Rujuta Medhi D15A-28

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

Theory:

AWS Lambda and S3 Integration: AWS Lambda allows you to execute code in response to various events, including those triggered by Amazon S3. When an object is added to an S3 bucket, it can trigger a Lambda function to execute, allowing for event-driven processing without managing servers.
AWS Lambda is a serverless compute service that lets you run code without provisioning or managing servers. It automatically scales your application by running code in response to events. One of the most common use cases for Lambda is integrating it with Amazon S3, a scalable object storage service.
When an object is added to or modified in an S3 bucket, you can configure an S3 event notification to trigger a Lambda function. This event-driven architecture simplifies processing data in real time and reduces the need for manual intervention.

Key Benefits

1. Serverless Architecture:
○ No need to manage servers or infrastructure. You focus solely on writing code.
○ AWS handles scaling automatically based on the number of events.

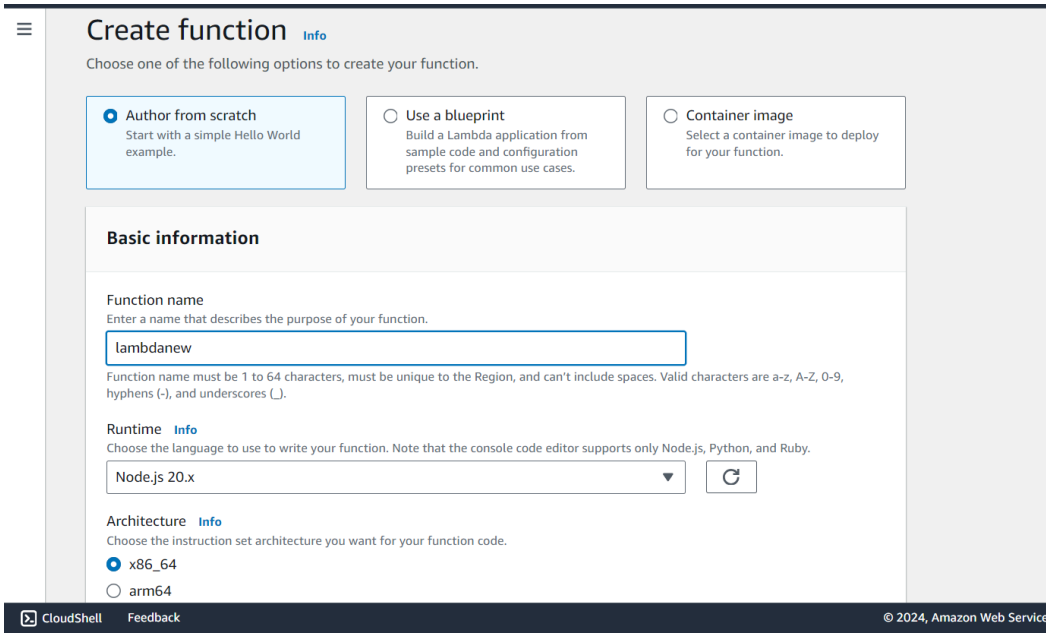
2. Cost Efficiency:
○ Pay only for the compute time you consume. You are charged based on the number of requests and the duration of execution.

3. Real-time Processing:
○ Automatically process files as they are uploaded, allowing for instant reactions to events (e.g., generating thumbnails, analyzing data).

