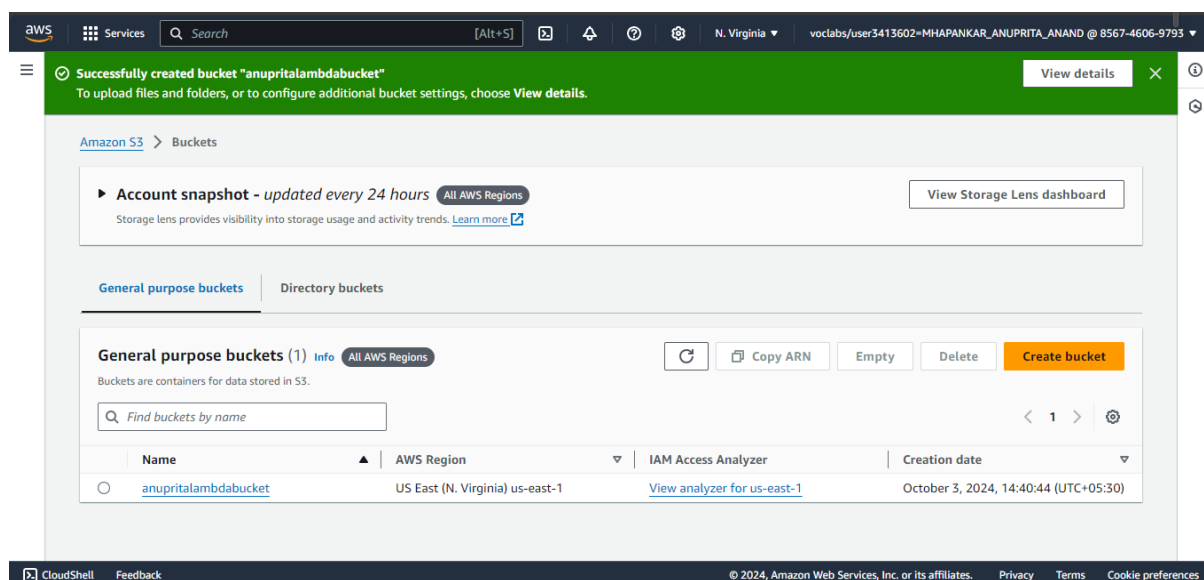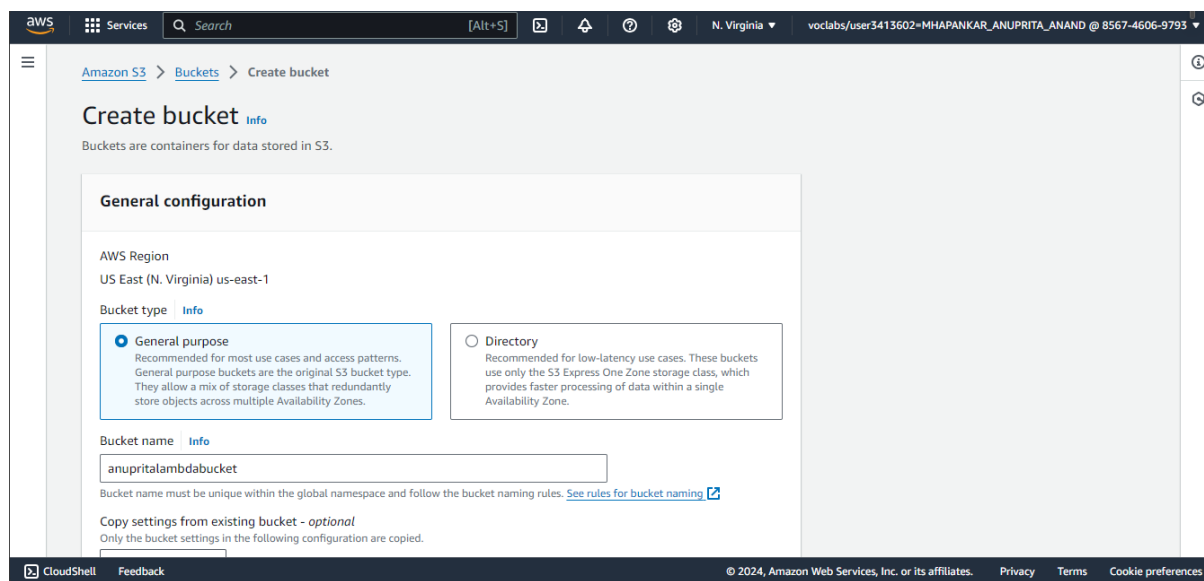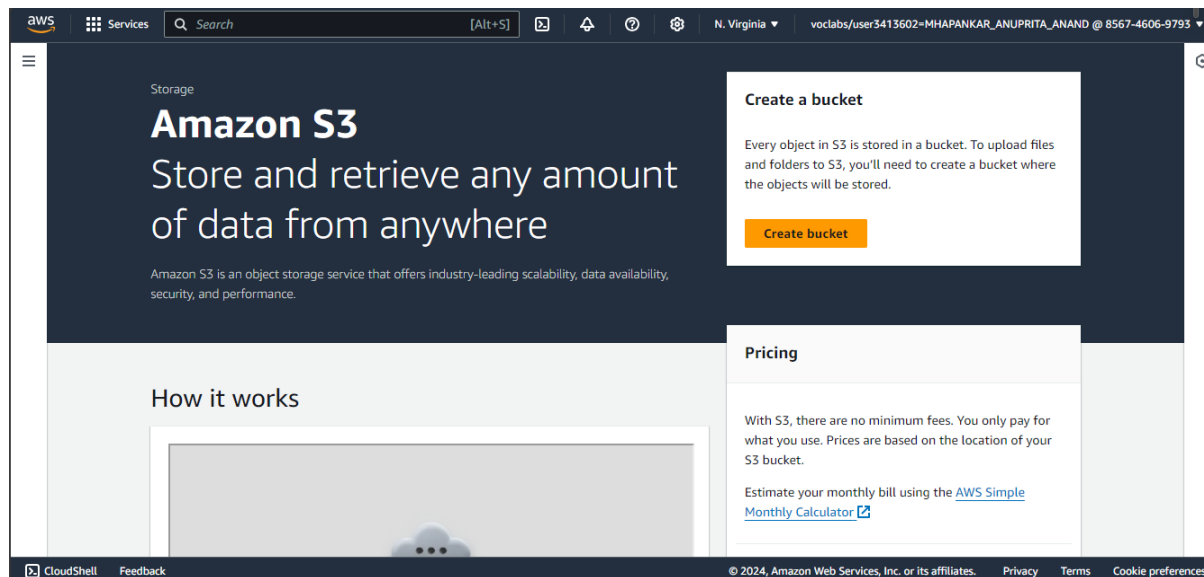**Experiment 12**

