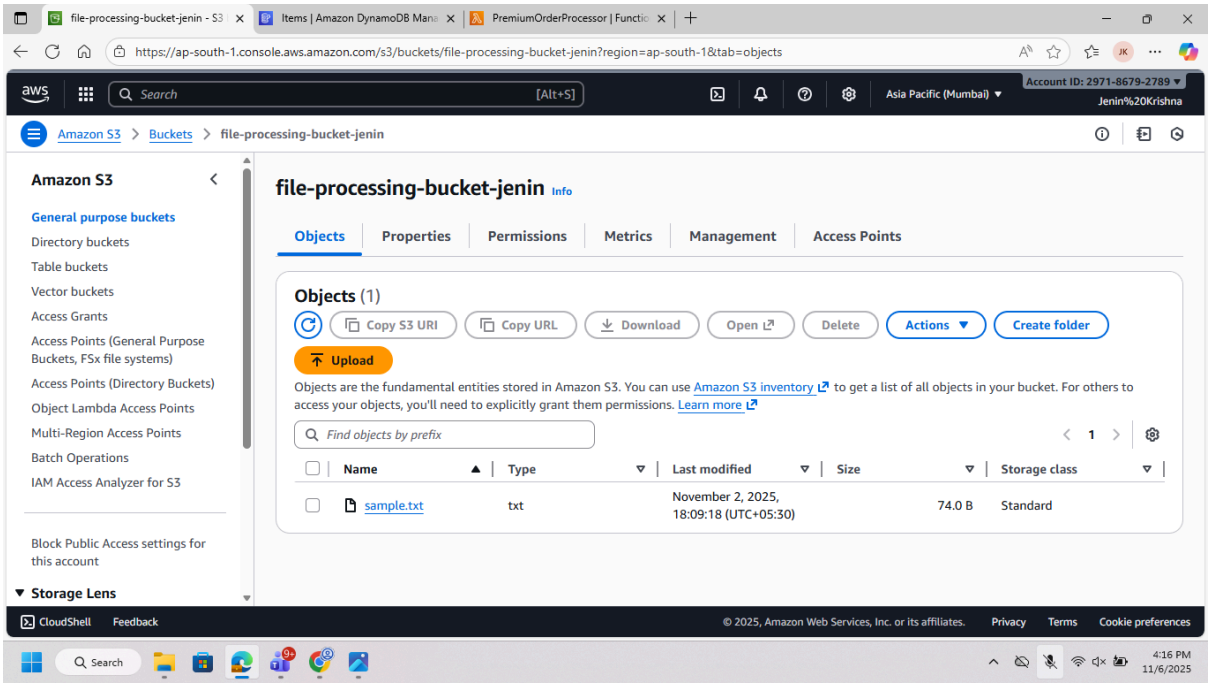
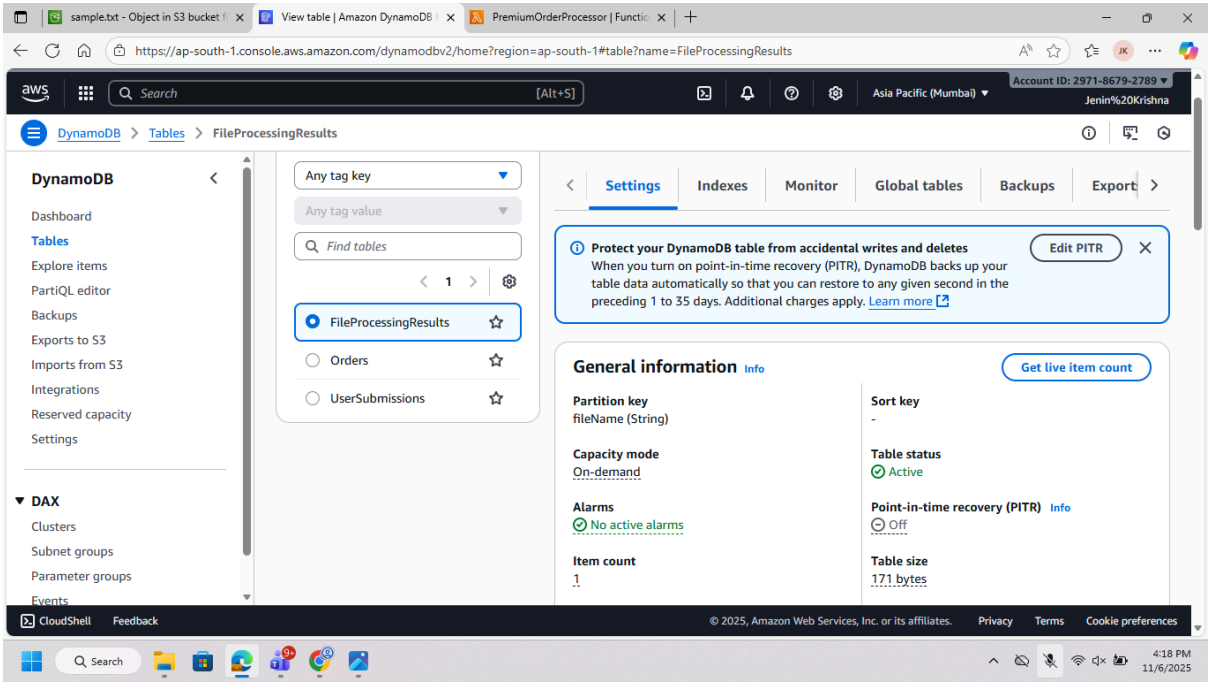
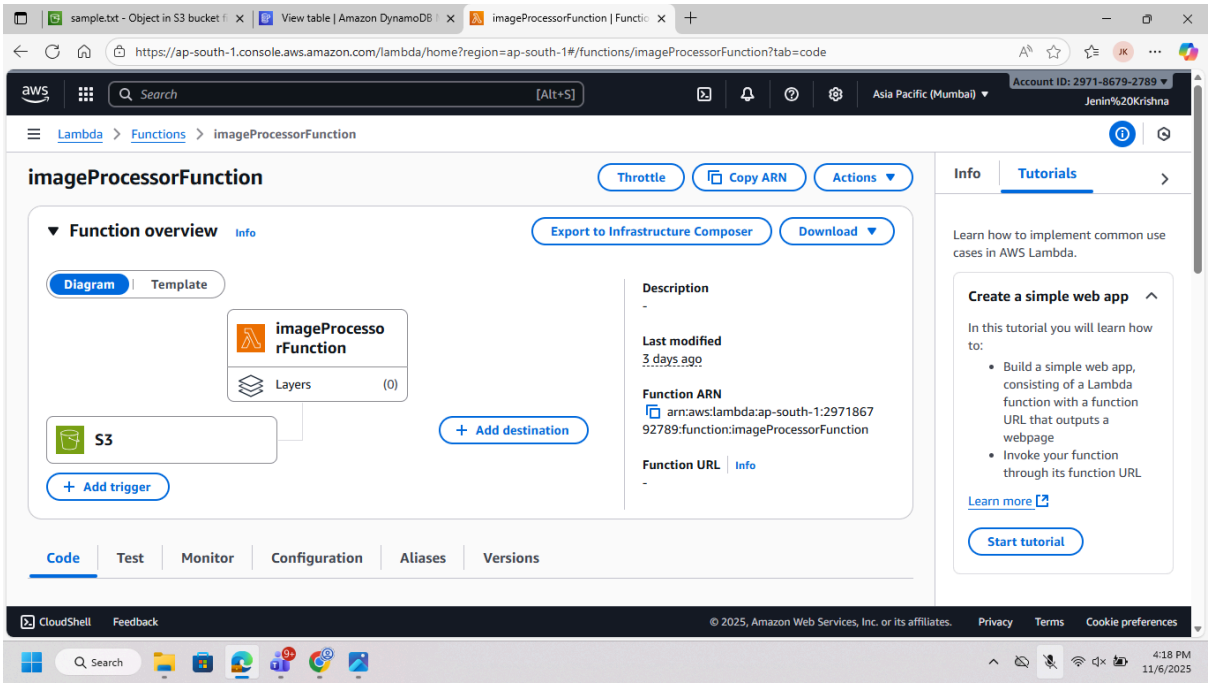
TASK - 3

Name : Jenin Krishna K P
Location : Chennai

File processing system :






sample.txt - Object in S3 bucket
View table | Amazon DynamoDB
imageProcessorFunction | Functic
https://ap-south-1.console.aws.amazon.com/lambda/home?region=ap-south-1#/functions/imageProcessorFunction?tab=code
Search
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Asia Pacific (Mumbai)
Account ID: 2971-8679-2789
Jenin%20Krishna
Lambda > Functions > imageProcessorFunction
imageProcessorFunction
Throttle
Copy ARN
Actions
Function overview
Info
Export to Infrastructure Composer
Download
Diagram
Template
imageProcessorFunction
Layers
(0)
S3
Add destination
Add trigger
Description
-
Last modified
3 days ago
Function ARN
arn:aws:lambda:ap-south-1:297186792789:function:imageProcessorFunction
Function URL
Info
-
Code
Test
Monitor
Configuration
Aliases
Versions
Info
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Learn how to implement common use cases in AWS Lambda.