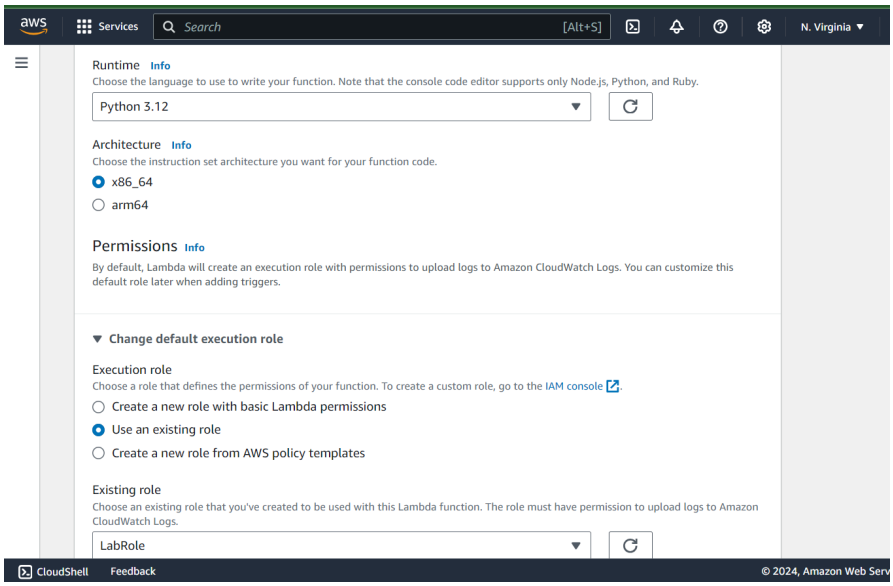
4. Ease of Integration:
○ Lambda integrates easily with other AWS services, enabling seamless workflows and data processing pipelines.

Implementation:

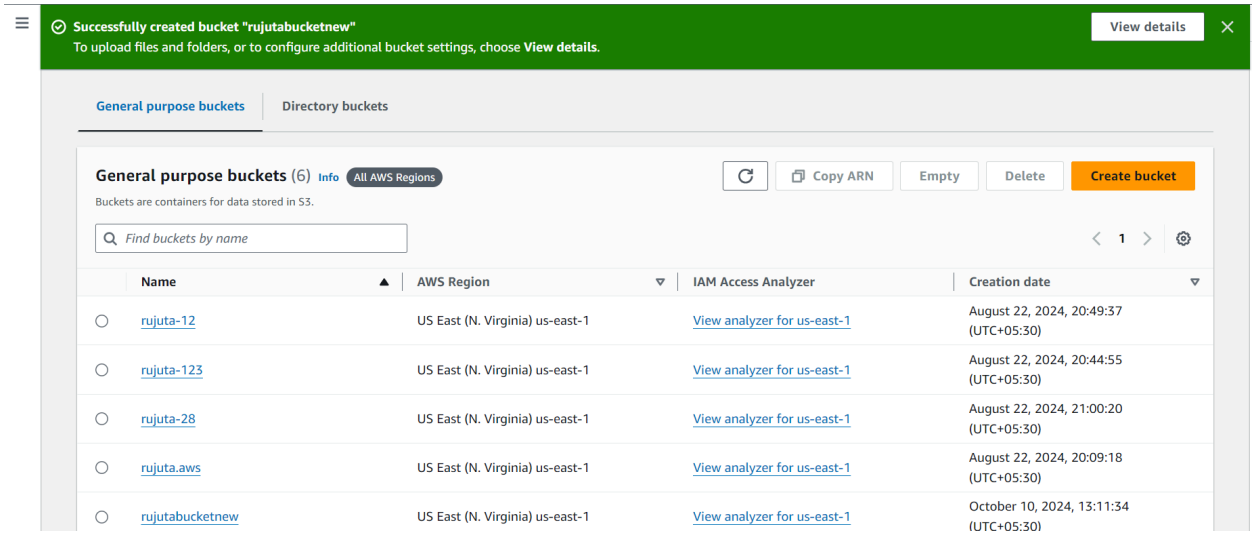
1. Created a lambda function by selecting runtime as python



