar with 'Step 1: Access key best practices & alternatives', 'Step 2 - optional: Set description tag', and 'Step 3: Retrieve access keys'. The main content area has a heading 'Access key best practices & alternatives' with a note about avoiding long-term credentials. Below is a section titled 'Use case' with several options:

- Command Line Interface (CLI): You plan to use this access key to enable the AWS CLI to access your AWS account.
- Local code: You plan to use this access key to enable application code in a local development environment to access your AWS account.
- Application running on an AWS compute service: You plan to use this access key to enable application code running on an AWS compute service like Amazon EC2, Amazon ECS, or AWS Lambda to access your AWS account.
- Third-party service: You plan to use this access key to enable access for a third-party application or service that monitors or manages your AWS resources.
- Application running outside AWS: You plan to use this access key to authenticate workloads running in your data center or other infrastructure outside of AWS that needs to access your AWS resources.
- Other: Your use case is not listed here.

At the bottom, there's a section titled 'Alternatives recommended' with two bullet points:

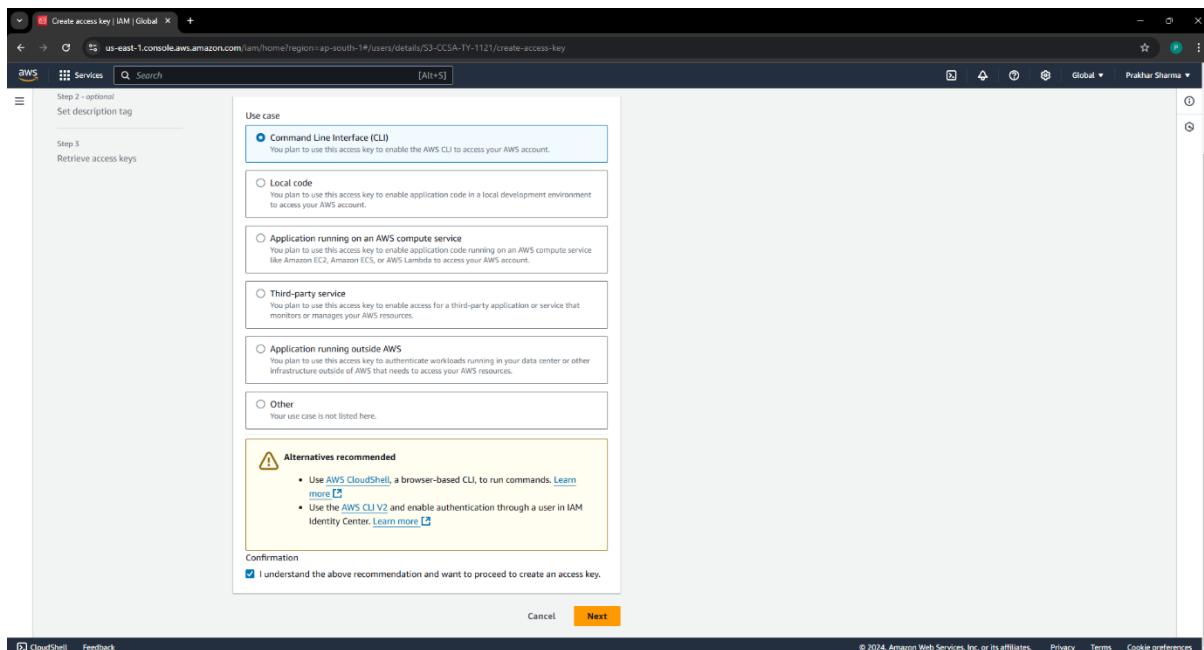
- Use AWS CloudShell, a browser-based CLI, to run commands. [Learn more](#)
- Use the AWS CLI V2 and enable authentication through a user in IAM Identity Center. [Learn more](#)