Create a simple web app
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Invoke your function through its function URL
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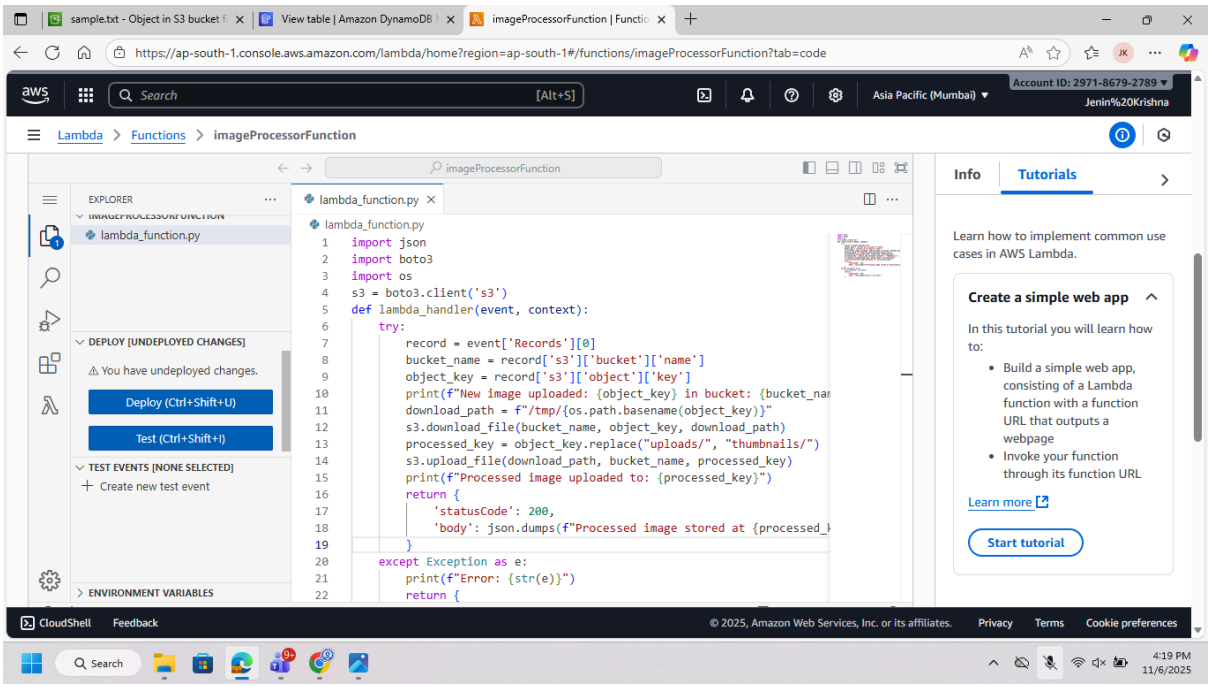
sample.txt - Object in S3 bucket
View table | Amazon DynamoDB
imageProcessorFunction | Functic
https://ap-south-1.console.aws.amazon.com/lambda/home?region=ap-south-1#/functions/imageProcessorFunction?tab=code
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Lambda > Functions > imageProcessorFunction
imageProcessorFunction
EXPLORER
lambda_function.py
DEPLOY [UNDEPLOYED CHANGES]
You have undeployed changes.
Deploy (Ctrl+Shift+U)
Test (Ctrl+Shift+I)
TEST EVENTS [NONE SELECTED]
Create new test event
ENVIRONMENT VARIABLES
lambda_function.py
import json
import boto3
import os
s3 = boto3.client('s3')
def lambda_handler(event, context):
try:
record = event['Records'][0]
bucket_name = record['s3']['bucket']['name']
object_key = record['s3']['object']['key']
print(f"New image uploaded: {object_key} in bucket: {bucket_nar
download_path = f"/tmp/{os.path.basename(object_key)}"
s3.download_file(bucket_name, object_key, download_path)
processed_key = object_key.replace("uploads/", "thumbnails/")
s3.upload_file(download_path, bucket_name, processed_key)
