

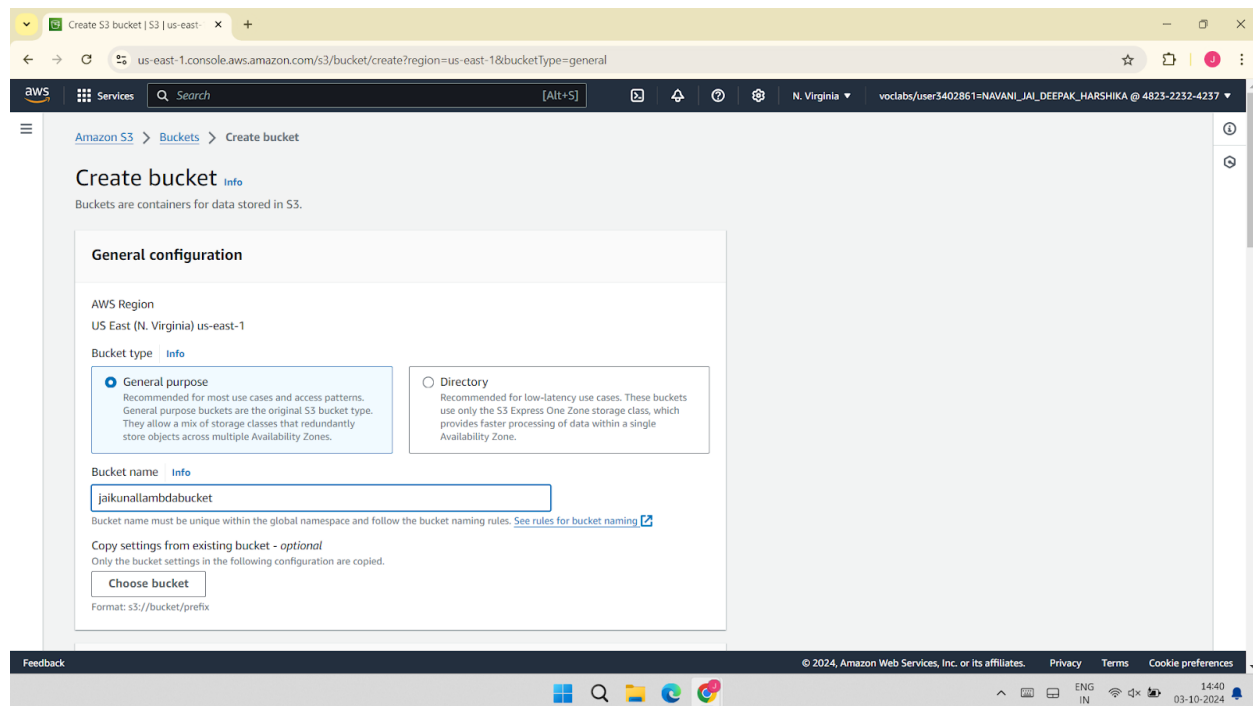
# Advanced DevOps Exp-12

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D15A 44

## Procedure:-

1. Create an S3 bucket of the same location as that of the Lambda function



Upload objects - S3 bucket jaikunallambdabucket

us-east-1.console.aws.amazon.com/s3/upload/jaikunallambdabucket?region=us-east-1&bucketType=general

aws Services Search [Alt+S] N. Virginia voclabs/user3402861=NAVANI\_JAI\_DEEPAK\_HARSHIKA @ 4823-2232-4237

Upload succeeded  
View details below.

Upload: status Close

The information below will no longer be available after you navigate away from this page.

Summary

Destination  
s3://jaikunallambdabucket

Succeeded  
1 file, 781.2 KB (100.00%)

Failed  
0 files, 0 B (0%)

Files and folders

Configuration

Files and folders (1 Total, 781.2 KB)