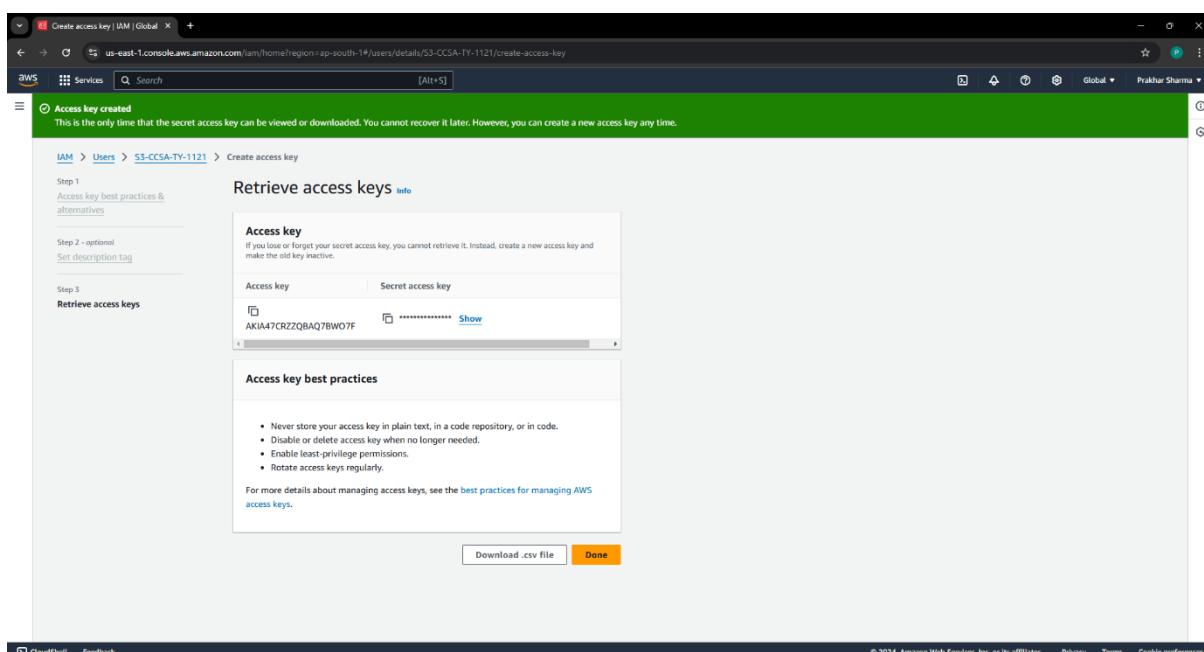
School of Computer Science, Engineering and Applications(SCSEA)
B.C.A. TY (CCSA)
Subject : Infrastructure Orchestration (P)

Name of the Student: Prakhar Anil Sharma **PRN:** 20220801121

Title of Practical : Access S3 Bucket from an EC2 instance



The screenshot shows the 'Create access key' wizard on the AWS IAM console. It's Step 2 of 3, titled 'Set use case'. The 'Command Line Interface (CLI)' option is selected, indicated by a blue border. A callout box titled 'Alternatives recommended' lists two options: 'Use AWS CloudShell, a browser-based CLI, to run commands.' and 'Use the AWS CLI v2 and enable authentication through a user in IAM Identity Center.' Both options have a 'Learn more' link.



The screenshot shows the 'Create access key' wizard completed. A green banner at the top says 'Access key created'. Below it, the access key details are listed: 'Access key' (AKIA47CRZZQBAQ7BWO7F) and 'Secret access key' (masked). A 'Show' link is available for the secret key. A section titled 'Access key best practices' provides several tips. At the bottom are 'Download .csv file' and 'Done' buttons.