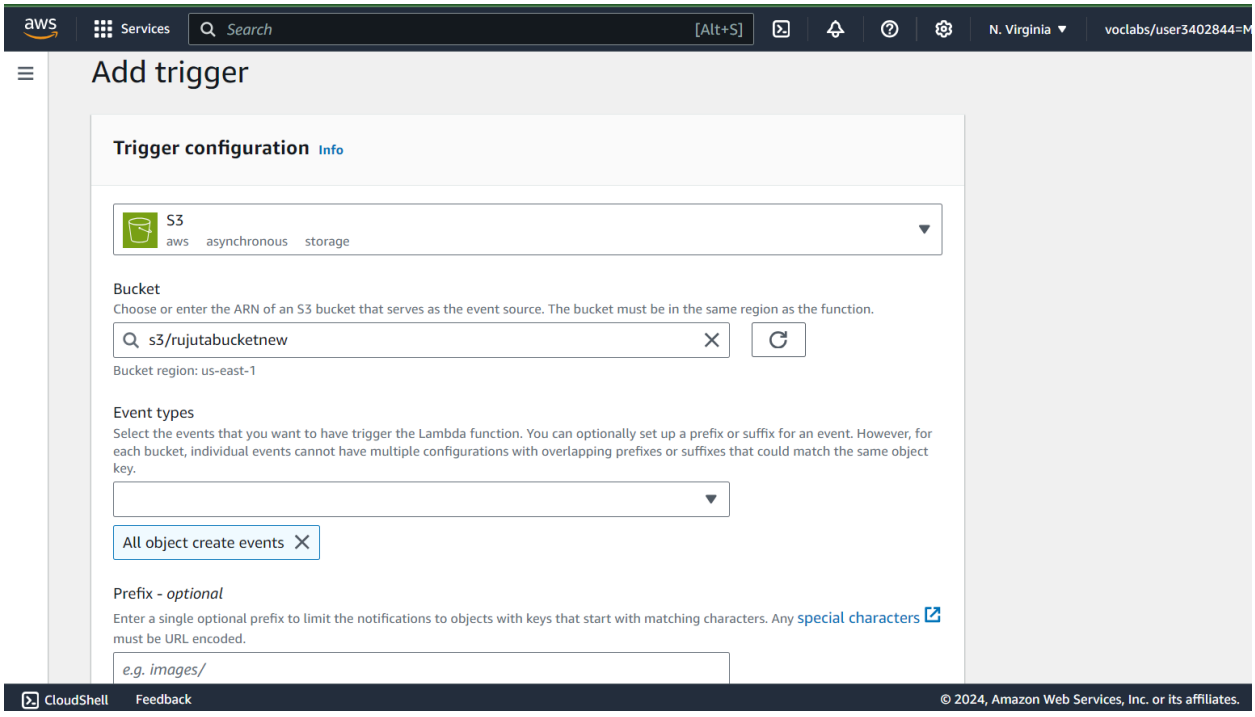
2. Select execution role as lab role

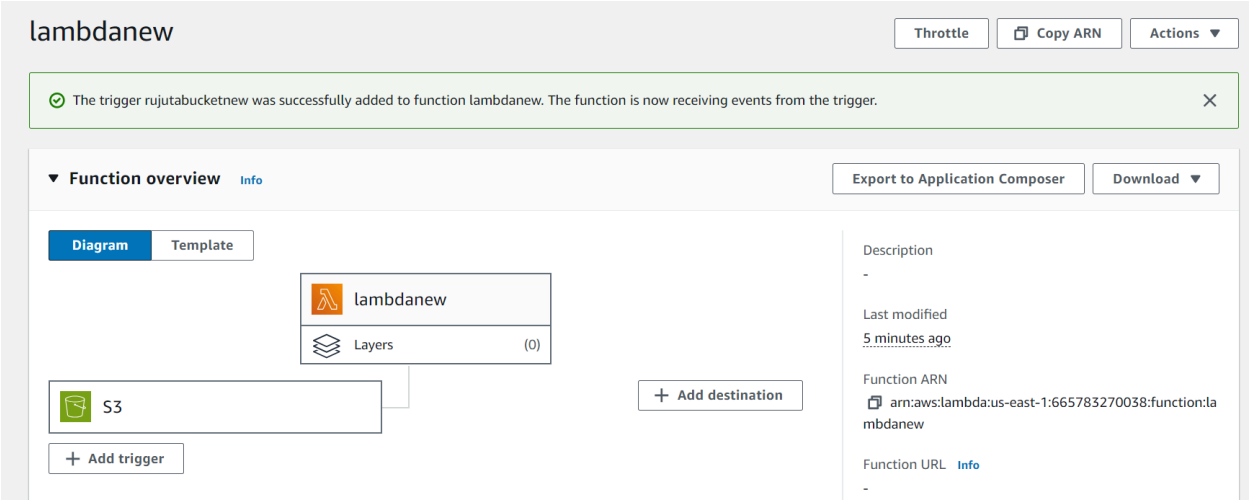


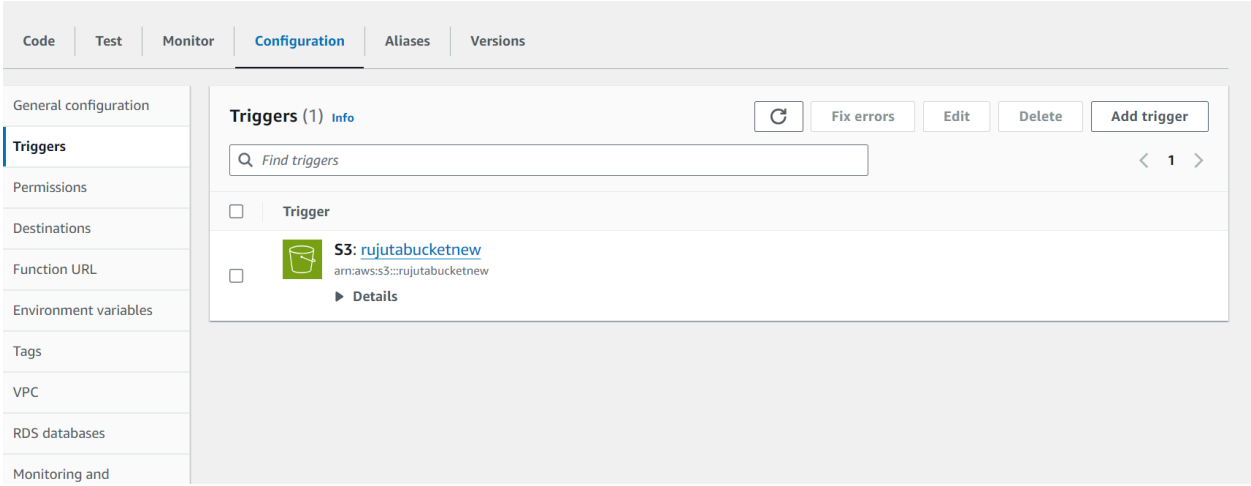
