TASK - 3

Name : Ponvaishnavi MR   **Location :** Chennai

File processing system :
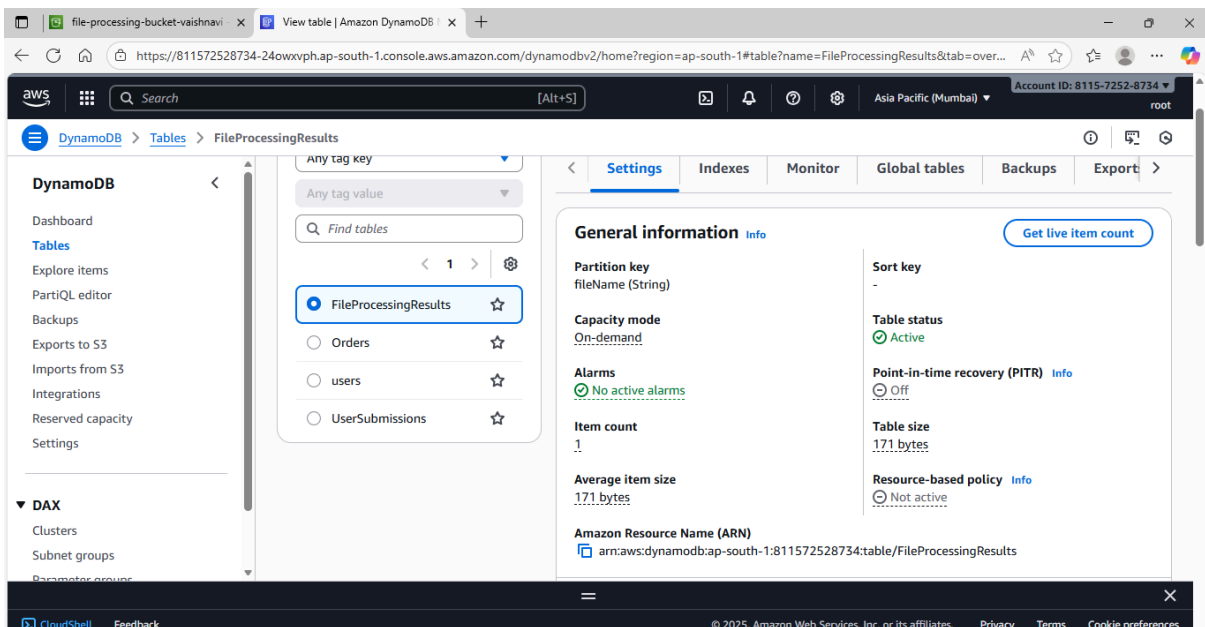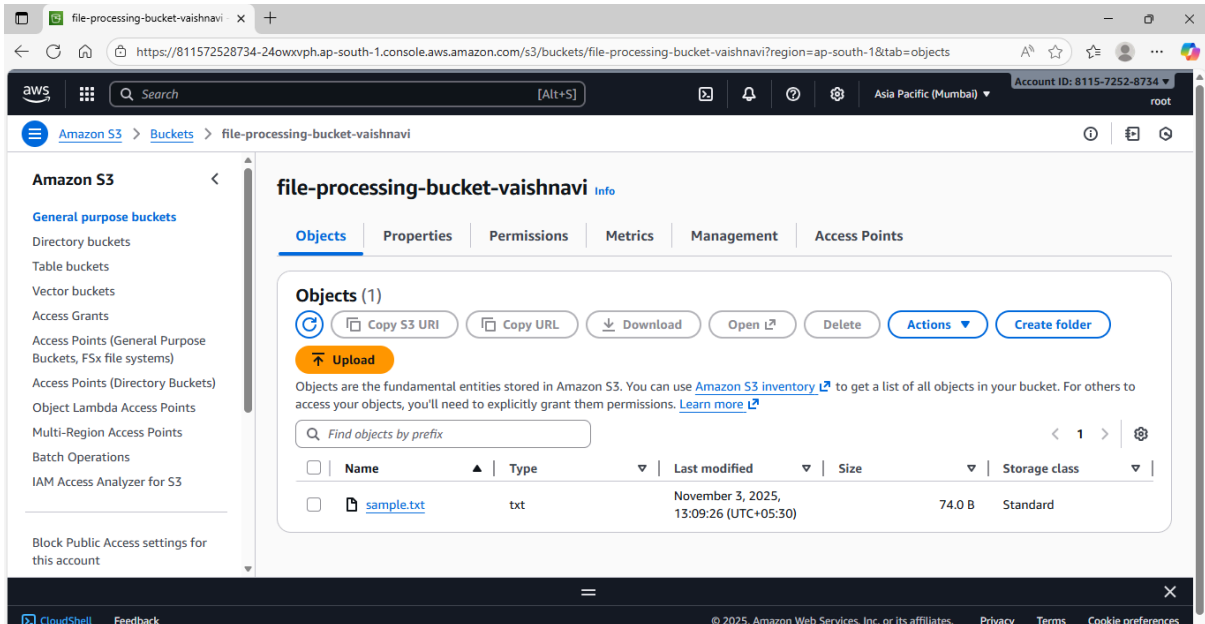
aws | Search [Alt+S] | Asia Pacific (Mumbai) ▼

