

# AWS - USING LAMBDA FUNCTION DELETING THE EMPTY S3 BUCKET

AWS Lambda is a **serverless compute service** provided by Amazon Web Services (AWS). It allows you to run code without provisioning or managing servers. Lambda automatically scales based on the workload, and you only pay for the compute time used.

## Key Features of AWS Lambda:

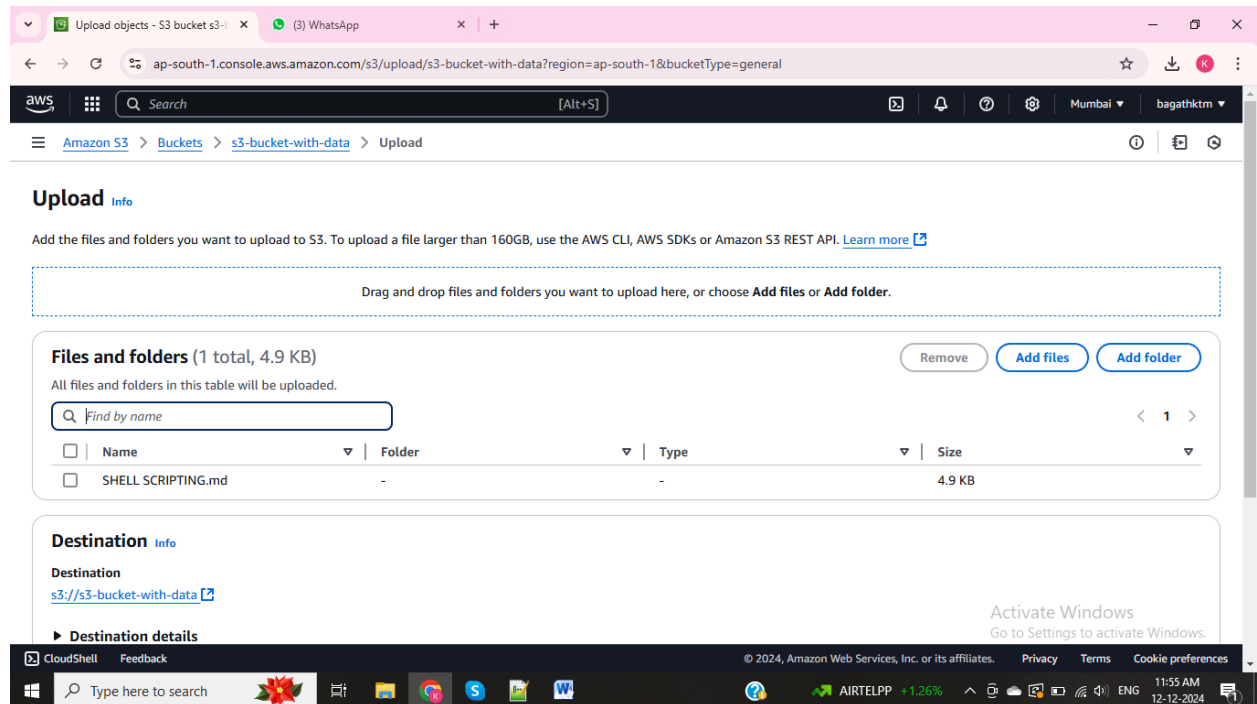
1. **Serverless:** No need to manage infrastructure; AWS handles server management.
2. **Event-Driven:** Executes code in response to events (e.g., HTTP requests, S3 events, DynamoDB updates).
3. **Cost-Effective:** Billed based on the number of requests and execution time.
4. **Automatic Scaling:** Scales automatically to handle varying workloads.

Created two buckets are s3 bucket with data and s3 bucket without data

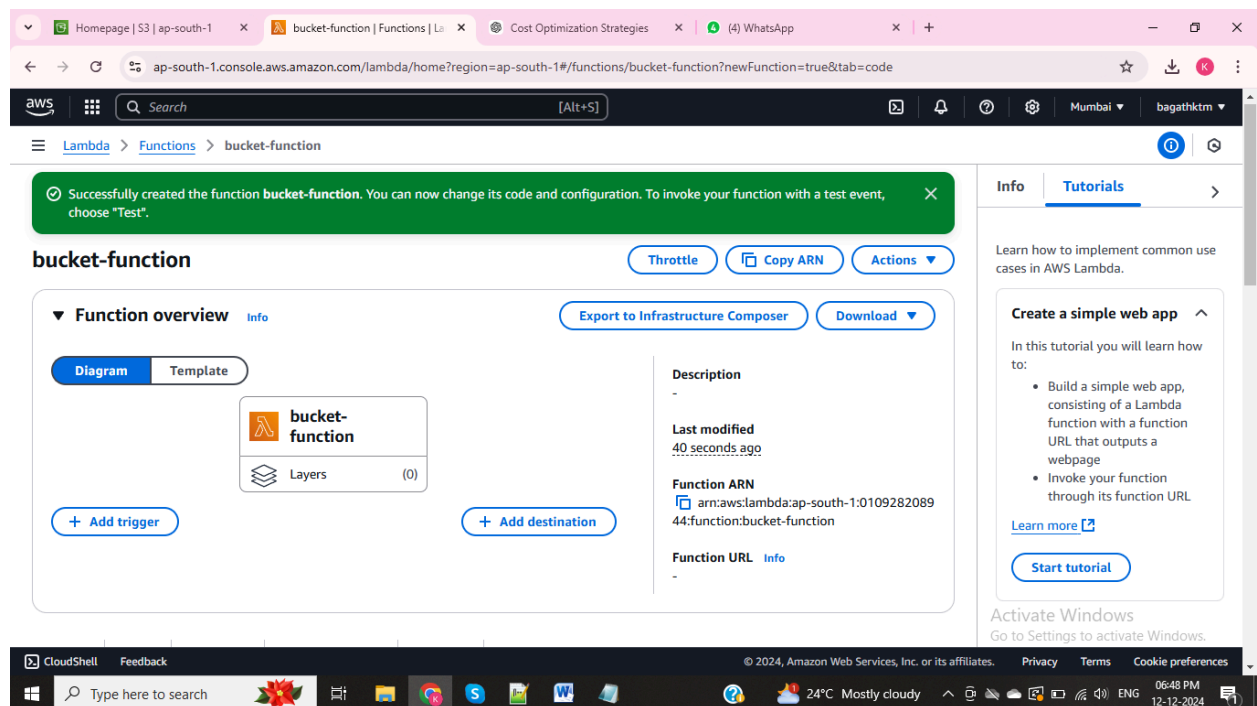
The screenshot displays the AWS S3 console interface. At the top, there's a navigation bar with the AWS logo, a search bar, and a user profile. Below this, a banner for 'Account snapshot' is visible. The main content area is titled 'General purpose buckets (2)' and includes a table listing the buckets. The table has columns for Name, AWS Region, IAM Access Analyzer, and Creation date. Two buckets are listed: 's3-bucket-with-data' and 's3-bucket-without-data', both in the 'Asia Pacific (Mumbai) ap-south-1' region. The console also shows a 'Create bucket' button and a 'Find buckets by name' search bar.