Aim: To create a Lambda function which will log "An Image has been added" once you add an object to a specific bucket in S3

Step 1: Create a S3 bucket that will store the objects and will act as the trigger source for the Lambda function.

Step 2: Now, create a Lambda function using AWS Lambda's console and choose the runtime environment as Python.

Step 3: Add the following code to set up the trigger.

Step 4: Link the S3 bucket to the Lambda function by setting up a trigger.

Lambda > Add triggers

Add trigger

Trigger configuration   Info

S3
aws   asynchronous   storage

Bucket
Choose or enter the ARN of an S3 bucket that serves as the event source. The bucket must be in the same region as the function.

🔍 s3/anupritalambdabucket

Bucket region: us-east-1

Event types
Select the events that you want to have trigger the Lambda function. You can optionally set up a prefix or suffix for an event. However, for each bucket, individual events cannot have multiple configurations with overlapping prefixes or suffixes that could match the same object key.

All object create events ✕

Prefix - *optional*

All object create events ✕

Prefix - *optional*
Enter a single optional prefix to limit the notifications to objects with keys that start with matching characters. Any special characters 🔗 must be URL encoded.

e.g. images/

Suffix - *optional*
Enter a single optional suffix to limit the notifications to objects with keys that end with matching characters. Any special characters 🔗 must be URL encoded.

e.g. .jpg

Recursive invocation
If your function writes objects to an S3 bucket, ensure that you are using different S3 buckets for input and output. Writing to the same bucket increases the risk of creating a recursive invocation, which can result in increased Lambda usage and increased costs. Learn more 🔗

☑ I acknowledge that using the same S3 bucket for both input and output is not recommended and that this configuration can cause recursive invocations, increased Lambda usage, and increased costs.

Lambda will add the necessary permissions for AWS S3 to invoke your Lambda function from this trigger. Learn more 🔗 about the Lambda permissions model.

Cancel   **Add**

Lambda > Functions > anupritaimageloader

anupritaimageloader

Throttle   📋 Copy ARN   Actions ▼

✓ The trigger anupritalambdabucket was successfully added to function anupritaimageloader. The function is now receiving events from the trigger.   ✕

▼ Function overview   Info

Export to Application Composer   Download ▼

[Diagram] [Template]

λ **anupritaimageloade r**

≋ Layers   (0)

🪣 **S3**

+ Add trigger

+ Add destination

Description
-

Last modified
11 minutes ago

Function ARN
📋 arn:aws:lambda:us-east-1:856746069793:function:anupritaimageloader

