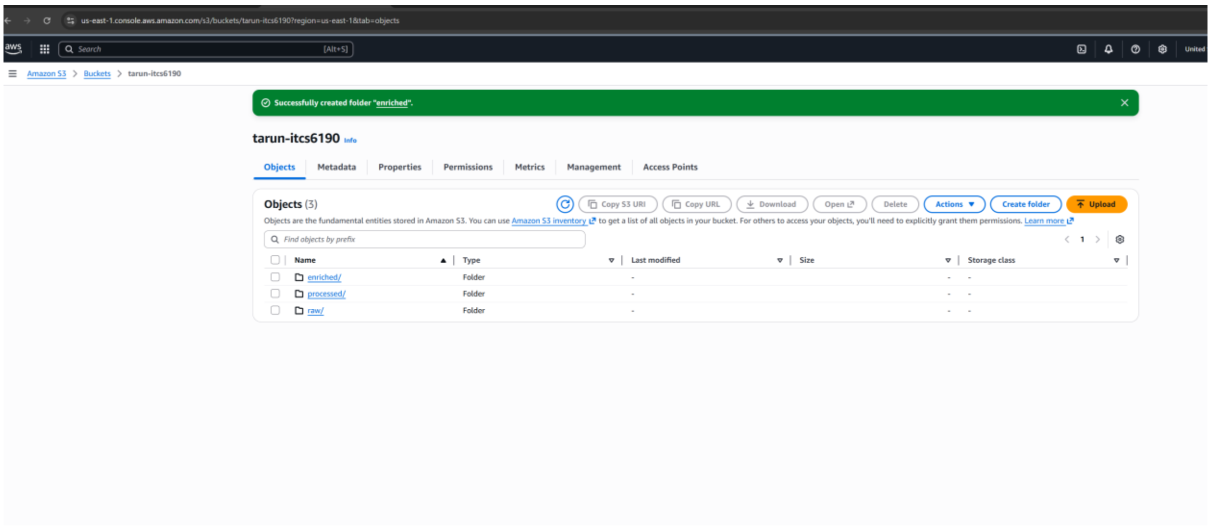


us-east-1.console.aws.amazon.com/s3/buckets/tarun-itcs6190?region=us-east-1&tab=objects

Amazon S3 > Buckets > tarun-itcs6190

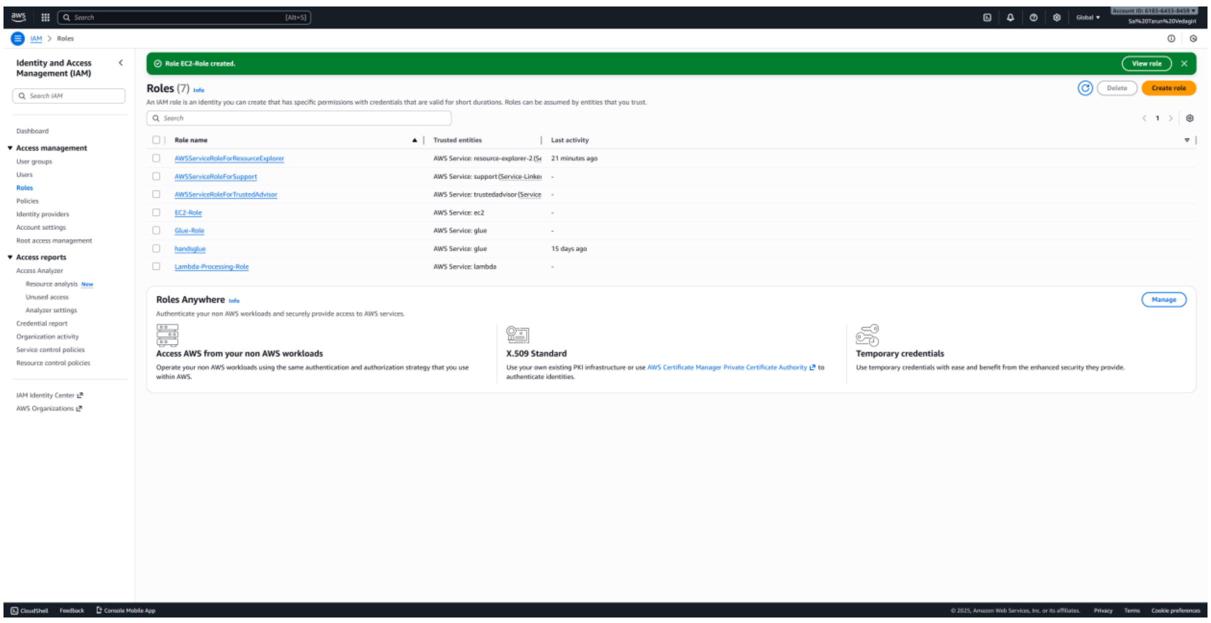
Successfully created folder "enriched".