Lambda > Functions > imageProcessorFunction

imageProcessorFunction

Throttle | Copy ARN | Actions ▼

▼ Function overview Info

Export to Infrastructure Composer | Download ▼

Diagram | Template

imageProcessorFunction

Layers (0)

S3

+ Add trigger

+ Add destination

Description
-

Last modified
2 days ago

Function ARN
arn:aws:lambda:ap-south-1:811572528734:function:imageProcessorFunction

Function URL Info
-

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

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Start tutorial

Code | Test | Monitor | Configuration | Aliases | Versions

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Lambda > Functions > imageProcessorFunction

EXPLORER

▼ IMAGEPROCESSORFUNCTION
  ⊕ lambda_function.py

▼ DEPLOY

Deploy (Ctrl+Shift+U)

Test (Ctrl+Shift+I)

▼ TEST EVENTS [NONE SELECTED]
  + Create new test event

▼ ENVIRONMENT VARIABLES

lambda_function.py ×

```python
import os
import json
import logging
from urllib.parse import unquote_plus

import boto3

# ---- Settings for your assignment ----
TARGET_BUCKET = "image-processing-demo-vaish-ap-south-1"  # your bucket
UPLOADS_PREFIX = "uploads/"
THUMBS_PREFIX = "thumbnails/"
ALLOWED_EXTS = {".jpg", ".jpeg", ".png"}

s3 = boto3.client("s3")
logger = logging.getLogger()
logger.setLevel(logging.INFO)


def _is_allowed_image(key: str) -> bool:
    key_lower = key.lower()
    return any(key_lower.endswith(ext) for ext in ALLOWED_EXTS)
```

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IAM > Roles > TextFileProcessor-role-hxrftnc8

Identity and Access Management (IAM)

Search IAM

Dashboard

Access management
User groups
Users
Roles
Policies
Identity providers
Account settings
Root access management

Access reports
Access Analyzer
Resource analysis New
Unused access

Summary

Creation date
November 03, 2025, 12:56 (UTC+05:30)

Last activity
✓ 3 days ago

ARN
arn:aws:iam::811572528734:role/service-role/TextFileProcessor-role-hxrftnc8

Maximum session duration
1 hour

Edit

Permissions | Trust relationships | Tags | Last Accessed | Revoke sessions

Permissions policies (2) Info
You can attach up to 10 managed policies.

