# Spotify Data ETL Integration on AWS for Seamless Analytics

Details :

- Effectively integrated and utilized Spotify API to optimize data extraction
- Successfully deployed code onto AWS Lambda, establishing a smooth and automated data extraction process.
- Implemented triggers to facilitate automatic execution of the extraction process
- Developed robust transformation functions, enhancing data quality and utility
- Established automated triggers for seamless execution of transformation operations
- Effectively organized and stored data files on S3, ensuring optimal accessibility and management
- Skillfully constructed comprehensive analytics tables using Glue and Athena, facilitating insightful data analysis
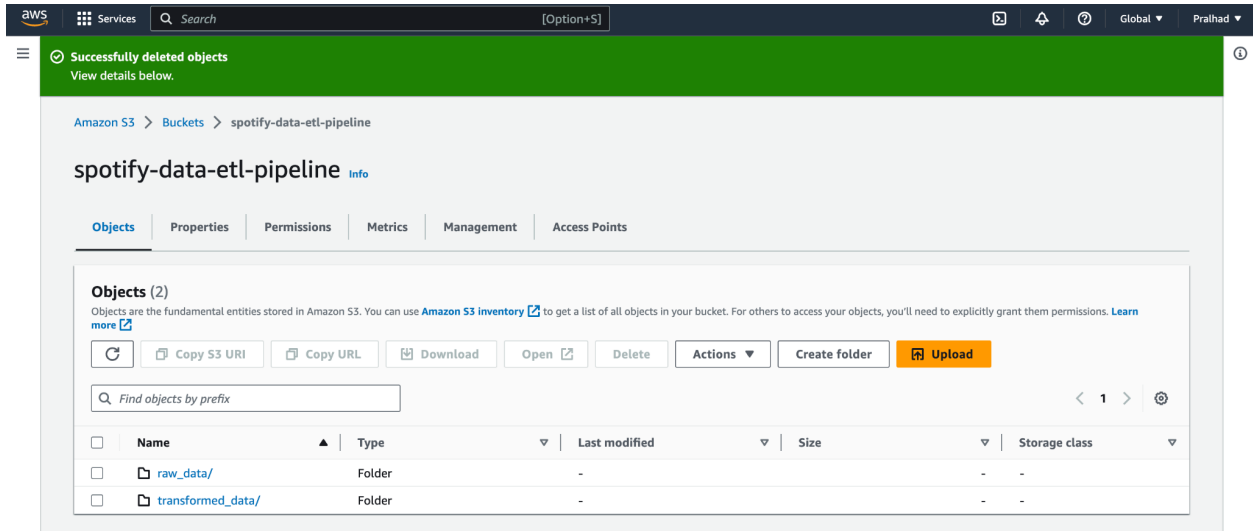
Architecture :
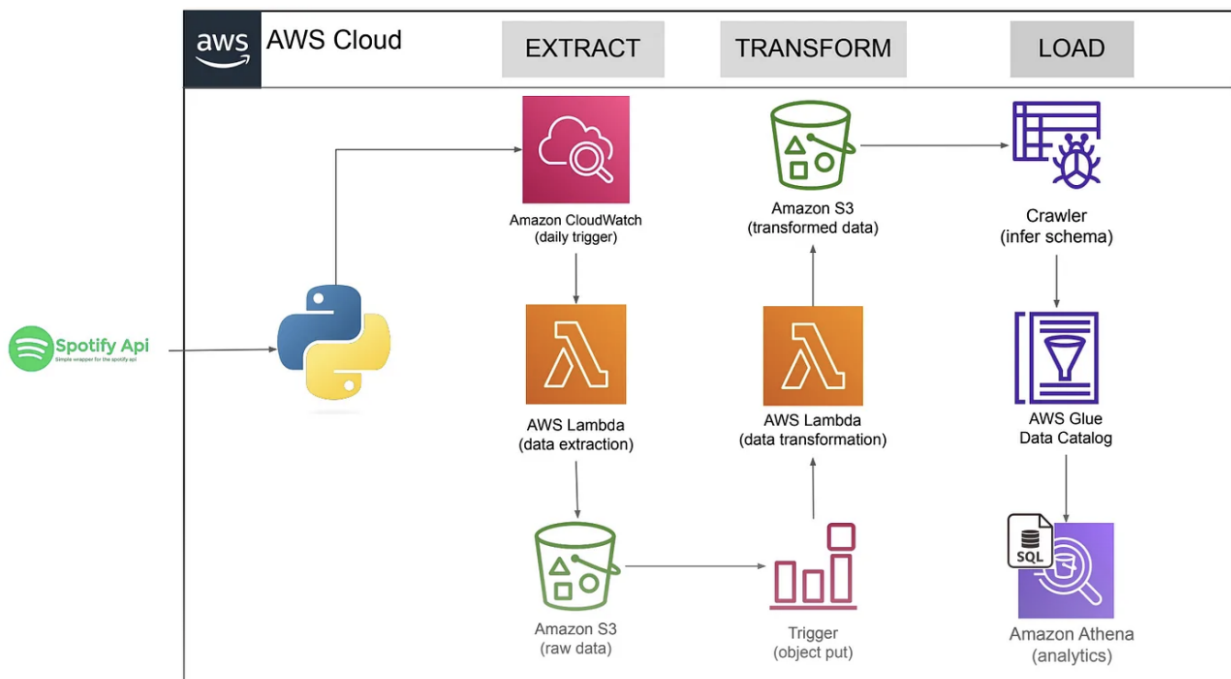
Output screenshots :