tarun-itcs6190

Objects (3)

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

Name	Type	Last modified	Size	Storage class
enriched/	Folder	-	-	-
processed/	Folder	-	-	-
raw/	Folder	-	-	-



IAM > Roles

Role EC2-Role created.

Roles (7)

An IAM role is an identity you can create that has specific permissions with credentials that are valid for short durations. Roles can be assumed by entities that you trust.

Role name	Trusted entities	Last activity
AWSServiceRoleForResourceExplorer	AWS Service: resource-explorer-2 (Se	21 minutes ago
AWSServiceRoleForSupport	AWS Service: support (Service-Linke	-
AWSServiceRoleForTrustedAdvisor	AWS Service: trustedadvisor (Service	-
EC2-Role	AWS Service: ec2	-
Glue-Role	AWS Service: glue	-
handsglue	AWS Service: glue	15 days ago
Lambda-Processing-Role	AWS Service: lambda	-

Roles Anywhere

Authenticate your non AWS workloads and securely provide access to AWS services.

Access AWS from your non AWS workloads

Operate your non AWS workloads using the same authentication and authorization strategy that you use within AWS.

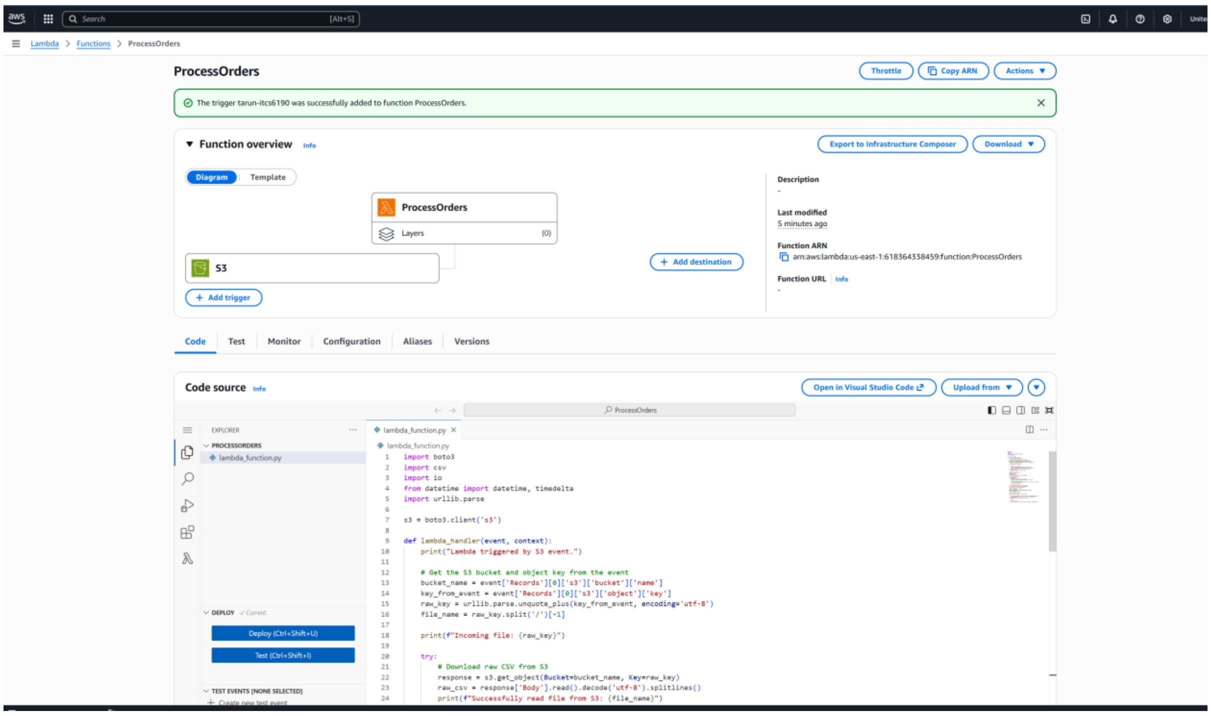
X.509 Standard

Use your own existing PKI infrastructure or use AWS Certificate Manager Private Certificate Authority to authenticate identities.

Temporary credentials