print(f"Processed image uploaded to: {processed_key}")
return {
'statusCode': 200,
'body': json.dumps(f"Processed image stored at {processed_k
}
except Exception as e:
print(f"Error: {str(e)}")
return {
Info
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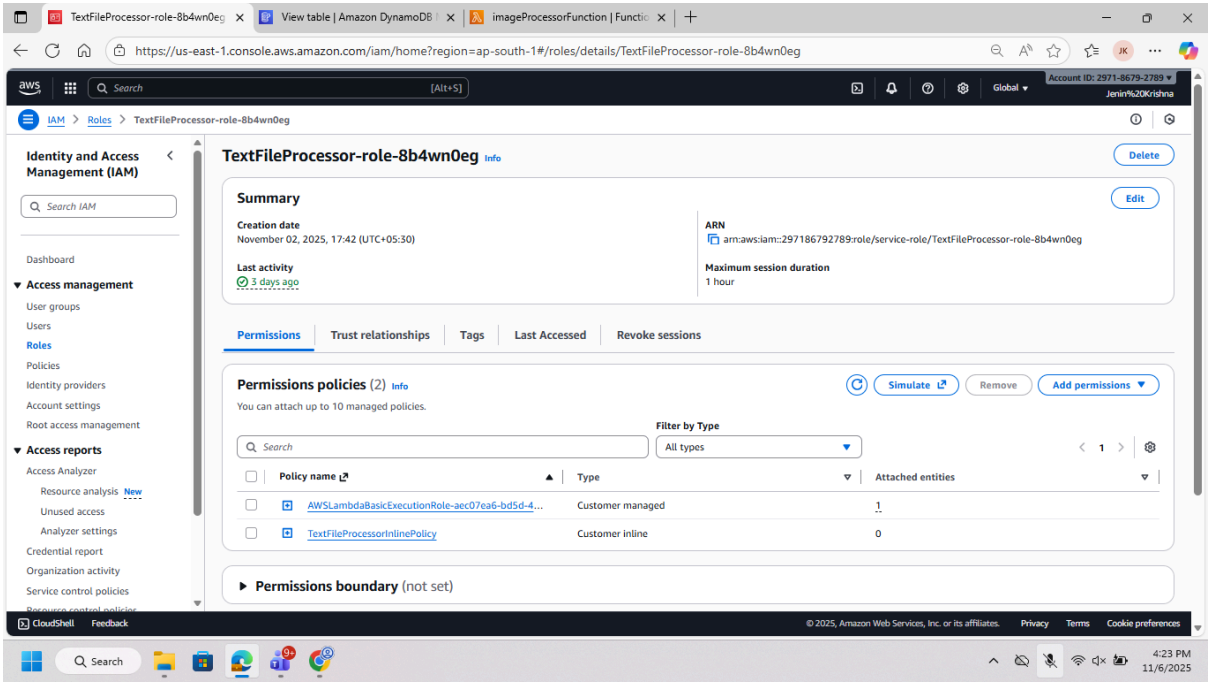
TextFileProcessor-role-8b4wn0eg
View table | Amazon DynamoDB
imageProcessorFunction | Functic
https://us-east-1.console.aws.amazon.com/iam/home?region=ap-south-1#/roles/details/TextFileProcessor-role-8b4wn0eg
Search
[Alt+S]
Global
Account ID: 2971-8679-2789
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IAM > Roles > TextFileProcessor-role-8b4wn0eg
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
Analyzer settings
Credential report
Organization activity
Service control policies
TextFileProcessor-role-8b4wn0eg Info
Delete
Summary
Edit
Creation date
November 02, 2025, 17:42 (UTC+05:30)
ARN
arn:aws:iam::297186792789:role/service-role/TextFileProcessor-role-8b4wn0eg
Last activity
3 days ago
Maximum session duration
1 hour
Permissions
Trust relationships
Tags
Last Accessed
Revoke sessions
Permissions policies (2) Info
You can attach up to 10 managed policies.
Simulate
Remove
Add permissions
Filter by Type
Search
All types
Policy name
Type
Attached entities
AWSLambdaBasicExecutionRole-aec07ea6-bd5d-4...