Simulate | Remove | Add permissions ▼

Search | Filter by Type: All types ▼ | < 1 >

	Policy name	Type	Attached entities
☐	AWSLambdaBasicExecutionRole-6c10481...	Customer managed	1
☐	LambdaS3DynamoDBAccess	Customer inline	0

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Lambda > Functions > TextFileProcessor

General configuration

Triggers

Permissions

Destinations

Function URL

Environment variables

Tags

VPC

RDS databases

Monitoring and operations tools

Triggers (1) Info

Fix errors | Edit | Delete | Add trigger

Find triggers | < 1 >

	Trigger
☐	**S3: file-processing-bucket-vaishnavi** arn:aws:s3:::file-processing-bucket-vaishnavi ▶ Details

Info | Tutorials | >

Learn how to implement common use cases in AWS Lambda.

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DynamoDB > Explore items

DynamoDB

Dashboard
Tables

Explore items
PartiQL editor
Backups
Exports to S3
Imports from S3
Integrations
Reserved capacity
Settings

▼ DAX
Clusters
Subnet groups
Parameter groups

○ users ☆
○ UserSubmissions ☆

▶ Filters – *optional*

Run   Reset

✓ **Completed** · Items returned: **1** · Items scanned: **1** · Efficiency: **100%** · RCUs consumed: **2** ✕

Table: FileProcessingResults - Items returned (1)

↻   Actions ▼   **Create item**

Scan started on November 06, 2025, 14:25:49

< 1 > ⚙

	fileName *(String)* ▽	charCount ▽	lineCount ▽	preview ▽	proc
☐	sample.txt	68	3	Sample tex...	2025

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CloudWatch > Log groups > /aws/lambda/TextFileProcessor > 2025/11/03/[$LATEST]5ea32a80028a461eae825d3605cdea7e

CloudWatch

Favorites and recents ▶

Dashboards
▶ AI Operations New
▶ Alarms ⚠ 0 ⊘ 0 ⊖ 0
▼ Logs
    Log groups
    Log Anomalies
    Live Tail
    Logs Insights
    Contributor Insights
▶ Metrics New
▶ Application Signals New

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

🔍 Filter events - press enter to search

1m   1h   ▦   UTC timezone ▼

Display ▼

⚙

▶	Timestamp	Message
		No older events at this moment. *Retry*
▶	2025-11-03T07:39:27.123Z	INIT_START Runtime Version: java:17.v57 Runtime Version ARN: arn:aws:lambda:ap-south-1::runtime:910be2af...
▶	2025-11-03T07:39:28.902Z	START RequestId: 55837b57-9d39-4f4f-93c1-47d0f7306601 Version: $LATEST
▶	2025-11-03T07:39:29.167Z	Triggered by S3 object: s3://file-processing-bucket-vaishnavi/sample.txt
▶	2025-11-03T07:39:32.307Z	Saved result to DynamoDB table: FileProcessingResults
▶	2025-11-03T07:39:32.325Z	END RequestId: 55837b57-9d39-4f4f-93c1-47d0f7306601
▶	2025-11-03T07:39:32.325Z	REPORT RequestId: 55837b57-9d39-4f4f-93c1-47d0f7306601 Duration: 3422.16 ms Billed Duration: 5198 ms Mem...
		No newer events at this moment. *Auto retry paused.* Resume

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File Edit Source Refactor Navigate Search Project Run Window Help

Project Explorer × | Servers JUnit

- ArunTheGreat [boot]
- demo [boot]
- DemoSpring
- Encora_Day1-main (in Ecommerce)
- Exampleproject
- FirstProject
- Jdbc
- matrimony-application (in Java assignment) [boot] [devtools]
- mockitodemo [boot]
- myApp [boot]
- RetailProject
- SBAOP [boot]
- Servers
- text-file-processor
  - src/main/java
  - src/test/java
  - JRE System Library [JavaSE-1.8]
  - Maven Dependencies
  - target/generated-sources/annotations
  - target/generated-test-sources/test-annotations
  - src
  - target
  - pom.xml