Use temporary credentials with ease and benefit from the enhanced security they provide.

ProcessOrders


Lambda > Functions > ProcessOrders

ProcessOrders

The trigger tarun-itcs6190 was successfully added to function ProcessOrders.

Function overview

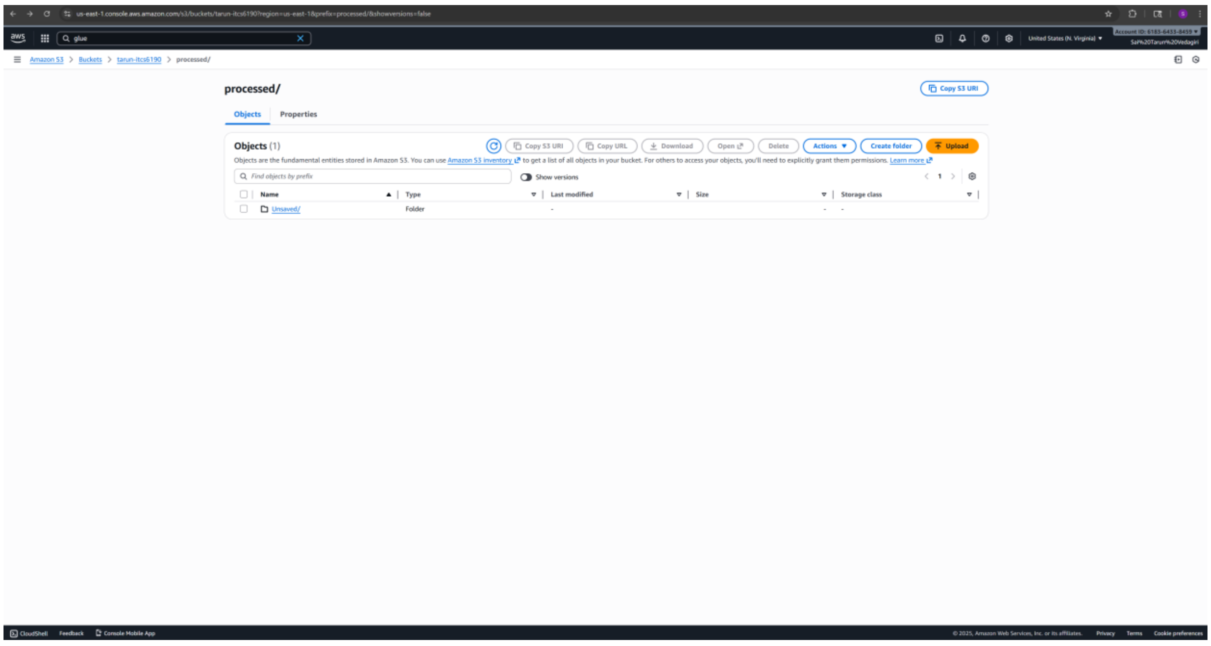
Description
-

Last modified
5 minutes ago

Function ARN
arn:aws:lambda:us-east-1:618364338459:function:ProcessOrders

Function URL
-

```
import boto3
import csv
import io
from datetime import datetime, timedelta
import urllib.parse

s3 = boto3.client('s3')

def lambda_handler(event, context):
    print("Lambda triggered by S3 event.")

    # Get the S3 bucket and object key from the event
    bucket_name = event['Records'][0]['s3']['bucket']['name']
    key_from_event = event['Records'][0]['s3']['object']['key']
    raw_key = urllib.parse.unquote_plus(key_from_event, encoding='utf-8')
    file_name = raw_key.split('/')[-1]

    print(f"Incoming file: {raw_key}")

    try:
        # Download raw CSV from S3
        response = s3.get_object(Bucket=bucket_name, Key=raw_key)
        raw_csv = response['Body'].read().decode('utf-8').splitlines()
        print(f"Successfully read file from S3: {file_name}")
```


us-east-1.console.aws.amazon.com/s3/buckets/tarun-itcs6190?region=us-east-1&prefix=processed/&showversions=false