| Name                                   | AWS Region                       | IAM Access Analyzer                          | Creation date                           |
|--|----------------------------------|--|---|
| <a href="#">s3-bucket-with-data</a>    | Asia Pacific (Mumbai) ap-south-1 | <a href="#">View analyzer for ap-south-1</a> | December 12, 2024, 11:53:07 (UTC+05:30) |
| <a href="#">s3-bucket-without-data</a> | Asia Pacific (Mumbai) ap-south-1 | <a href="#">View analyzer for ap-south-1</a> | December 12, 2024, 11:53:43 (UTC+05:30) |

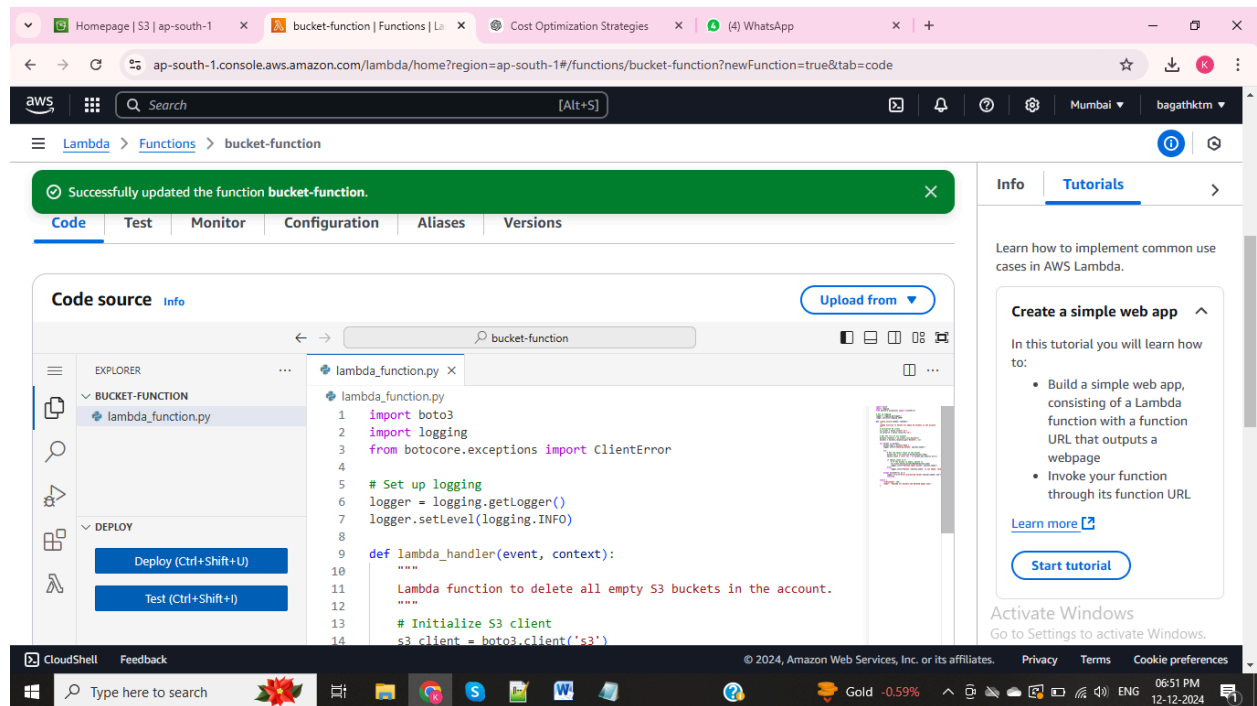
In s3 bucket with data uploaded a file in that bucket