Find by name

< 1 >

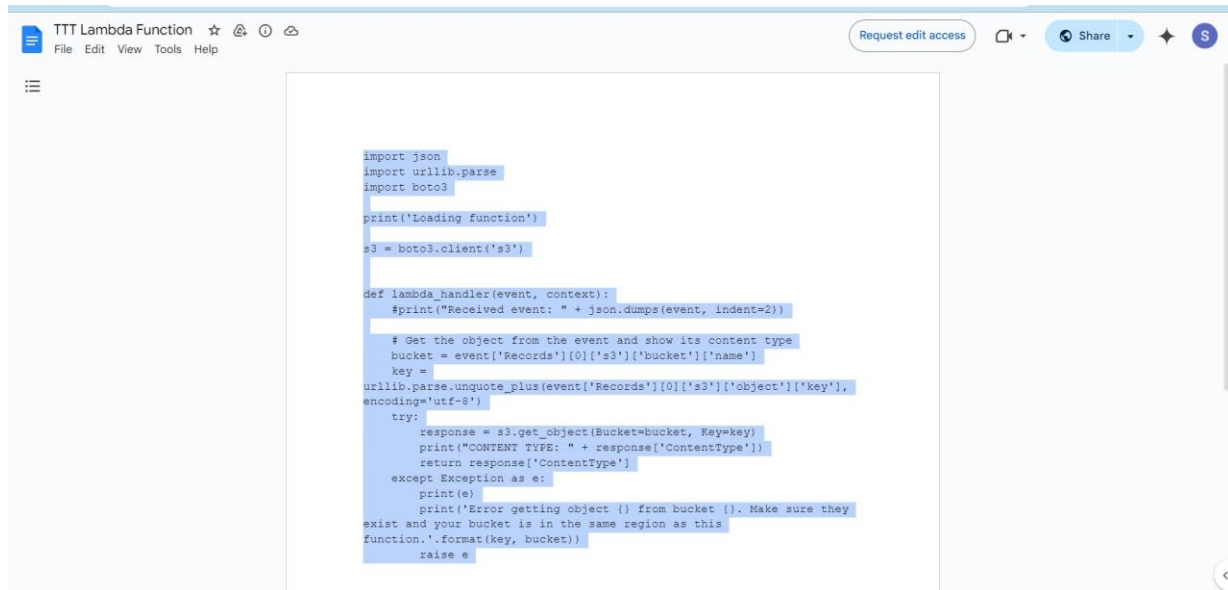
Name	Folder	Type	Size	Status	Error
Screenshot 2...	-	image/png	781.2 KB	Succeeded	-

Feedback

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14:43  
03-10-2024

2. After creating the Lambda function copy a code available on the internet which allows the Lambda function to access the S3 bucket contents.