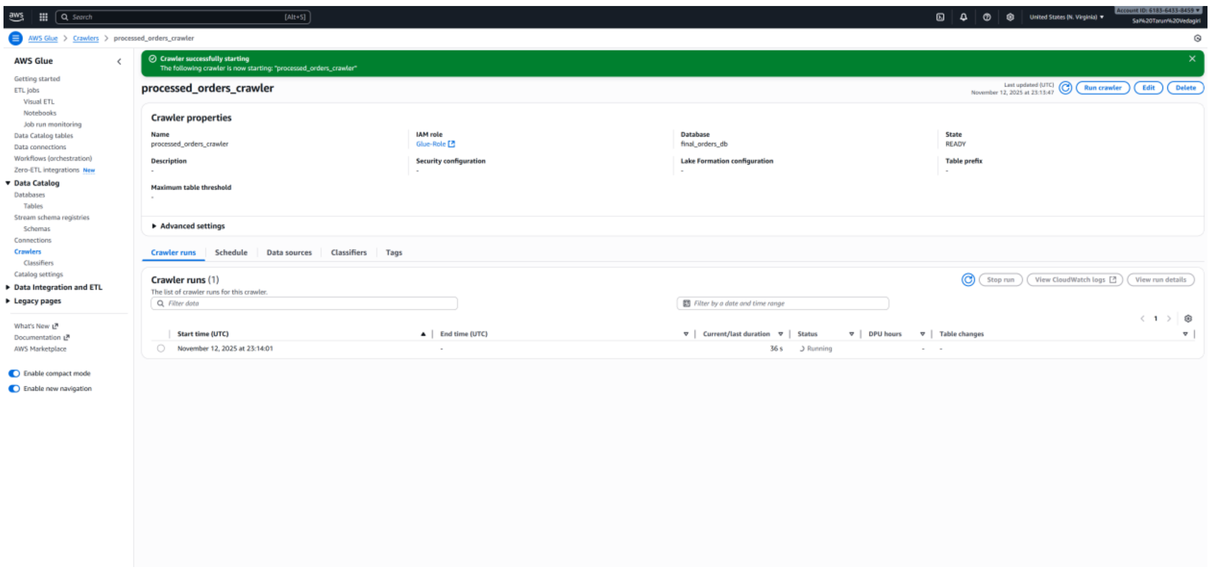
Amazon S3 > Buckets > tarun-itcs6190 > processed/

processed/

Objects (1)

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

Name	Type	Last modified	Size	Storage class
Unsaved/	Folder	-	-	-



Crawler successfully starting
The following crawler is now starting: "processed_orders_crawler"