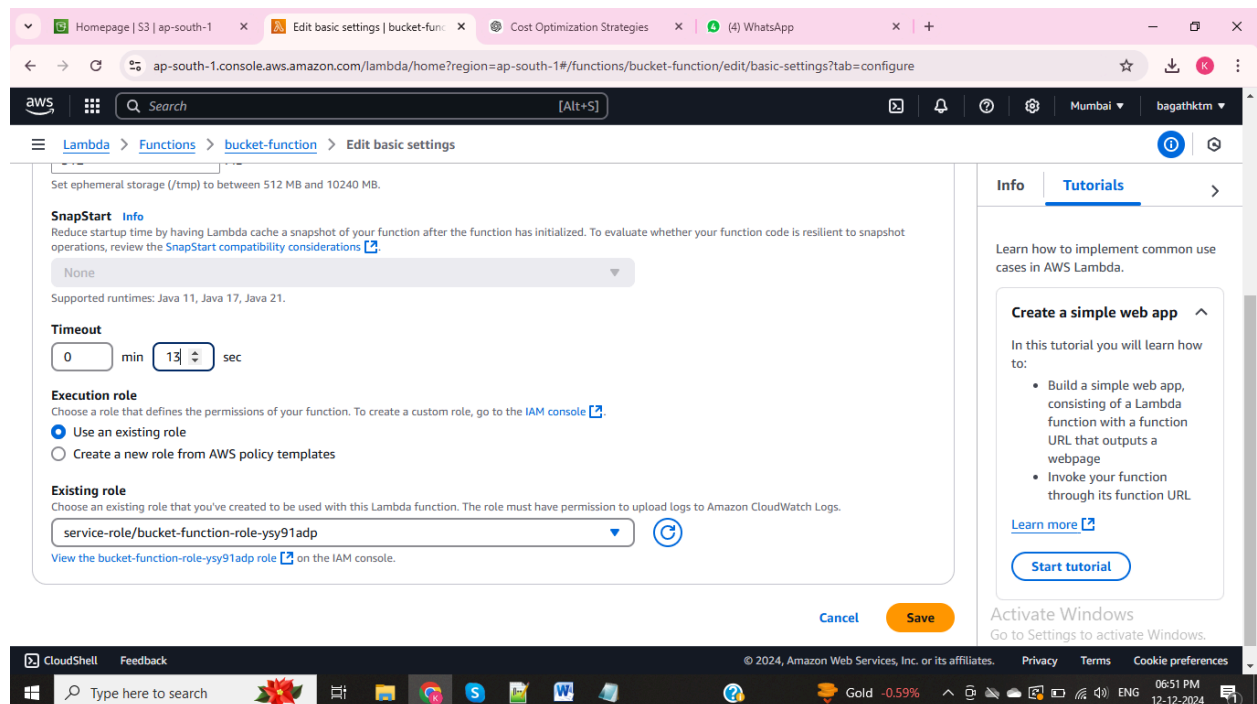
Go to Lambda -- Created a Lambda function as “Bucket-Function”



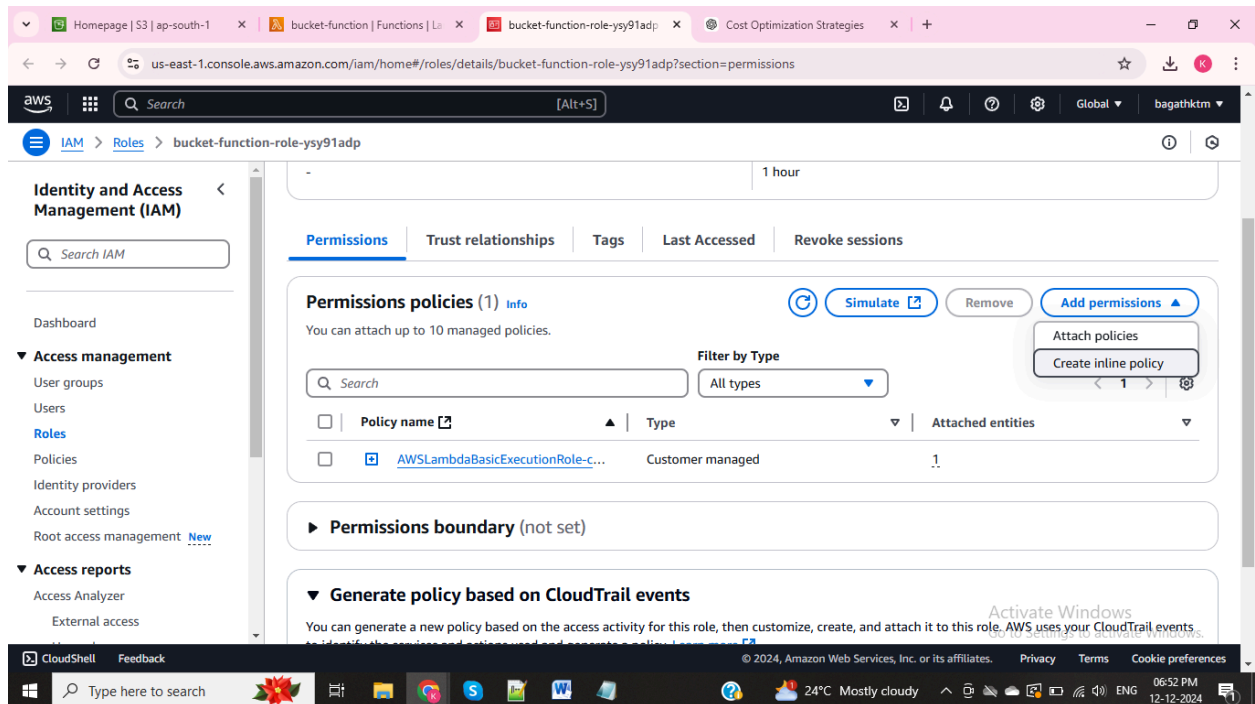
Create a python code for delete an empty bucket in S3 and deploy that code successfully