The screenshot shows the AWS Lambda console editor for a function named "TTT Lambda Function". The code is written in Python and is designed to retrieve an object from an S3 bucket based on an event. The code includes imports for json, urllib.parse, and boto3. It initializes an S3 client and defines a lambda\_handler function. The handler extracts the bucket name and object key from the event, then uses the S3 client to get the object's content type and returns it. Error handling is included for cases where the object is not found or the region is incorrect.

```
import json
import urllib.parse
import boto3

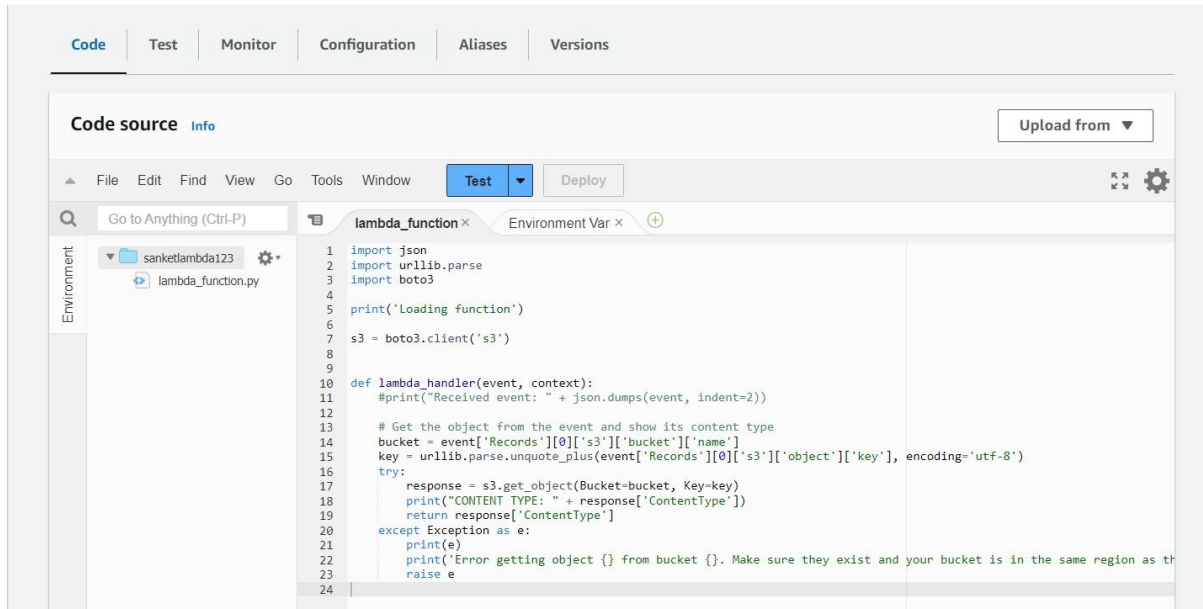
print('Loading function')

s3 = boto3.client('s3')

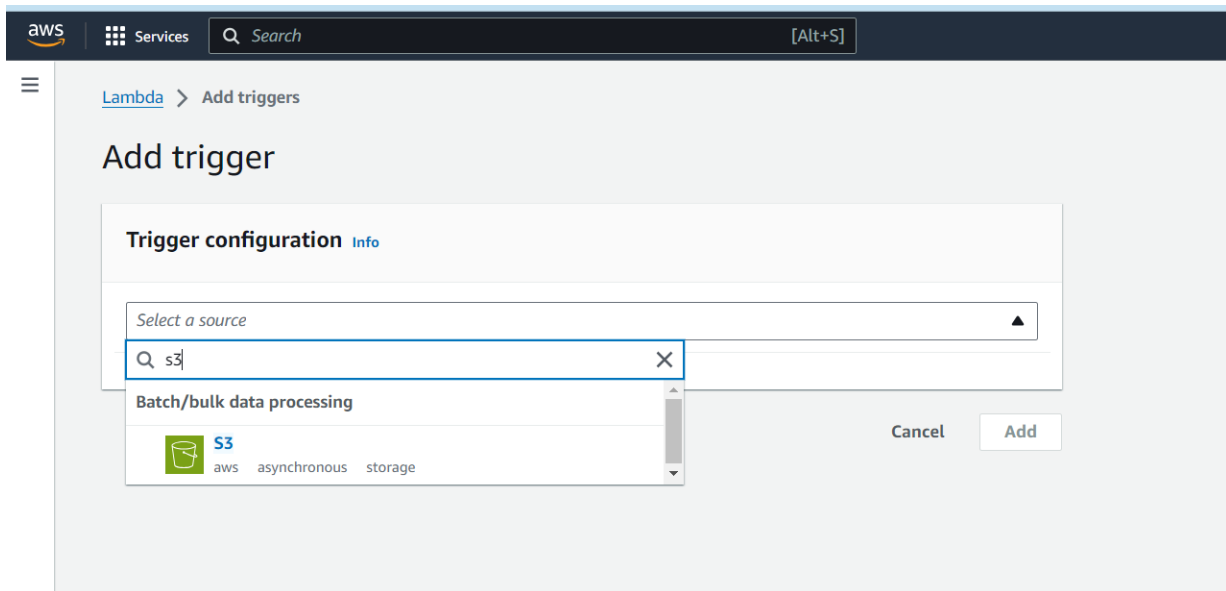
def lambda_handler(event, context):
    #print("Received event: " + json.dumps(event, indent=2))

    # Get the object from the event and show its content type
    bucket = event['Records'][0]['s3']['bucket']['name']
    key = urllib.parse.unquote_plus(event['Records'][0]['s3']['object']['key'], encoding='utf-8')

    try:
        response = s3.get_object(Bucket=bucket, Key=key)
        print("CONTENT TYPE: " + response['ContentType'])
        return response['ContentType']
    except Exception as e:
        print(e)
        print('Error getting object {} from bucket {}. Make sure they exist and your bucket is in the same region as this function.'.format(key, bucket))
        raise e
```



3. Add a trigger to the Lambda function so any changes in the S3 bucket will be first visible to the user.



aws

Services

Search

[Alt+S]

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/jaikunal123

X

↺

Bucket region: eu-north-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 X

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/

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

4. In the event notification of the S3 bucket we can see that it has been connected to the Lambda function .

No data events to display.