processed_orders_crawler

Last updated (UTC)
November 12, 2025 at 23:13:47

Crawler properties

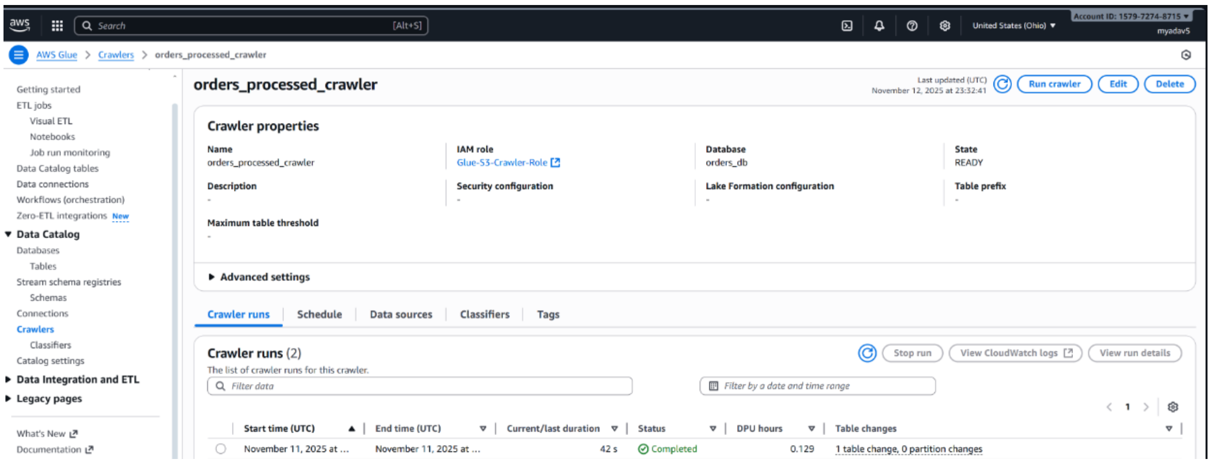
Name	**IAM role**	**Database**	**State**
processed_orders_crawler	Glue-Role	final_orders_db	READY
Description	**Security configuration**	**Lake Formation configuration**	**Table prefix**
-	-	-	-
Maximum table threshold			
-			

Advanced settings

Crawler runs | Schedule | Data sources | Classifiers | Tags

Crawler runs (1)
The list of crawler runs for this crawler.

	Start time (UTC)	End time (UTC)	Current/last duration	Status	DPU hours	Table changes
○	November 12, 2025 at 23:14:01	-	36 s	Running	-	-



orders_processed_crawler

Last updated (UTC)
November 12, 2025 at 23:32:41

Crawler properties

Name	**IAM role**	**Database**	**State**
orders_processed_crawler	Glue-S3-Crawler-Role	orders_db	READY
Description	**Security configuration**	**Lake Formation configuration**	**Table prefix**
-	-	-	-
Maximum table threshold			
-			

Advanced settings

Crawler runs | Schedule | Data sources | Classifiers | Tags

Crawler runs (2)
The list of crawler runs for this crawler.

	Start time (UTC)	End time (UTC)	Current/last duration	Status	DPU hours	Table changes
○	November 11, 2025 at ...	November 11, 2025 at ...	42 s	Completed	0.129	1 table change, 0 partition changes

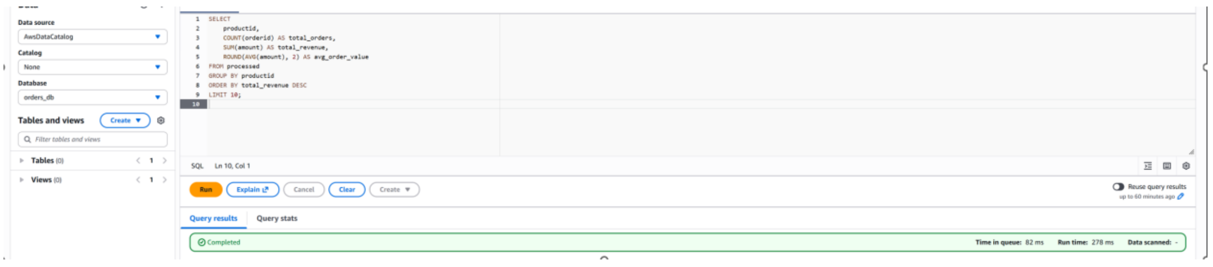
Query 1: Top-Selling Products

Business Question: Which products generate the most revenue and sales volume?

```
SELECT
    productid,
    COUNT(orderid) AS total_orders,
    SUM(amount) AS total_revenue,
    ROUND(AVG(amount), 2) AS avg_order_value
FROM processed
GROUP BY productid
ORDER BY total_revenue DESC
```

LIMIT 10;

Insight: Identifies the best-performing products to prioritize for inventory, promotions, or restocking.