Customer managed
1
TextFileProcessorInlinePolicy
Customer inline
0
Permissions boundary (not set)
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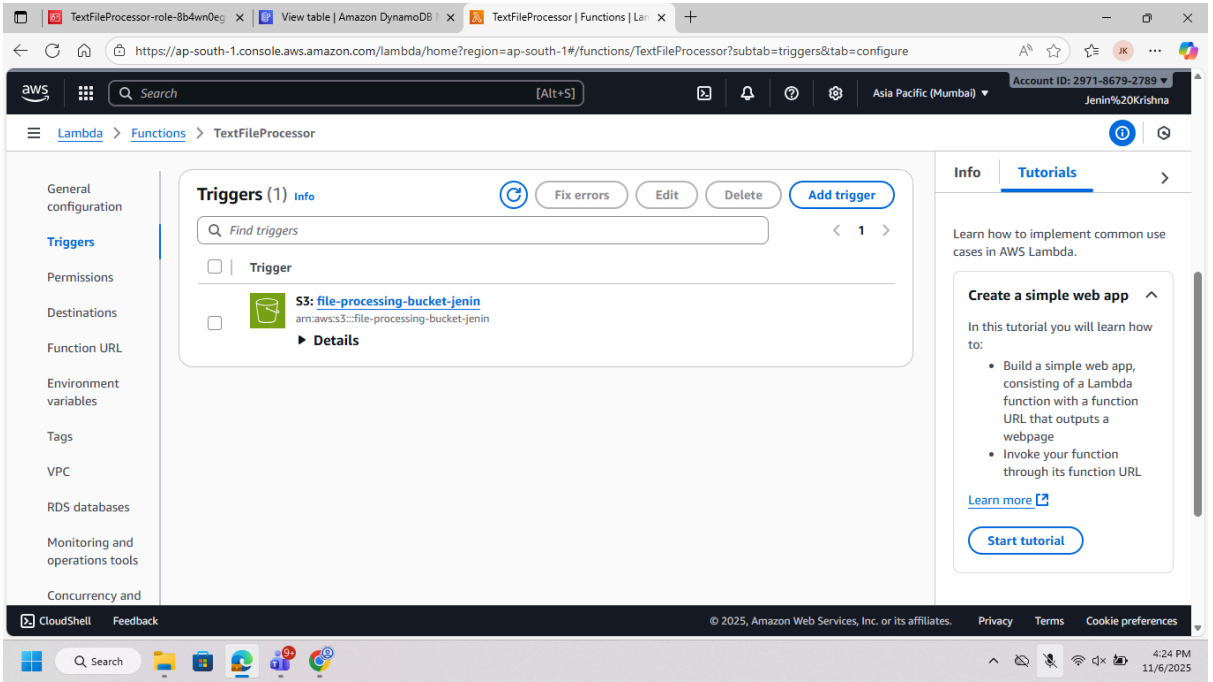
TextFileProcessor-role-8b4wn0eg
View table | Amazon DynamoDB
TextFileProcessor | Functions | La
https://ap-south-1.console.aws.amazon.com/lambda/home?region=ap-south-1#/functions/TextFileProcessor?subtab=triggers&tab=configure
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Lambda > Functions > TextFileProcessor
General configuration
Triggers
Permissions
Destinations
Function URL
Environment variables
Tags
VPC
RDS databases
Monitoring and operations tools
Concurrency and
Triggers (1) Info
Fix errors
Edit
Delete
Add trigger
Find triggers
Trigger
S3: file-processing-bucket-jenin
arn:aws:s3:::file-processing-bucket-jenin
Details
Info
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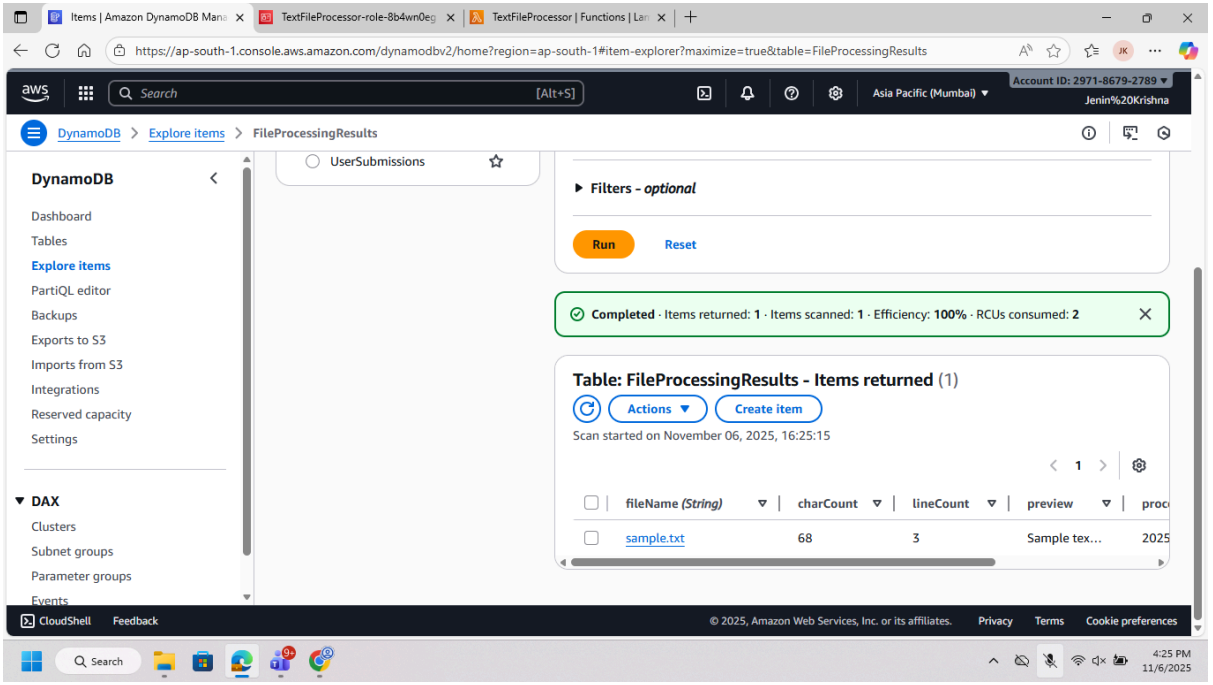
Items | Amazon DynamoDB
TextFileProcessor-role-8b4wn0eg
TextFileProcessor | Functions | La
https://ap-south-1.console.aws.amazon.com/dynamodbv2/home?region=ap-south-1#item-explorer?maximize=true&table=FileProcessingResults
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DynamoDB > Explore items > FileProcessingResults
DynamoDB
Dashboard
Tables
Explore items
PartiQL editor
Backups
Exports to S3
Imports from S3
Integrations
Reserved capacity
Settings
DAX
Clusters
Subnet groups
Parameter groups
Events
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, 16:25:15
fileName (String)
charCount
lineCount
preview
sample.txt
68
3
Sample tex...