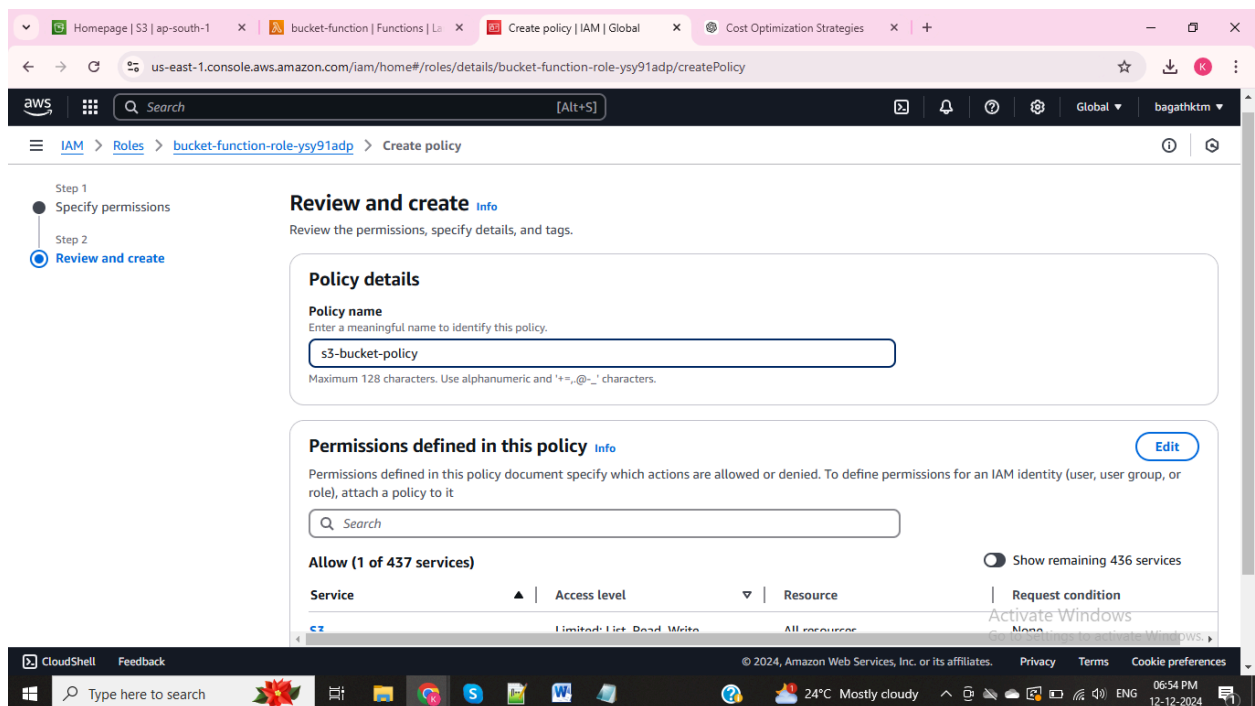
For code succeeded edited the Timeout seconds