Step5.connect the instance

Step6.run the following command in terminal

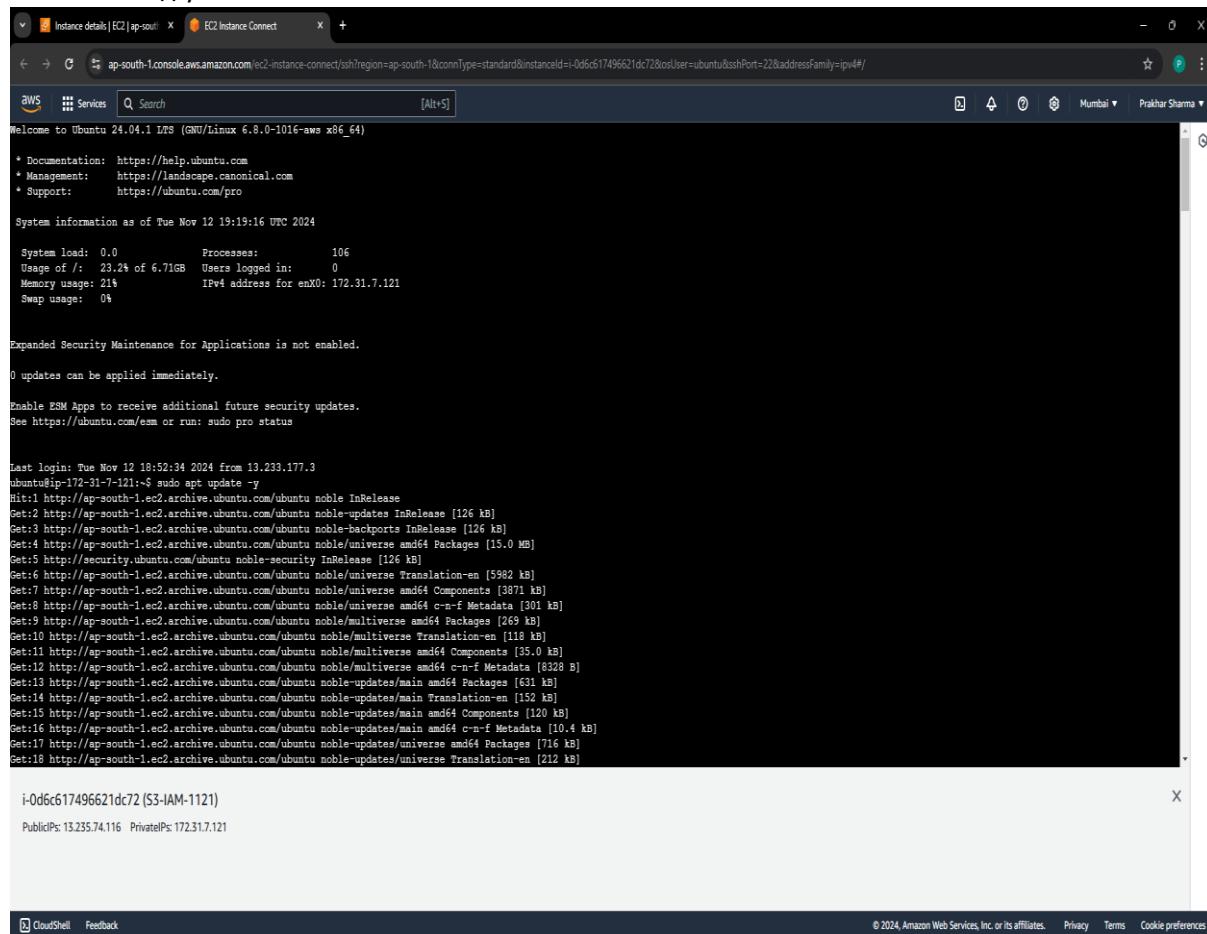


School of Computer Science, Engineering and Applications(SCSEA)
B.C.A. TY (CCSA)
Subject : Infrastructure Orchestration (P)

Name of the Student: Prakhar Anil Sharma **PRN:** 20220801121

Title of Practical : Access S3 Bucket from an EC2 instance

```
sudo apt update -y
sudo apt upgrade -y
sudo apt install awscli -y
aws configure
aws s3 ls
aws s3 ls s3://your-bucket-name
```