Configure in CloudTrail

Event notifications (1)

Send a notification when specific events occur in your bucket. [Learn more](#)

☐

Name

▲

Event types

Filters

Destination type

☐

905f180d-6a25-4474-941b-66671d74e4cd

All object create events

-

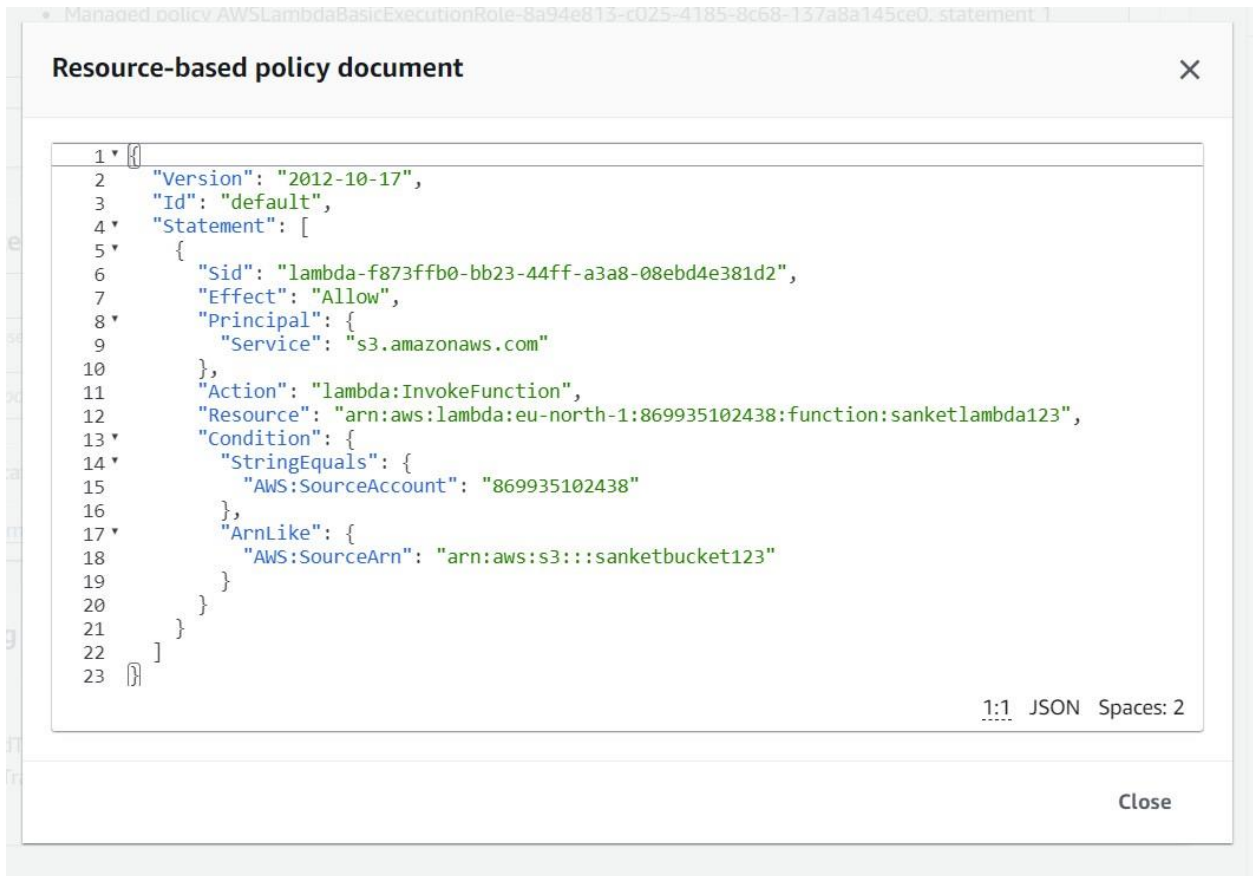
Lambda function

Amazon EventBridge

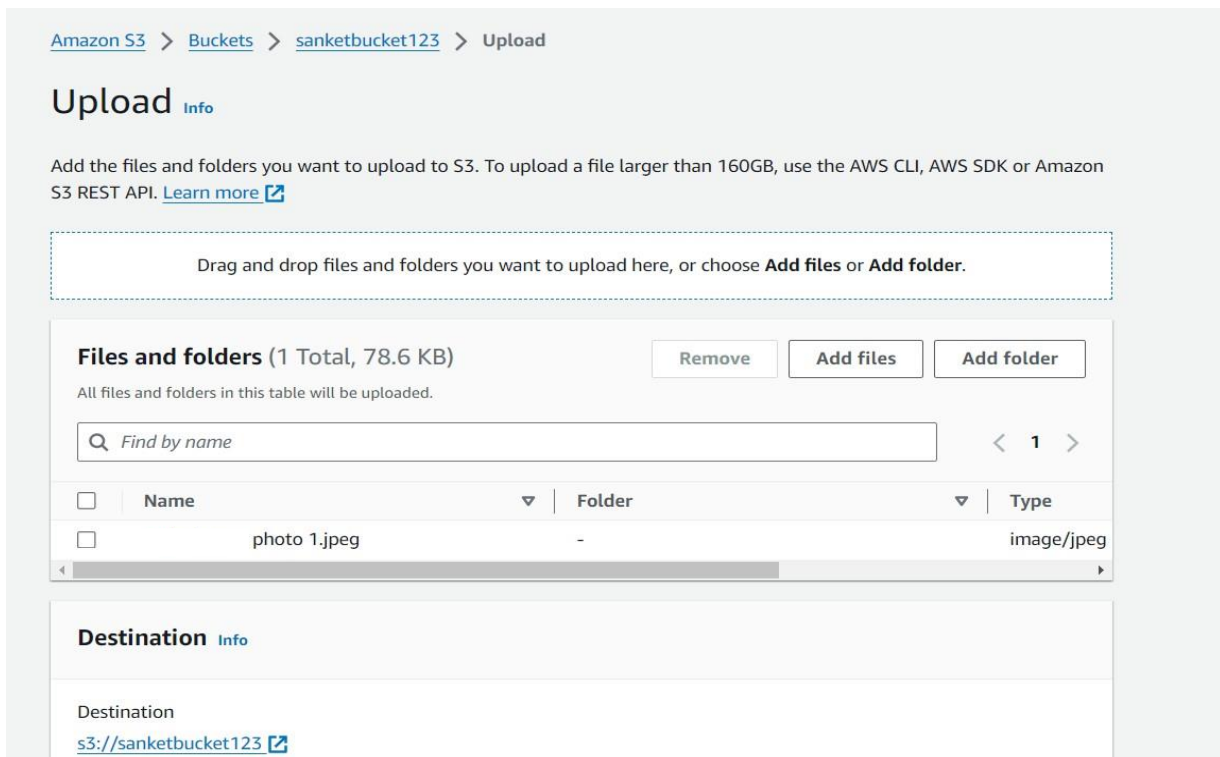
For additional capabilities, use Amazon EventBridge to build event-driven applications at scale using S3 event notifications. [Learn more](#) or [see EventBridge pricing](#)

Send notifications to Amazon EventBridge for all events in this bucket

Off



## 5. Upload a photo to the S3 bucket



☰ Upload succeeded  
View details below.

🔔 The information below will no longer be available after you navigate away from this page.

### Summary

Destination s3://sanketbucket123	Succeeded 🟢 1 file, 78.6 KB (100.00%)	Failed 🔴 0 files, 0 B (0%)
-------------------------------------	--	-------------------------------