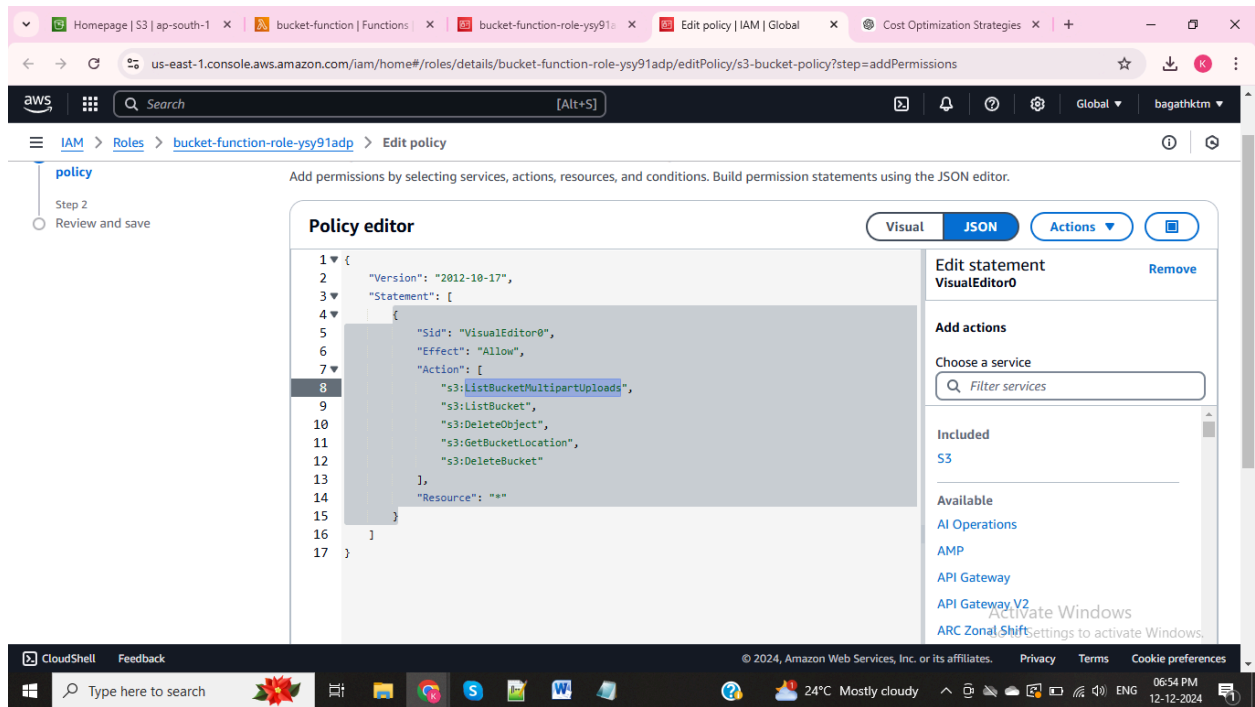
## Created inline policy



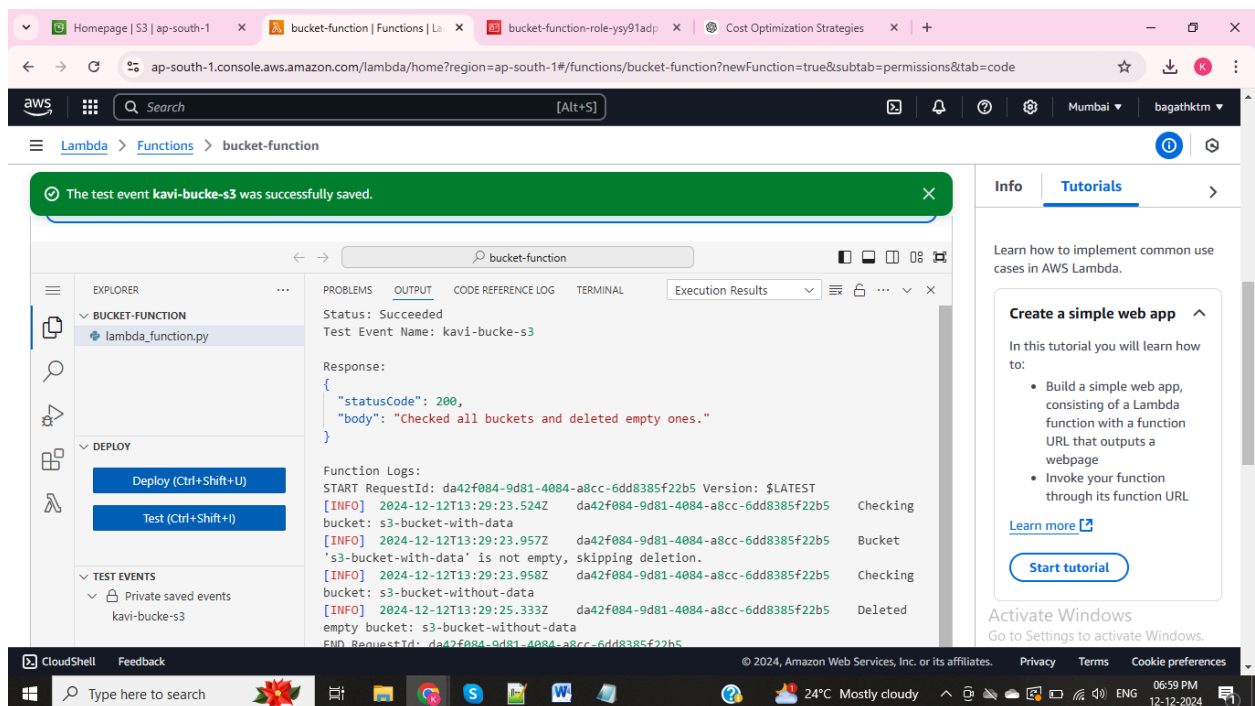
## Policy created with required permissions



## Add permissions to look into the S3 bucket and access them



## Code tested and the status is succeeded



After code success the empty bucket in S3 is deleted automatically

The screenshot shows the AWS S3 console interface. At the top, there's a navigation bar with the AWS logo and a search bar. Below it, a header section displays an 'Account snapshot' and a 'View Storage Lens dashboard' button. The main content area is titled 'General purpose buckets (1)' and includes a search bar and a table of buckets. The table has columns for Name, AWS Region, IAM Access Analyzer, and Creation date. A single bucket is listed: 's3-bucket-with-data' in the 'Asia Pacific (Mumbai) ap-south-1' region, created on 'December 12, 2024, 11:53:07 (UTC+05:30)'. Action buttons like 'Copy ARN', 'Empty', 'Delete', and 'Create bucket' are visible. The bottom of the image shows a Windows taskbar with various application icons and system information.

| Name                                | AWS Region                       | IAM Access Analyzer                          | Creation date                           |
|-------------------------------------|----------------------------------|--|---|
| <a href="#">s3-bucket-with-data</a> | Asia Pacific (Mumbai) ap-south-1 | <a href="#">View analyzer for ap-south-1</a> | December 12, 2024, 11:53:07 (UTC+05:30) |

Cost Optimisation --Created an EC2 instance

The screenshot displays the AWS EC2 console. The left sidebar contains a navigation menu with options like 'Dashboard', 'EC2 Global View', 'Events', 'Instances', 'Instance Types', 'Launch Templates', 'Spot Requests', 'Savings Plans', 'Reserved Instances', 'Dedicated Hosts', 'Capacity Reservations', 'Images', 'AMI Catalog', and 'Elastic Block Store'. The main area is titled 'Instances (1)' and shows a table with columns for Name, Instance ID, Instance state, Instance type, Status check, Alarm status, and Availability. One instance is listed: 'cost optimisati...' with ID 'i-034272876d4295c64', state 'Running', type 't2.micro', and availability 'ap-south-1f'. Below the table, there's a 'Select an instance' section. The bottom of the image shows a Windows taskbar with various application icons and system information.

| Name               | Instance ID         | Instance state | Instance type | Status check | Alarm status                  | Availability |
|--------------------|---------------------|----------------|---------------|--------------|-------------------------------|--------------|
| cost optimisati... | i-034272876d4295c64 | Running        | t2.micro      | Initializing | <a href="#">View alarms +</a> | ap-south-1f  |

## Created snapshot for running instance

**Create snapshot** [Info](#)

Create a point-in-time snapshot of an EBS volume and use it as a baseline for new volumes or for data backup. You can create snapshots from an individual volume, or you can create multi-volume snapshots from all of the volumes attached to an instance.

**Source**

**Resource type** [Info](#)

☒ **Volume**  
Create a snapshot from a specific volume.

☐ **Instance**  
Create multi-volume snapshots from an instance.

**Volume ID**  
The volume from which to create the snapshot.

vol-03f0298440f5b8d61  
ap-south-1b

**Snapshot details**

**Description**  
Add a description for your snapshot.

cost optimisation-snapshot

Activate Windows  
Go to Settings to activate Windows.

CloudShell Feedback

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

Type here to search

Gold +0.62%

11:03 PM  
11-12-2024

## Snapshot is created successfully

**Snapshots (1/1)** [Info](#)

Owned by me

| <input checked="" type="checkbox"/> | Name               | Snapshot ID            | Volume size | Description                | Storage tier | Snapshot status |
|-------------------------------------|--------------------|------------------------|-------------|----------------------------|--------------|-----------------|
| <input checked="" type="checkbox"/> | cost optimisati... | snap-057b02265a17235f5 | 8 GiB       | cost optimisation-snapshot | Standard     | Completed       |

**Snapshot ID: snap-057b02265a17235f5 (cost optimisation snapshot)**

| Details   | Snapshot settings                   | Storage tier                        | Tags  |
|---|-------------------------------------|-------------------------------------|---|
| <b>Snapshot ID</b><br>snap-057b02265a17235f5 (cost optimisation snapshot) | <b>Progress</b><br>Available (100%) | <b>Snapshot status</b><br>Completed | <b>Owner</b><br>010928208944  |
| <b>Started</b><br>Wed Dec 11 2024 23:03:56 GMT+0530 (India Standard Time) | <b>Product codes</b><br>-           | <b>Fast snapshot restore</b><br>-   | <b>Description</b><br>cost optimisation-snapshot<br>Activate Windows<br>Go to Settings to activate Windows. |