2025
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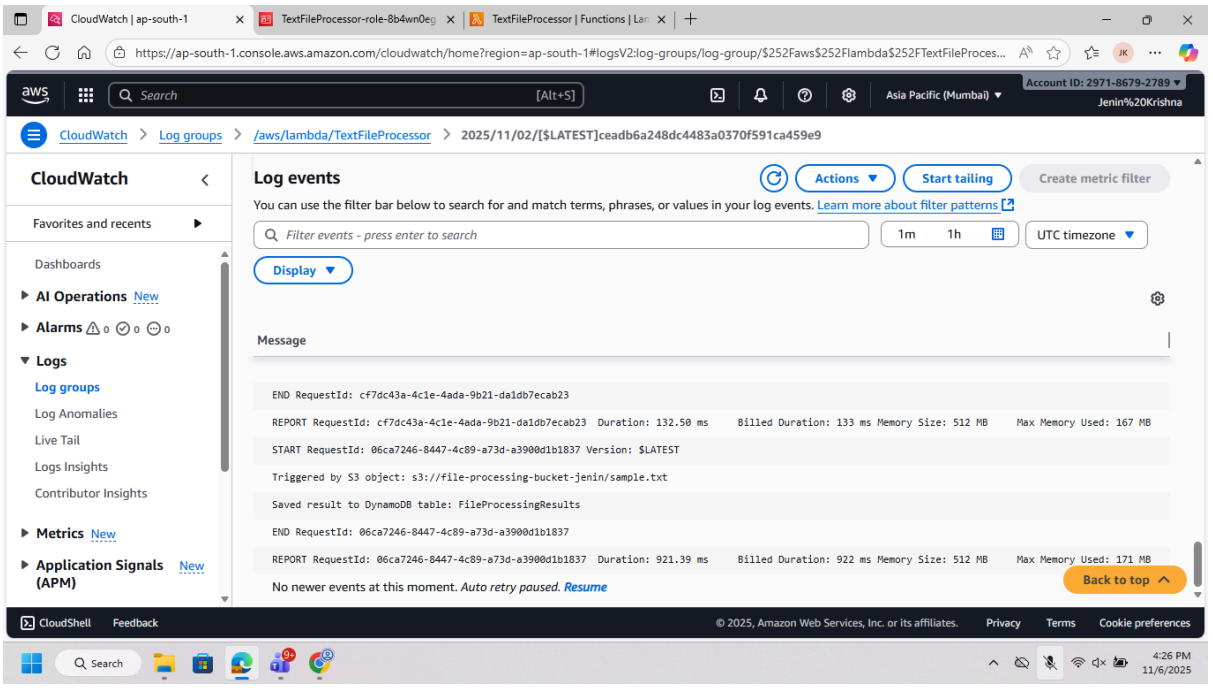
CloudWatch | ap-south-1
TextFileProcessor-role-8b4wn0eg
TextFileProcessor | Functions | La
https://ap-south-1.console.aws.amazon.com/cloudwatch/home?region=ap-south-1#logsV2:log-groups/log-group/$252Faws$252Flambda$252FTextFileProces...