3. Create S3 bucket



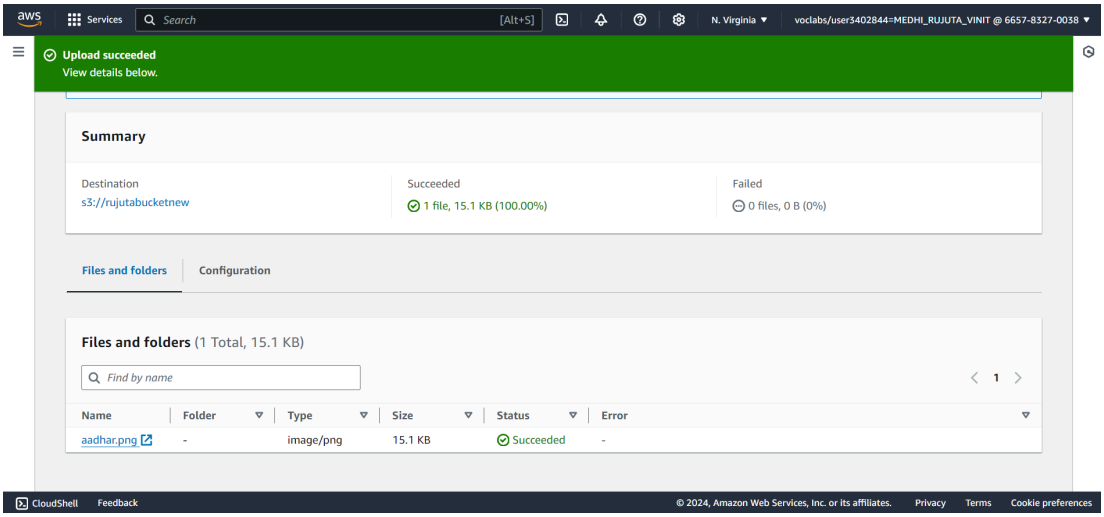
4. Select S3 in triggered configuration







5. Upload image in S3 bucket



6. Check log events in cloud watch