The screenshot shows a terminal window within an EC2 Instance Connect session. The terminal displays the execution of several AWS CLI commands. The output includes system information, package updates, and a detailed list of files being downloaded for an S3 bucket.

```
sudo apt update -y
sudo apt upgrade -y
sudo apt install awscli -y
aws configure
aws s3 ls
aws s3 ls s3://your-bucket-name

Welcome to Ubuntu 24.04.1 LTS (GNU/Linux 6.8.0-1016-aws x86_64)

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

System information as of Tue Nov 12 19:19:16 UTC 2024

 System load: 0.0           Processes:          106
 Usage of `/': 23.2% of 6.71GB  Users logged in:      0
 Memory usage: 21%           IPv4 address for enX0: 172.31.7.121
 Swap usage:  0%             IPv6 address for enX0: fe80::42:1ff:fe7c:121%enX0

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

Last login: Tue Nov 12 18:52:04 2024 from 13.233.177.3
ubuntu@ip-172-31-7-121:~$ sudo apt update -y
Hit:1 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble InRelease [126 kB]
Get:2 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates InRelease [126 kB]
Get:3 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-backports InRelease [126 kB]
Get:4 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 Packages [15.0 MB]
Get:5 http://security.ubuntu.com/ubuntu noble-security InRelease [126 kB]
Get:6 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/universe Translation-en [5982 kB]
Get:7 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 Components [3871 kB]
Get:8 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 c-n-f Metadata [301 kB]
Get:9 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/multiverse amd64 Packages [269 kB]
Get:10 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/multiverse Translation-en [118 kB]
Get:11 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/multiverse amd64 Components [35.0 kB]
Get:12 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/multiverse amd64 c-n-f Metadata [6328 kB]
Get:13 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 Packages [631 kB]
Get:14 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main Translation-en [152 kB]
Get:15 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 Components [120 kB]
Get:16 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 c-n-f Metadata [10.4 kB]
Get:17 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/universe amd64 Packages [716 kB]
Get:18 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/universe Translation-en [212 kB]

i-0d6c617496621dc72 (S3-IAM-1121)
PublicIPs: 13.235.74.116  PrivateIPs: 172.31.7.121
```

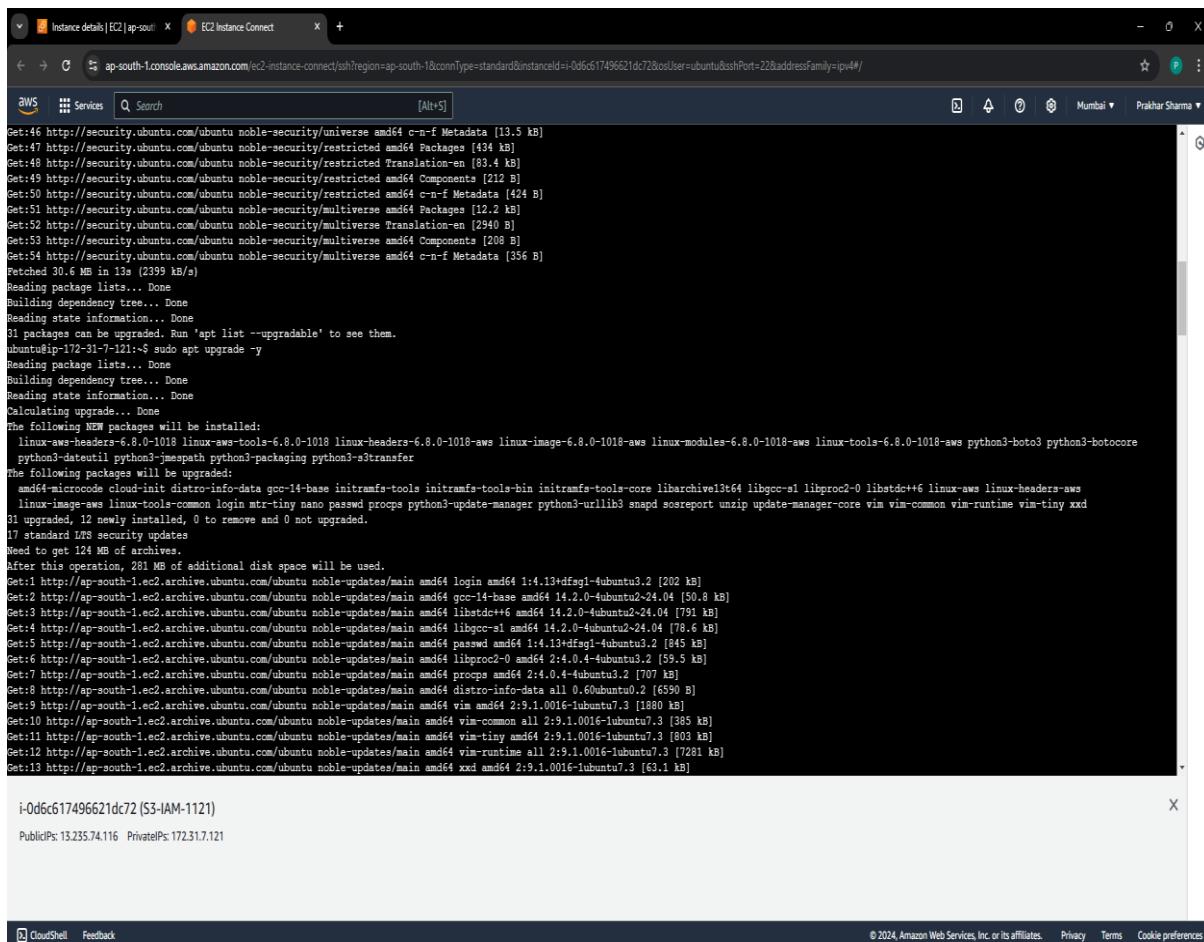
© 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences



**School of Computer Science, Engineering and Applications(SCSEA)
B.C.A. TY (CCSA)**
Subject : Infrastructure Orchestration (P)

Name of the Student: Prakhar Anil Sharma **PRN:** 20220801121

Title of Practical : Access S3 Bucket from an EC2 instance



The screenshot shows a terminal window titled "Instance details | EC2 | ap-south-1" with the URL "ap-south-1.console.aws.amazon.com/ec2-instance-connect/ssh?region=ap-south-1&connType=standard&instanceId=i-0d6c617496621dc72&osUser=ubuntu&sshPort=22&addressFamily=ipv4#/".

```
Get:46 http://security.ubuntu.com/ubuntu noble-security/universe amd64 c-n-f Metadata [13.5 kB]
Get:47 http://security.ubuntu.com/ubuntu noble-security/restricted amd64 Packages [434 kB]
Get:48 http://security.ubuntu.com/ubuntu noble-security/restricted Translation-en [83.4 kB]
Get:49 http://security.ubuntu.com/ubuntu noble-security/restricted amd64 Components [212 kB]
Get:50 http://security.ubuntu.com/ubuntu noble-security/restricted amd64 c-n-f Metadata [424 kB]
Get:51 http://security.ubuntu.com/ubuntu noble-security/multiverse amd64 Packages [12.2 kB]
Get:52 http://security.ubuntu.com/ubuntu noble-security/multiverse Translation-en [2940 B]
Get:53 http://security.ubuntu.com/ubuntu noble-security/multiverse amd64 Components [208 kB]
Get:54 http://security.ubuntu.com/ubuntu noble-security/multiverse amd64 c-n-f Metadata [356 B]
Fetched 30.6 MB in 13s (2399 kB/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
31 packages can be upgraded. Run 'apt list --upgradable' to see them.
ubuntu@ip-172-31-7-121:~$ sudo apt upgrade -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
Calculating upgrade... Done
The following NEW packages will be installed:
  linux-aws-headers-6.8.0-1018 linux-aws-tools-6.8.0-1018 linux-headers-6.8.0-1018-aws linux-image-6.8.0-1018-aws linux-modules-6.8.0-1018-aws linux-tools-6.8.0-1018-aws python3-boto3 python3-botocore
The following packages will be upgraded:
  amd64-microcode cloud-init distro-info-data gcc-14-base initramfs-tools initramfs-tools-bin initramfs-tools-core libarchive13t64 libgcc-s1 libproc2-0 libstdc++6 linux-aws linux-headers-aws
  linux-image-aws linux-tools-common login mtr-tiny nano passwd procps python3-update-manager python3-urllib3 snapd socsreport unzip update-manager-core vim vim-common vim-runtime vim-tiny xxd
31 upgraded, 12 newly installed, 0 to remove and 0 not upgraded.
17 standard LTS security updates
Need to get 124 MB of archives.
Need to get 124 MB of archives.
After this operation, 281 MB of additional disk space will be used.
Get:1 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 login amd64 1:4.13+dfsg1-4ubuntu3.2 [202 kB]
Get:2 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 gcc-14-base amd64 14.2.0-4ubuntu2-24.04 [50.8 kB]
Get:3 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 libstdc++6 amd64 14.2.0-4ubuntu2-24.04 [79.0 kB]
Get:4 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 libgcc-s1 amd64 14.2.0-4ubuntu2-24.04 [78.6 kB]
Get:5 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 passwd amd64 1:4.13+dfsg1-4ubuntu3.2 [845 kB]
Get:6 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 libproc2-0 amd64 2:4.0.4-4ubuntu3.2 [59.5 kB]
Get:7 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 procps amd64 2:4.0.4-4ubuntu3.2 [707 kB]
Get:8 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 distro-info-data all 0.60ubuntu0.2 [6590 B]
Get:9 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 vim amd64 2:9.1.0016-ubuntu7.3 [1800 kB]
Get:10 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 vim-common all 2:9.1.0016-ubuntu7.3 [385 kB]
Get:11 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 vim-tiny amd64 2:9.1.0016-ubuntu7.3 [803 kB]
Get:12 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 vim-runtime all 2:9.1.0016-ubuntu7.3 [7281 kB]
Get:13 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 xxd amd64 2:9.1.0016-ubuntu7.3 [63.1 kB]
```