Search [Alt+S]
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Account ID: 2971-8679-2789
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CloudWatch > Log groups > /aws/lambda/TextFileProcessor > 2025/11/02/[$LATEST]ceadb6a248dc4483a0370f591ca459e9
CloudWatch
Favorites and recents
Dashboards
AI Operations New
Alarms
Logs
Log groups
Log Anomalies
Live Tail
Logs Insights
Contributor Insights
Metrics New
Application Signals (APM) 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
Message
END RequestId: cf7dc43a-4c1e-4ada-9b21-da1db7ecab23
REPORT RequestId: cf7dc43a-4c1e-4ada-9b21-da1db7ecab23 Duration: 132.50 ms Billed Duration: 133 ms Memory Size: 512 MB Max Memory Used: 167 MB
START RequestId: 06ca7246-8447-4c89-a73d-a3900d1b1837 Version: $LATEST
Triggered by S3 object: s3://file-processing-bucket-jenin/sample.txt
Saved result to DynamoDB table: FileProcessingResults
END RequestId: 06ca7246-8447-4c89-a73d-a3900d1b1837
REPORT RequestId: 06ca7246-8447-4c89-a73d-a3900d1b1837 Duration: 921.39 ms Billed Duration: 922 ms Memory Size: 512 MB Max Memory Used: 171 MB
No newer events at this moment. Auto retry paused. Resume
Back to top
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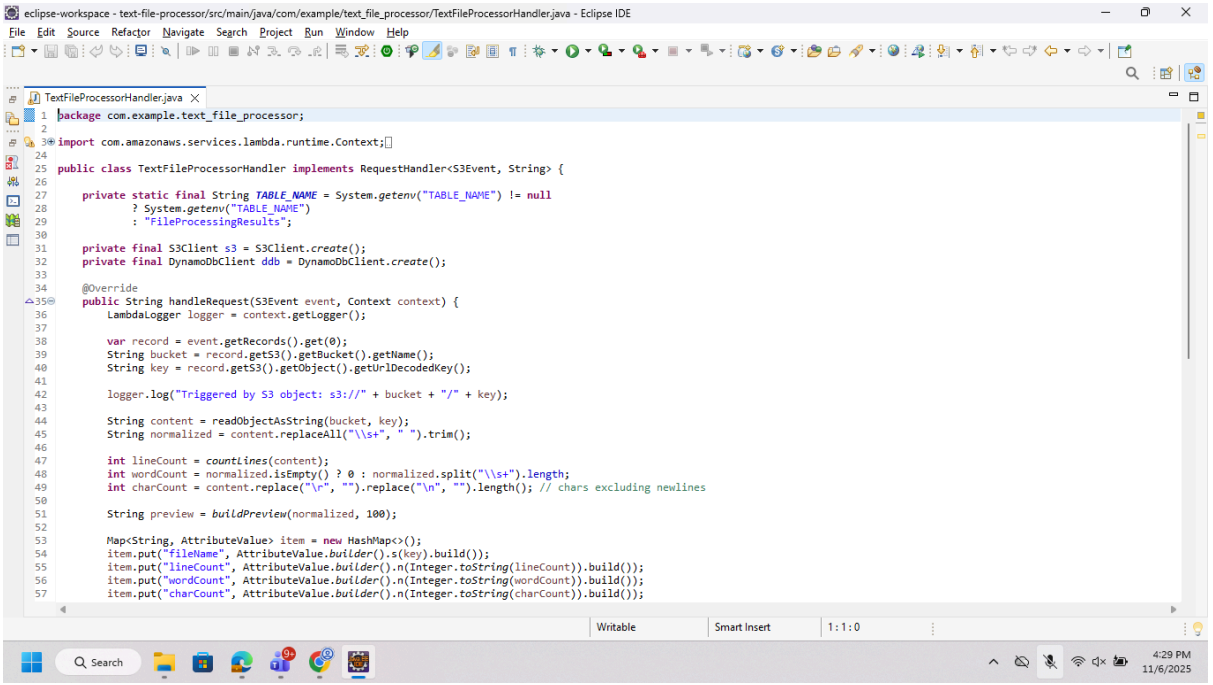
eclipse-workspace - text-file-processor/src/main/java/com/example/text_file_processor/TextFileProcessorHandler.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
TextFileProcessorHandler.java
package com.example.text_file_processor;
import com.amazonaws.services.lambda.runtime.Context;
public class TextFileProcessorHandler implements RequestHandler<S3Event, String> {
private static final String TABLE_NAME = System.getenv("TABLE_NAME") != null
? System.getenv("TABLE_NAME")
: "FileProcessingResults";
private final S3Client s3 = S3Client.create();
private final DynamoDbClient ddb = DynamoDbClient.create();
@Override
public String handleRequest(S3Event event, Context context) {
LambdaLogger logger = context.getLogger();
var record = event.getRecords().get(0);
String bucket = record.getS3().getBucket().getName();
String key = record.getS3().getObject().getUrlDecodedKey();
logger.log("Triggered by S3 object: s3://" + bucket + "/" + key);