Function URL   Info
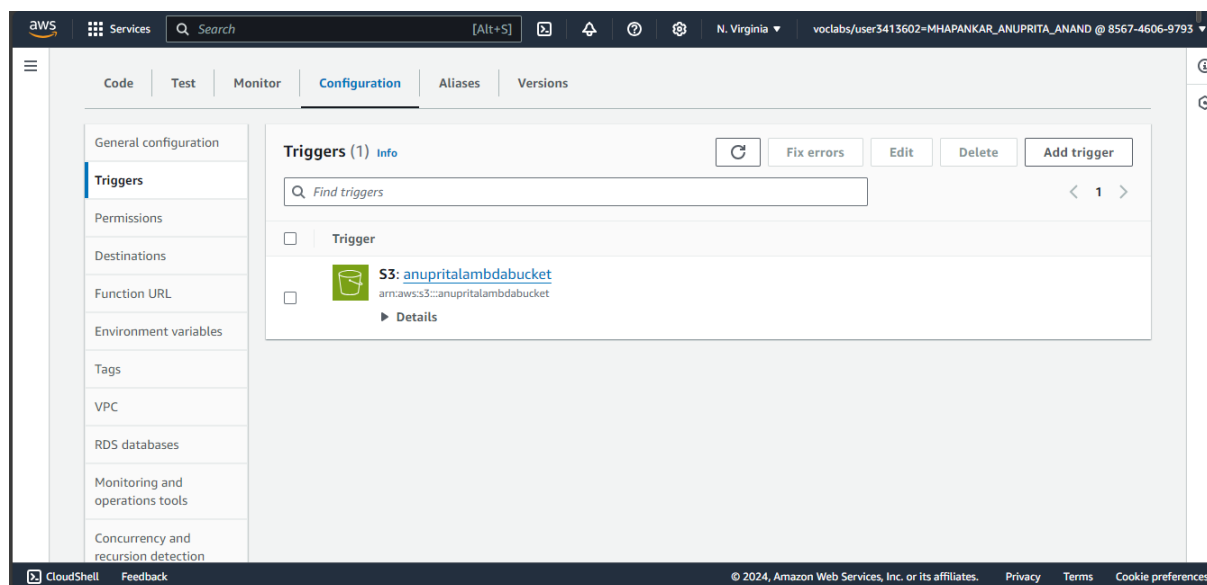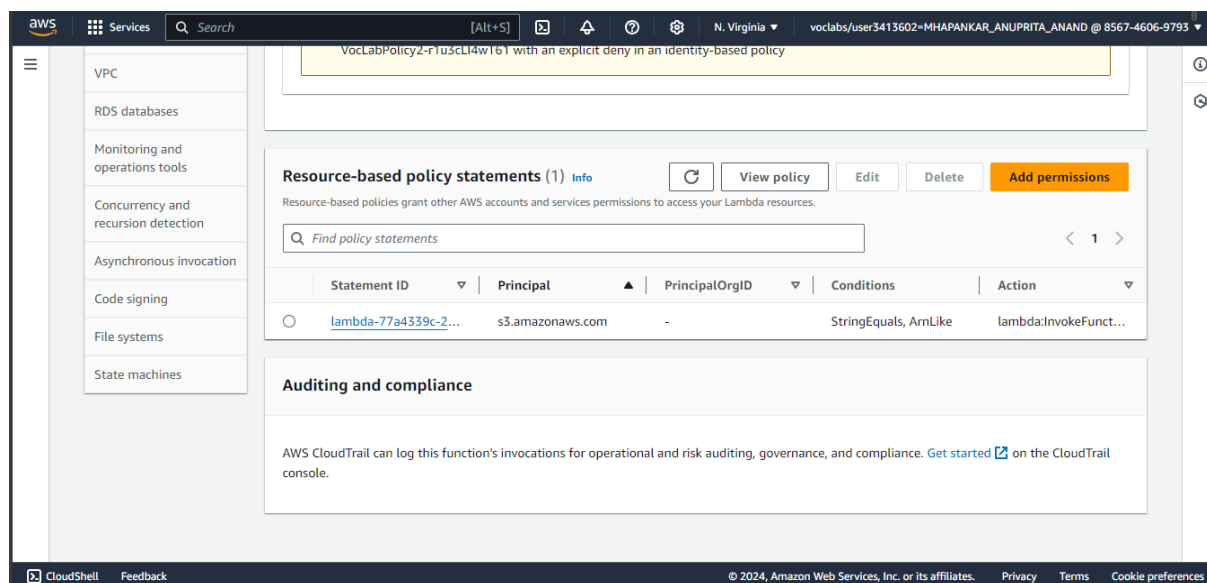