CloudShell Feedback

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

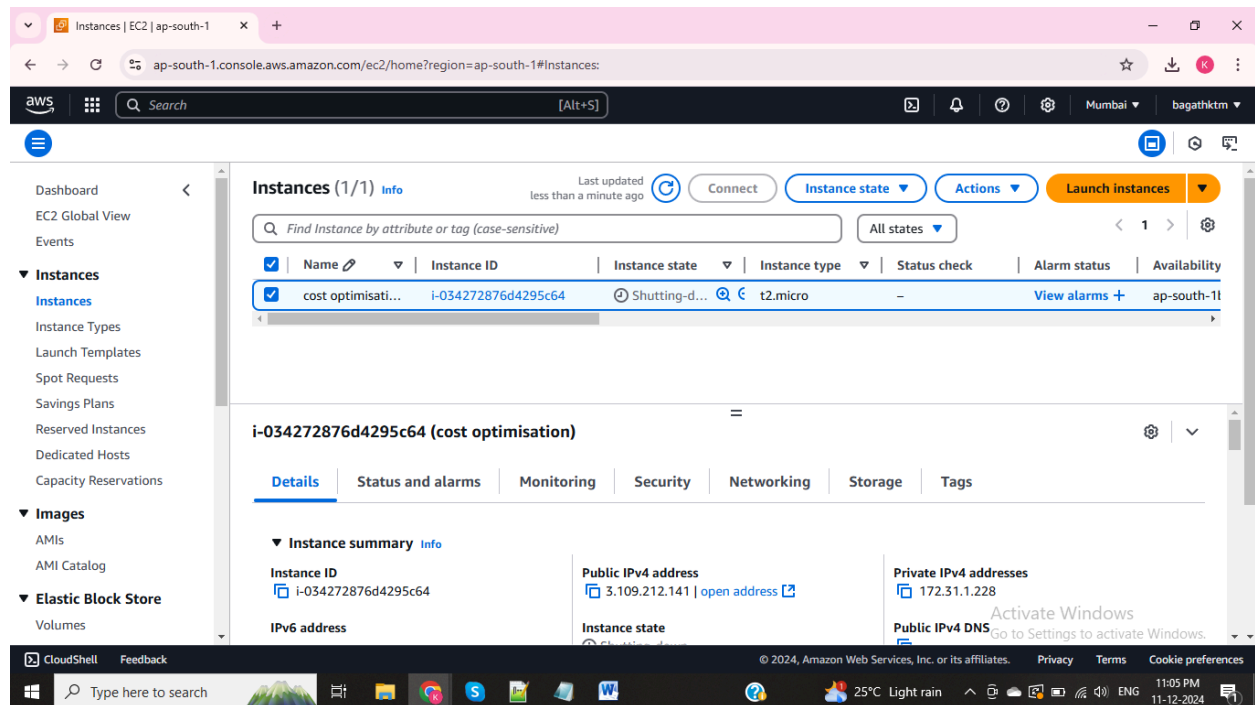
Type here to search

25°C Light rain

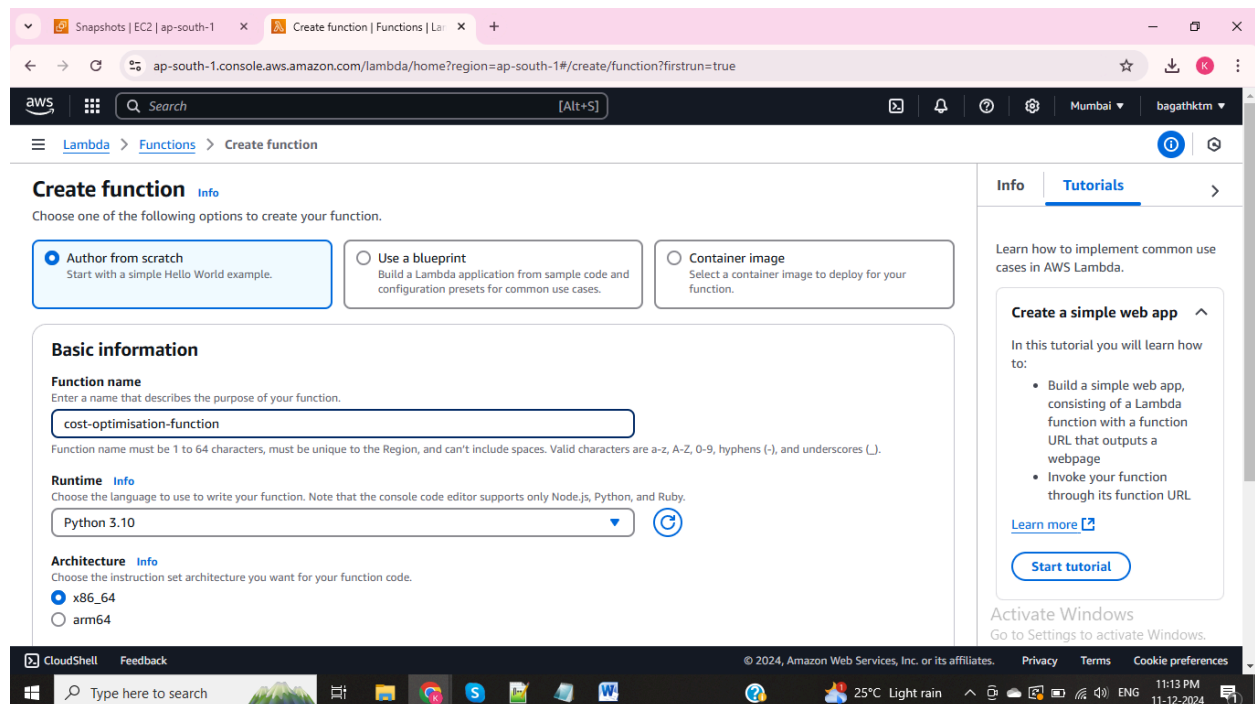
11:05 PM  
11-12-2024



Now terminated the EC2 instance and root volume is deleted automatically but snapshot is there in Elastic Block store