i-0d6c617496621dc72 (S3-IAM-1121)

PublicIPs: 13.235.74.116 PrivateIPs: 172.31.7.121

© 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

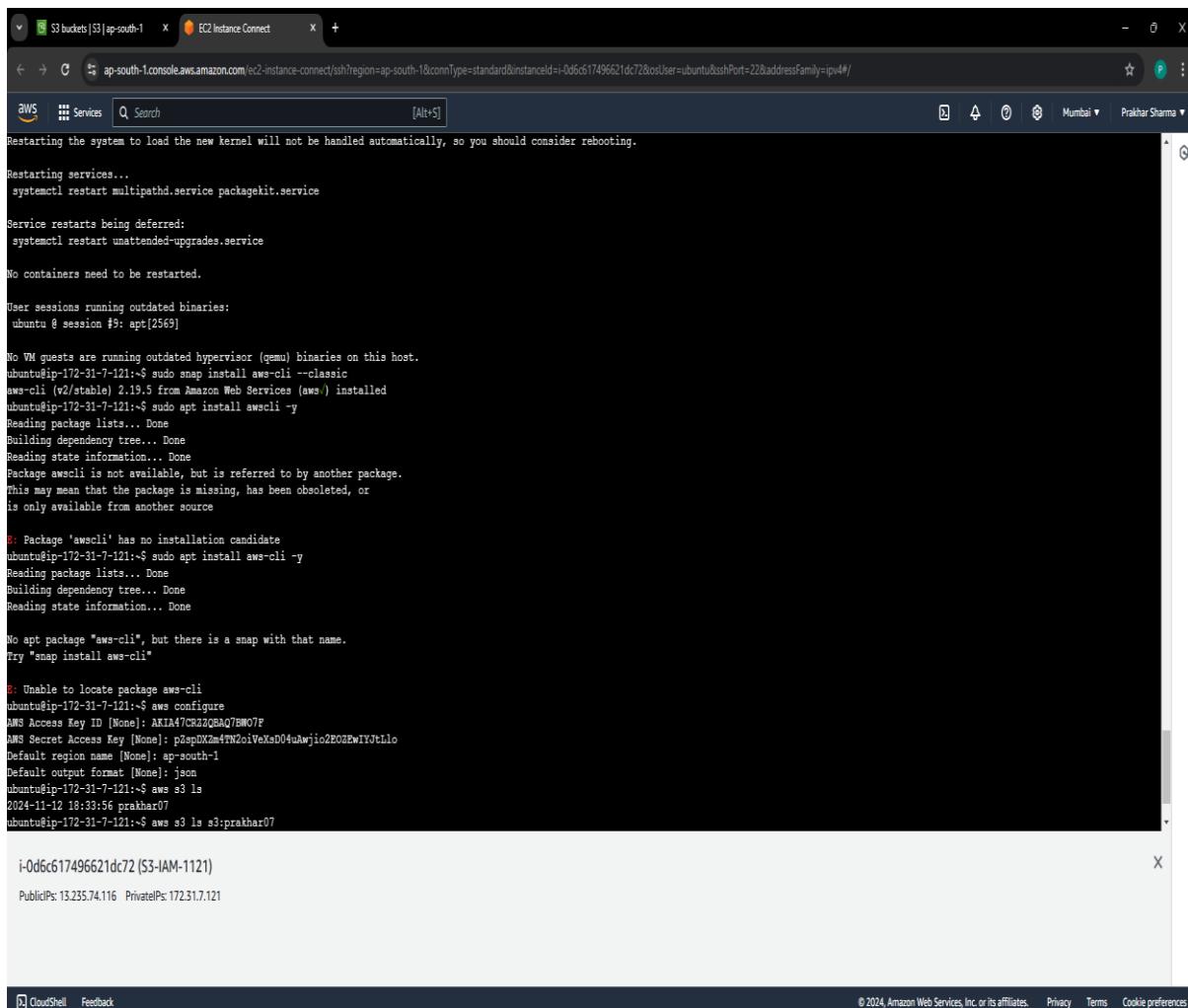
PRN: 20220801121



School of Computer Science, Engineering and Applications(SCSEA)
B.C.A. TY (CCSA)
Subject : Infrastructure Orchestration (P)

Name of the Student: Prakhar Anil Sharma **PRN:** 20220801121

Title of Practical : Access S3 Bucket from an EC2 instance



```
ubuntu@ip-172-31-7-121:~$ sudo snap install aws-cli --classic
aws-cli (v2/stable) 2.19.5 from Amazon Web Services (aws.) installed
ubuntu@ip-172-31-7-121:~$ sudo apt install awscli
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
Package awscli is not available, but is referred to by another package.
This may mean that the package is missing, has been obsoleted, or
is only available from another source

R: Package "awscli" has no installation candidate
ubuntu@ip-172-31-7-121:~$ sudo apt install aws-cli -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done

No apt package "aws-cli", but there is a snap with that name.
Try "snap install aws-cli"

B: Unable to locate package aws-cli
ubuntu@ip-172-31-7-121:~$ aws configure
AWS Access Key ID [None]: ARIA47CRZQBAQ7BMOTF
AWS Secret Access Key [None]: p4spDXzma4TNzoiVeXsD04uAwjio2E0ZEWINJtLlo
Default region name [None]: ap-south-1
Default output format [None]: json