TextFileProcessorHandler.java ×   text-file-processor/pom.xml

```java
1  package com.example.text_file_processor;
2
3  import com.amazonaws.services.lambda.runtime.Context;
4  import com.amazonaws.services.lambda.runtime.RequestHandler;
5  import com.amazonaws.services.lambda.runtime.LambdaLogger;
6  import com.amazonaws.services.lambda.runtime.events.S3Event;
7
8  import software.amazon.awssdk.core.ResponseInputStream;
9  import software.amazon.awssdk.core.sync.RequestBody;
10 import software.amazon.awssdk.services.s3.S3Client;
11 import software.amazon.awssdk.services.s3.model.GetObjectRequest;
12
13 import software.amazon.awssdk.services.dynamodb.DynamoDbClient;
14 import software.amazon.awssdk.services.dynamodb.model.PutItemRequest;
15 import software.amazon.awssdk.services.dynamodb.model.AttributeValue;
16
17 import java.io.BufferedReader;
18 import java.io.InputStreamReader;
19 import java.nio.charset.StandardCharsets;
20 import java.time.Instant;
21 import java.util.HashMap;
22 import java.util.Map;
23 import java.util.stream.Collectors;
24
25 public class TextFileProcessorHandler implements RequestHandler<S3Event, String> {
26
27     private static final String TABLE_NAME = System.getenv("TABLE_NAME") != null
28             ? System.getenv("TABLE_NAME")
29             : "FileProcessingResults";
30
31     private final S3Client s3 = S3Client.create();
32     private final DynamoDbClient ddb = DynamoDbClient.create();
33
34     @Override
```

Console × | Problems | Progress | Debug Shell

<terminated> text-file-processor (2) [Maven Build] C:\Program Files\Java\jdk-17\bin\javaw.exe (Nov 6, 2025, 2:40:27 PM – 2:40:28 PM elapsed: 0:00:01.693) [pid: 2176]

text-file-processor

File Edit Navigate Search Project Run Design Window Help

Project Explorer × | Servers JUnit

- ArunTheGreat [boot]
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  - target/generated-sources/annotations
  - target/generated-test-sources/test-annotations
  - src
  - target
  - pom.xml

TextFileProcessorHandler.java   text-file-processor/pom.xml ×

```xml
1  <project xmlns="http://maven.apache.org/POM/4.0.0"
2           xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
3           xsi:schemaLocation="http://maven.apache.org/POM/4.0.0
4           http://maven.apache.org/xsd/maven-4.0.0.xsd">
5    <modelVersion>4.0.0</modelVersion>
6
7    <groupId>com.example</groupId>
8    <artifactId>text-file-processor</artifactId>
9    <version>1.0.0</version>
10   <properties>
11     <maven.compiler.source>17</maven.compiler.source>
12     <maven.compiler.target>17</maven.compiler.target>
13     <project.build.sourceEncoding>UTF-8</project.build.sourceEncoding>
14     <aws.sdk.version>2.26.19</aws.sdk.version>
15   </properties>
16
17   <dependencies>
18     <!-- AWS SDK v2 -->
19     <dependency>
20       <groupId>software.amazon.awssdk</groupId>
21       <artifactId>s3</artifactId>
22       <version>${aws.sdk.version}</version>
23     </dependency>
24     <dependency>
25       <groupId>software.amazon.awssdk</groupId>
26       <artifactId>dynamodb</artifactId>
27       <version>${aws.sdk.version}</version>
28     </dependency>
29
30     <!-- Lambda core & events -->
31     <dependency>
32       <groupId>com.amazonaws</groupId>
33       <artifactId>aws-lambda-java-core</artifactId>
```

Overview | Dependencies | Dependency Hierarchy | Effective POM | pom.xml

Console × | Problems | Progress | Debug Shell

<terminated> text-file-processor (2) [Maven Build] C:\Program Files\Java\jdk-17\bin\javaw.exe (Nov 6, 2025, 2:40:27 PM – 2:40:28 PM elapsed: 0:00:01.693) [pid: 2176]

Writable   Insert   2 : 63 : 114