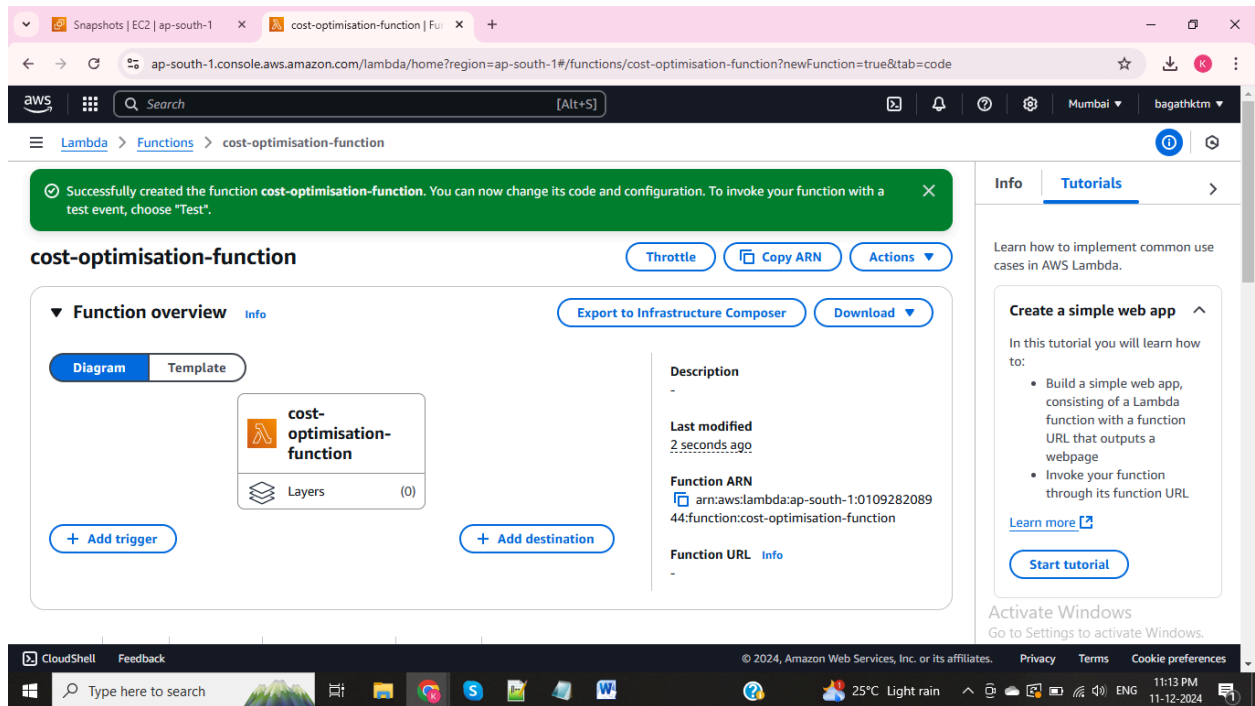


For this unattached snapshot we are using Lambda for deleting the snapshot

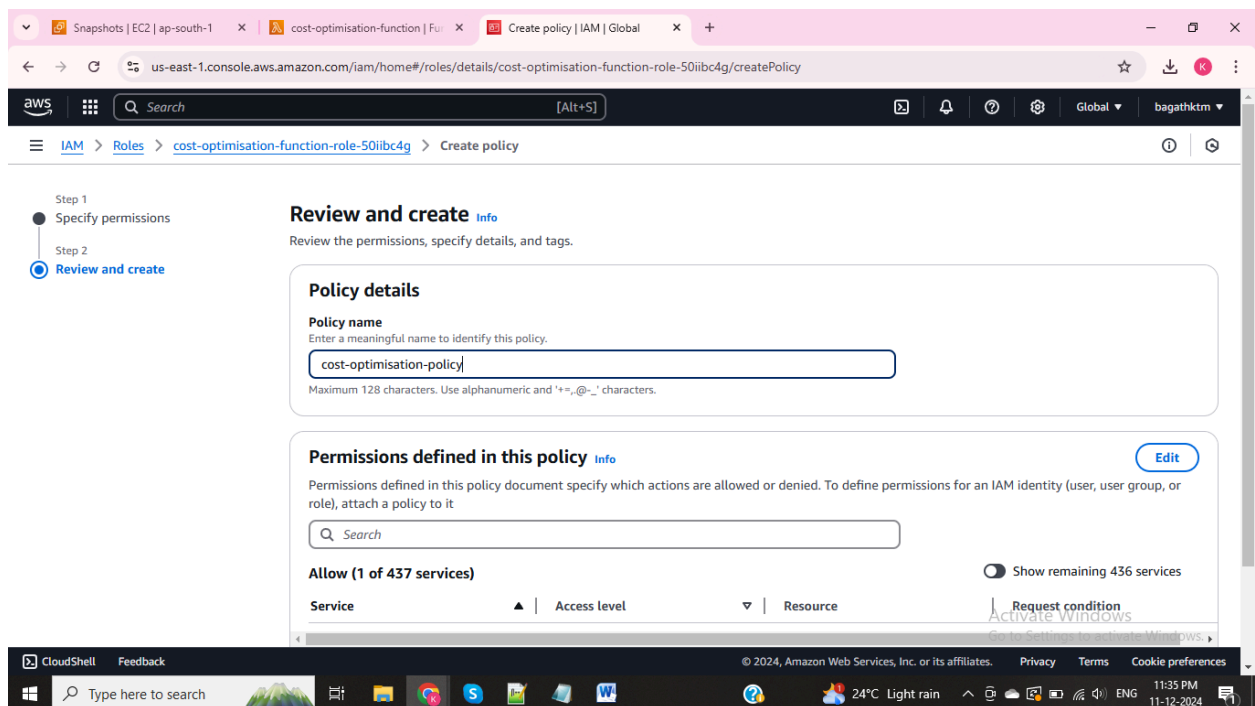


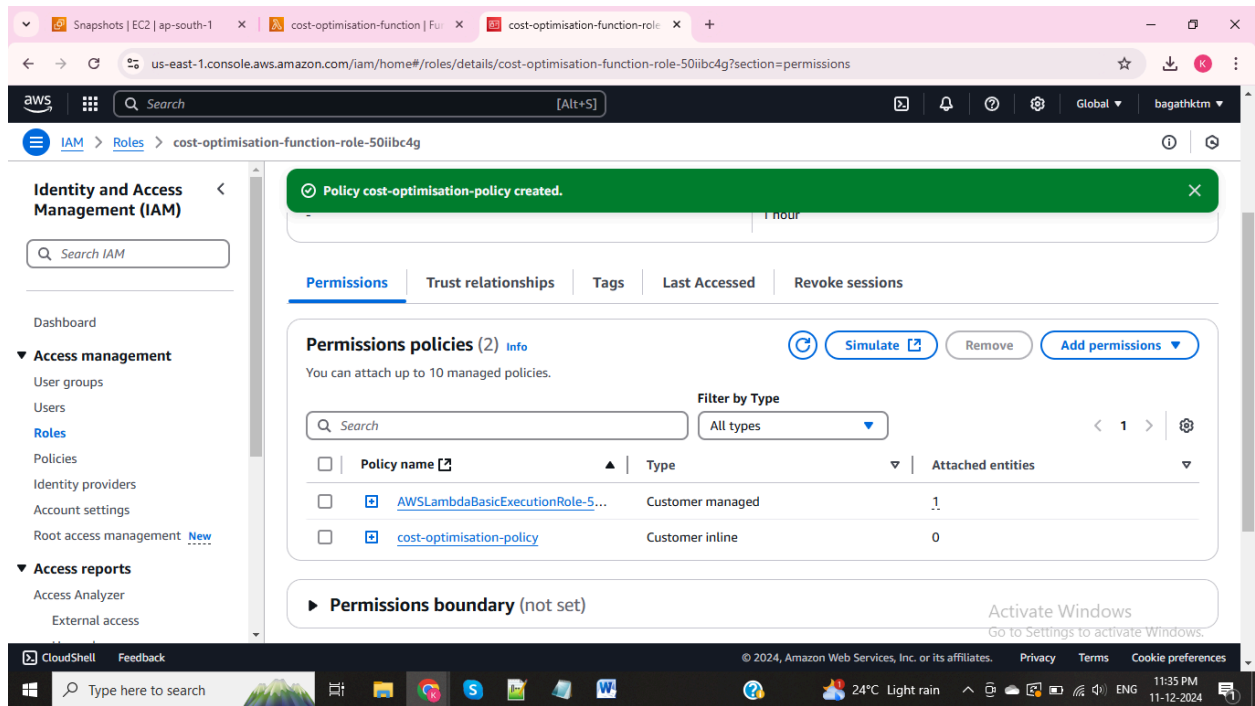