String content = readObjectAsString(bucket, key);
String normalized = content.replaceAll("\\s+", " ").trim();
int lineCount = countLines(content);
int wordCount = normalized.isEmpty() ? 0 : normalized.split("\\s+").length;
int charCount = content.replace("\r", "").replace("\n", "").length(); // chars excluding newlines
String preview = buildPreview(normalized, 100);
Map<String, AttributeValue> item = new HashMap<>();
item.put("fileName", AttributeValue.builder().s(key).build());
item.put("lineCount", AttributeValue.builder().n(Integer.toString(lineCount)).build());
item.put("wordCount", AttributeValue.builder().n(Integer.toString(wordCount)).build());
item.put("charCount", AttributeValue.builder().n(Integer.toString(charCount)).build());
Writable
Smart Insert
1 : 1 : 0
Search
4:29 PM
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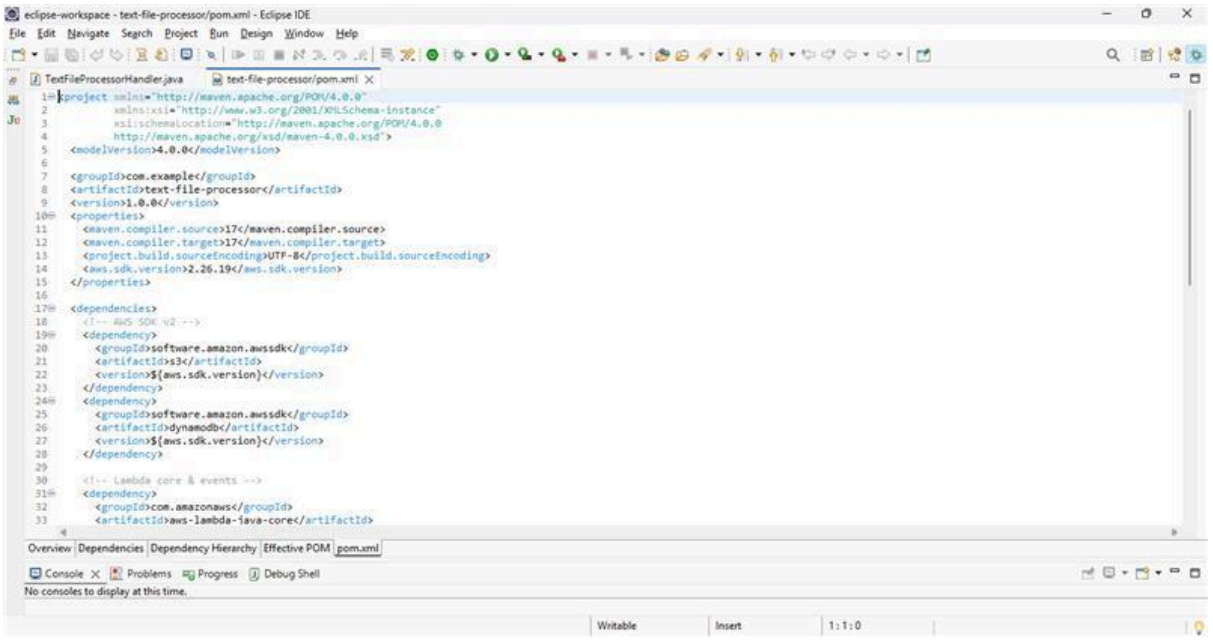
eclipse-workspace - text-file-processor/pom.xml - Eclipse IDE
File Edit Navigate Search Project Run Design Window Help
TextFileProcessorHandler.java
text-file-processor/pom.xml
<project xmlns="http://maven.apache.org/POM/4.0.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://maven.apache.org/POM/4.0.0
http://maven.apache.org/xsd/maven-4.0.0.xsd">
<modelVersion>4.0.0</modelVersion>
<groupId>com.example</groupId>
<artifactId>text-file-processor</artifactId>
<version>1.0.0</version>
<properties>
<maven.compiler.source>17</maven.compiler.source>
<maven.compiler.target>17</maven.compiler.target>
<project.build.sourceEncoding>UTF-8</project.build.sourceEncoding>
<aws.sdk.version>2.26.19</aws.sdk.version>
</properties>
<dependencies>
<!-- AWS SDK v2 -->
<dependency>
<groupId>software.amazon.awssdk</groupId>
<artifactId>s3</artifactId>
<version>${aws.sdk.version}</version>
</dependency>
<dependency>
<groupId>software.amazon.awssdk</groupId>
<artifactId>dynamodb</artifactId>
<version>${aws.sdk.version}</version>
</dependency>
<!-- Lambda core & events -->
<dependency>
<groupId>com.amazonaws</groupId>
<artifactId>aws-lambda-java-core</artifactId>
Overview Dependencies Dependency Hierarchy Effective POM pom.xml
Console Problems Progress Debug Shell
No consoles to display at this time.
Writable
Insert
1 : 1 : 0