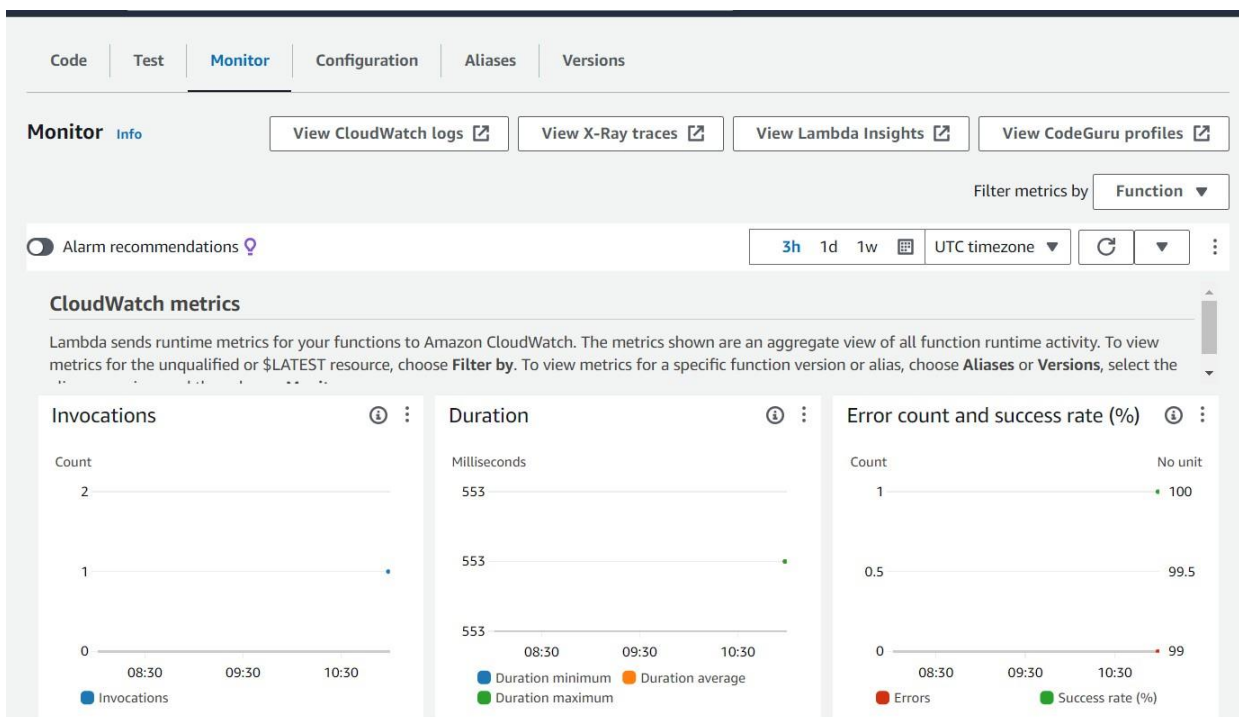
Files and folders Configuration

Files and folders (1 Total, 78.6 KB)

Find by name

Name	Folder	Type	Size	Status	Error
sanket more ...	-	image/jpeg	78.6 KB	🟢 Succeeded	-

6. Now run the function and in the cloud watch logs of AWS you can see the message printed and all the other details of the working of the Lambda function.





us-east-1.console.aws.amazon.com/lambda/home?region=us-east-1#/functions/lambdaJaikunal?tab=configure

aws Services Search [Alt+S] N. Virginia voclabs/User3402861=NAVANI\_JAI\_DEEPAK\_HARSHIKA @ 4823-2232-4237

Lambda > Functions > lambdaJaikunal

## lambdaJaikunal

Throttle Copy ARN Actions

✓ The trigger jaikunallambdabucket was successfully added to function lambdaJaikunal. The function is now receiving events from the trigger.

Function overview Info

Export to Application Composer Download

Diagram Template

lambdaJaikunal

Layers (0)

S3

+ Add destination

+ Add trigger

Description

Last modified 15 minutes ago

Function ARN arn:aws:lambda:us-east-1:482322324237:function:lambdaJaikunal

Function URL info

Code Test Monitor Configuration Aliases Versions

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14:47 03-10-2024

Info Tutorials

Learn how to implement common use cases in AWS Lambda.

### Create a simple web app

In this tutorial you will learn how to:

- Build a simple web app, consisting of a Lambda function with a function URL that outputs a webpage
- Invoke your function through its function URL

Learn more

Start tutorial

CloudWatch

Favorites and recents

Dashboards

Alarms

Logs

Log groups

Log Anomalies

Live Tail

Logs Insights

Contributor Insights

Metrics

X-Ray traces

Events

Application Signals New

Network monitoring

Insights

Settings

CloudWatch > Log groups > /aws/lambda/sanketlambda123 > 2024/10/02/[SLATEST]8ed57b1dccf54ab8b05688935ed748db

### Log events

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](#)

Filter events - press enter to search Clear 1m 30m 1h 12h Custom UTC timezone Display

Timestamp	Message
	No older events at this moment. <a href="#">Retry</a>
2024-10-02T10:59:36.409Z	INIT_START Runtime Version: python:3.12.v36 Runtime Version ARN: arn:aws:lambda:eu-north-1::runtime:188d9ca2e2714ff5637bd2bb...
2024-10-02T10:59:36.801Z	Loading function
2024-10-02T10:59:37.172Z	START RequestId: df929631-f73a-46eb-8a07-56f2f4a810c8 Version: \$LATEST
2024-10-02T10:59:37.718Z	CONTENT TYPE: image/jpeg
2024-10-02T10:59:37.725Z	END RequestId: df929631-f73a-46eb-8a07-56f2f4a810c8
2024-10-02T10:59:37.725Z	REPORT RequestId: df929631-f73a-46eb-8a07-56f2f4a810c8 Duration: 552.91 ms Billed Duration: 553 ms Memory Size: 128 MB Max M...
	No newer events at this moment. Auto retry paused. <a href="#">Resume</a>