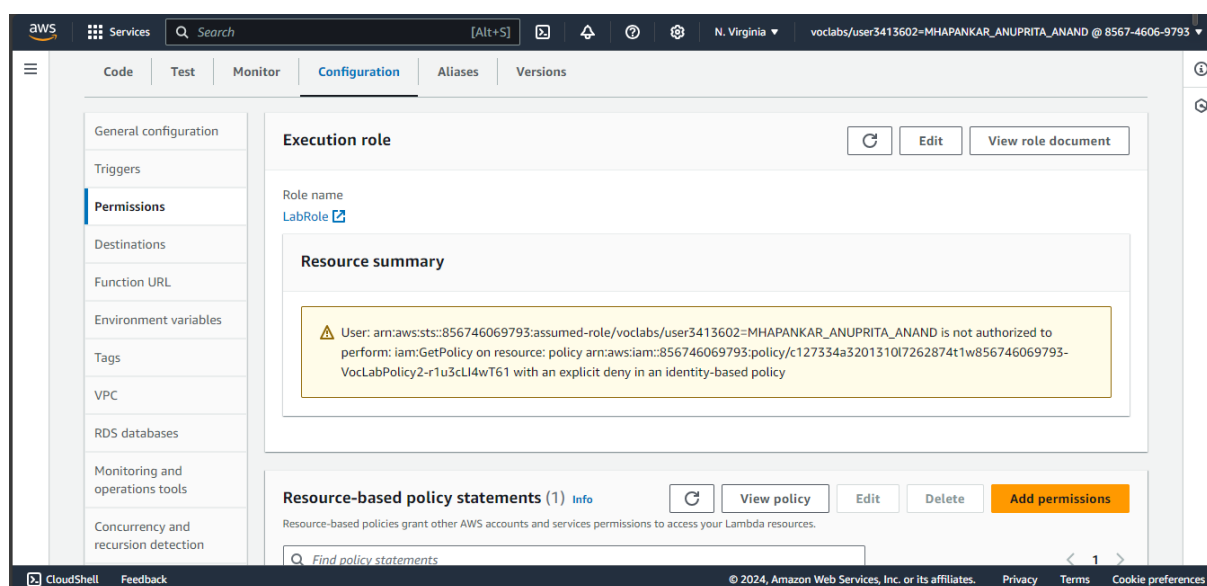-

Step 5: Setup the required permissions.