Data source: AwsDataCatalog
Catalog: None
Database: orders_db

```
SELECT
    productid,
    COUNT(orderid) AS total_orders,
    SUM(amount) AS total_revenue,
    ROUND(AVG(amount), 2) AS avg_order_value
FROM processed
GROUP BY productid
ORDER BY total_revenue DESC
LIMIT 10;
```

SQL Ln 10, Col 1

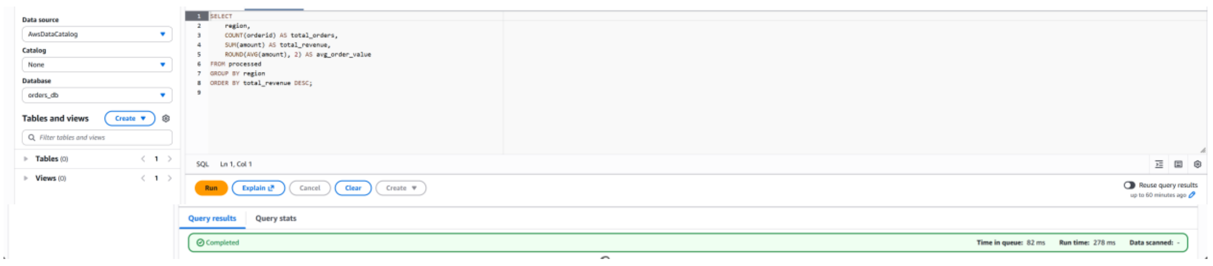
Completed Time in queue: 82 ms Run time: 278 ms Data scanned: -

Query 2: Revenue by Region or Country

Business Question: Which regions or countries contribute most to total revenue?

```
SELECT
    region,
    COUNT(orderid) AS total_orders,
    SUM(amount) AS total_revenue,
    ROUND(AVG(amount), 2) AS avg_order_value
FROM processed
GROUP BY region
ORDER BY total_revenue DESC;
```

Insight: Helps target high-performing regions for marketing and expansion while identifying underperforming areas.



Data source: AwsDataCatalog
Catalog: None
Database: orders_db

```
SELECT
    region,
    COUNT(orderid) AS total_orders,
    SUM(amount) AS total_revenue,
    ROUND(AVG(amount), 2) AS avg_order_value
FROM processed
GROUP BY region
ORDER BY total_revenue DESC;
```

SQL Ln 1, Col 1

Completed Time in queue: 82 ms Run time: 278 ms Data scanned: -

Query 3: Payment Method Performance

Business Question: Which payment methods are most commonly used and generate the most revenue?

SELECT

paymentmethod,

COUNT(orderid) AS total_orders,

SUM(amount) AS total_revenue,

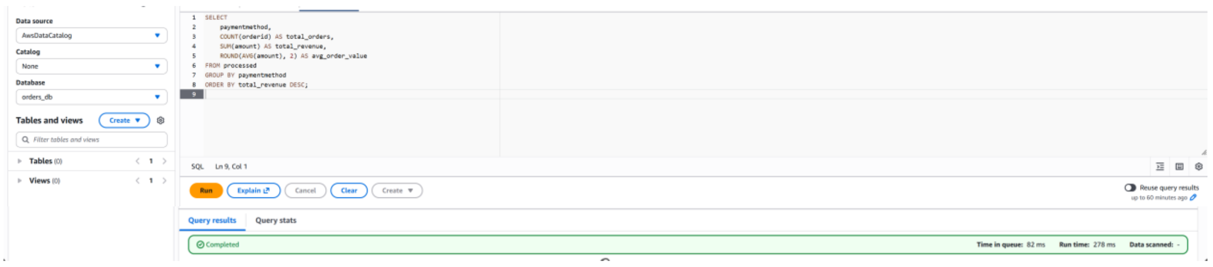
ROUND(AVG(amount), 2) AS avg_order_value

FROM processed

GROUP BY paymentmethod

ORDER BY total_revenue DESC;

Insight: Assists in understanding customer preferences and optimizing payment options to improve checkout experience.



Data source: AwsDataCatalog
Catalog: None
Database: orders_db

```
SELECT
    paymentmethod,
    COUNT(orderid) AS total_orders,
    SUM(amount) AS total_revenue,
    ROUND(AVG(amount), 2) AS avg_order_value
FROM processed
GROUP BY paymentmethod
ORDER BY total_revenue DESC;
```

SQL Ln 9, Col 1

Completed — Time in queue: 82 ms Run time: 278 ms Data scanned: -