## Lambda Function is created

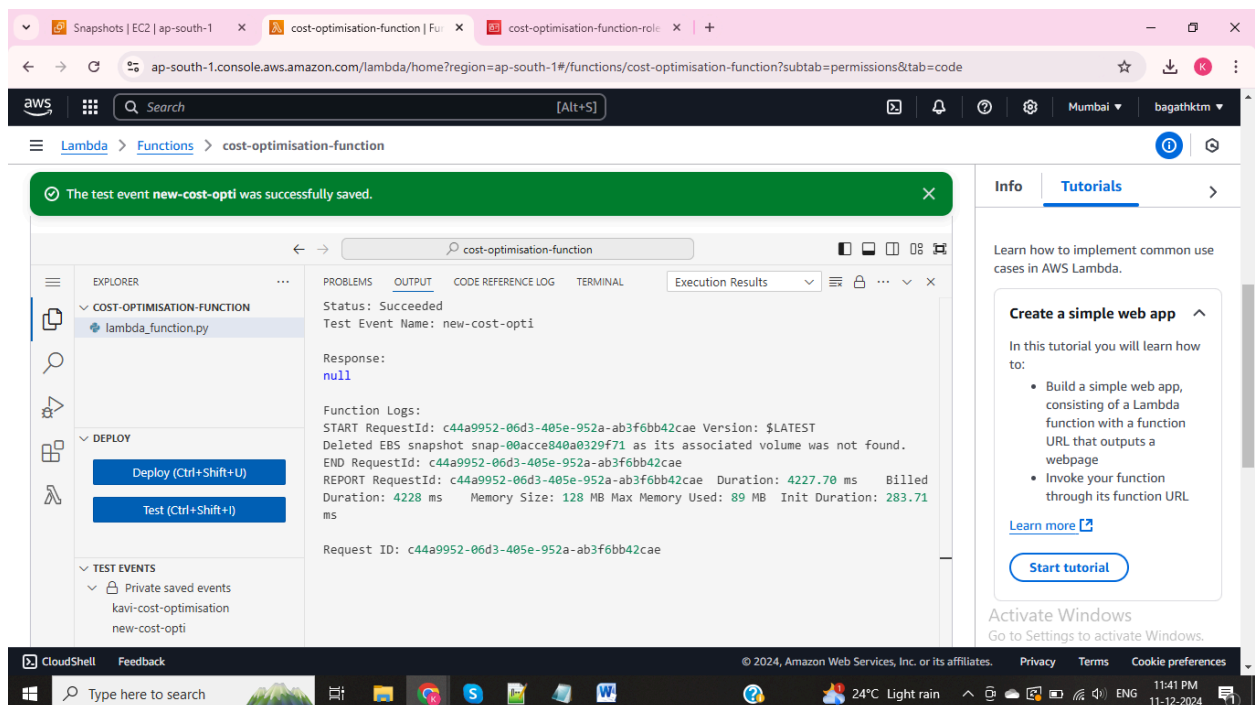


## Policy is created with required permissions





Created python code for deleted an snapshot



With the help of Lambda Function snapshot is deleted and the output is