Step 6: Upload an object (e.g., an image) to the S3 bucket to test the trigger. The Lambda function should execute and log the message "An Image has been added" in AWS CloudWatch Logs.

Amazon S3 ✕

Buckets
Access Grants
Access Points
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

Feature spotlight

Amazon S3 > Buckets > anupritalambdabucket

anupritalambdabucket Info

Objects | Properties | Permissions | Metrics | Management | Access Points

Objects (0) Info

Copy S3 URI | Copy URL | Download | Open ⬈ | Delete | Actions ▾

Create folder | Upload

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. Learn more ⬈

Find objects by prefix

	Name ▲	Type ▽	Last modified ▽	Size ▽	Storage class ▽

No objects
You don't have any objects in this bucket.

Upload

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Amazon S3 > Buckets > anupritalambdabucket > Upload

Upload Info

Add the files and folders you want to upload to S3. To upload a file larger than 160GB, use the AWS CLI, AWS SDK or Amazon S3 REST API. Learn more ⬈

Drag and drop files and folders you want to upload here, or choose **Add files** or **Add folder**.

Files and folders (1 Total, 77.9 KB)

Remove | Add files | Add folder

All files and folders in this table will be uploaded.

Find by name

	Name ▽	Folder ▽	Type
☐	image.png	-	image/png

Destination Info

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---

⊘ **Upload succeeded**
View details below.

Summary

Destination	Succeeded	Failed
s3://anupritalambdabucket	⊘ 1 file, 77.9 KB (100.00%)	☹ 0 files, 0 B (0%)

Files and folders | Configuration

Files and folders (1 Total, 77.9 KB)

Find by name

Name	Folder ▽	Type ▽	Size ▽	Status ▽	Error ▽
image.png ⬈	-	image/png	77.9 KB	⊘ Succeeded	-

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CloudWatch ✕

- Favorites and recents ▶
- Dashboards
- ▶ Alarms ⚠ 0 ⊘ 0 ☺ 0
- ▼ Logs
  - **Log groups**
  - Log Anomalies
  - Live Tail
  - Logs Insights
  - Contributor Insights
- ▶ Metrics
- ▶ X-Ray traces
- ▶ Events
- ▶ Application Signals New
- ▶ Network monitoring

CloudWatch > Log groups > /aws/lambda/anupritaimageloader > 2024/10/03/[$LATEST]0a6fcb5cf1df4b1bb2dc48e6d2640982

Log events

[↻] | Actions ▼ | Start tailing | Create metric filter

You can use the filter bar below to search for and match terms, phrases, or values in your log events. Learn more about filter patterns ↗

| Q Filter events - press enter to search | | 1m | 1h | ▦ | UTC timezone ▼ | Display ▼ | ⚙ |

	Timestamp	Message
▶		No older events at this moment. *Retry*
▶	2024-10-03T09:38:34.628Z	INIT_START Runtime Version: python:3.12.v36 Runtime Version ARN: arn:aws:lambda:us-east-1::runtime:1...
▶	2024-10-03T09:38:34.731Z	START RequestId: 65b9c8c2-fd60-42b1-b8cd-839a9acaba0d Version: $LATEST
▶	2024-10-03T09:38:34.733Z	END RequestId: 65b9c8c2-fd60-42b1-b8cd-839a9acaba0d
▶	2024-10-03T09:38:34.733Z	REPORT RequestId: 65b9c8c2-fd60-42b1-b8cd-839a9acaba0d Duration: 1.70 ms Billed Duration: 2 ms Memor...
		No newer events at this moment. *Auto retry paused.* Resume

CloudShell   Feedback