ubuntu@ip-172-31-7-121:~$ aws s3 ls
2024-11-12 10:33:56 prakhar07
ubuntu@ip-172-31-7-121:~$ aws s3 ls s3:prakhar07

i-0d6c617496621dc72 (S3-IAM-1121)
PublicIP: 13.235.74.116 PrivateIP: 172.31.7.121
```

© 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

PRN: 20220801121



D Y PATIL
INTERNATIONAL
UNIVERSITY
AKURDI PUNE

School of Computer Science, Engineering and Applications(SCSEA)
B.C.A. TY (CCSA)
Subject : Infrastructure Orchestration (P)

Name of the Student: Prakhar Anil Sharma

PRN: 20220801121

Title of Practical : Access S3 Bucket from an EC2 instance

```
awscli [S] s3 ls
awscli [S] aws configure
awscli [S] aws s3 ls
awscli [S] aws s3 cp index.html s3://prakhar07
awscli [S] aws s3 ls
```

The terminal session shows the following steps:

- Initial command: `s3 ls`
- Configuration step: `aws configure`
- Output of configuration: AWS Access Key ID: AKIA7C3KQGJGQH7V7F7, AWS Secret Access Key: playMzxtkT20l9e5d4uhjwZEMZWTpLle, Default region name: us-east-1, Default output format: json.
- Uploading file: `aws s3 cp index.html s3://prakhar07`
- Listing contents of the S3 bucket: `aws s3 ls`

i-0d6c617496621dc72 (S3-IAM-1121)

Public IP: 13.235.24.116 Private IP: 172.31.7.121

© 2024 Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookies preferences

We have successfully access the s3 bucket through EC2 instance.

Prakhar Anil Sharma

PRN: 20220801121

1
2