1. Event Triggers
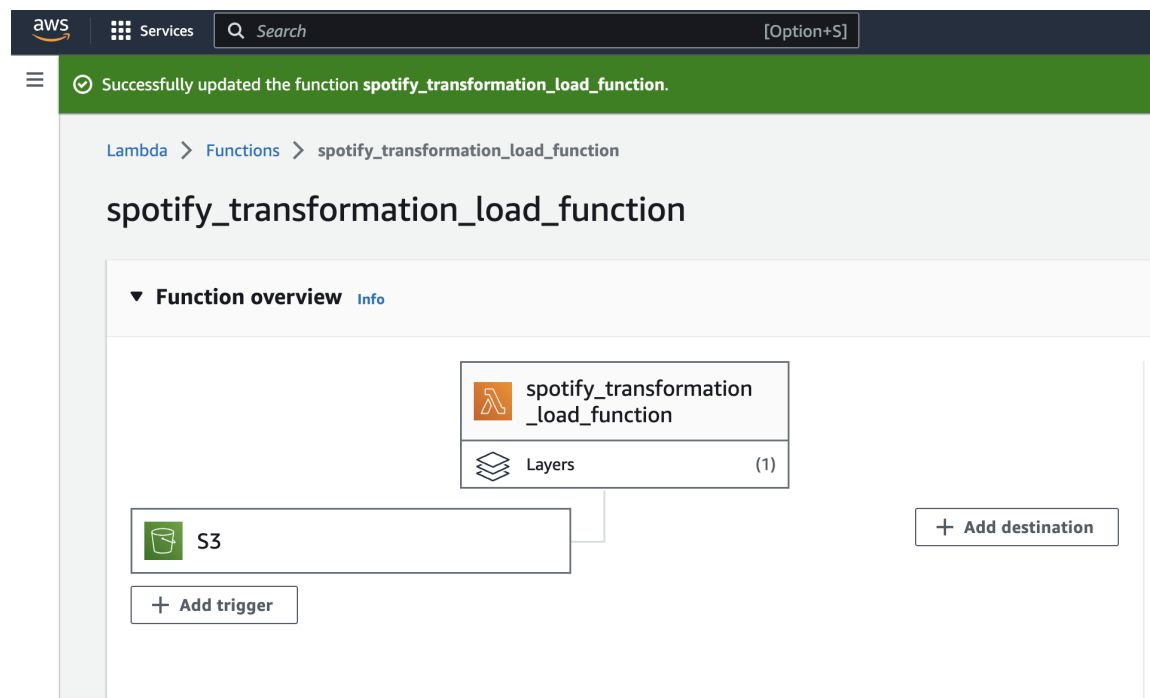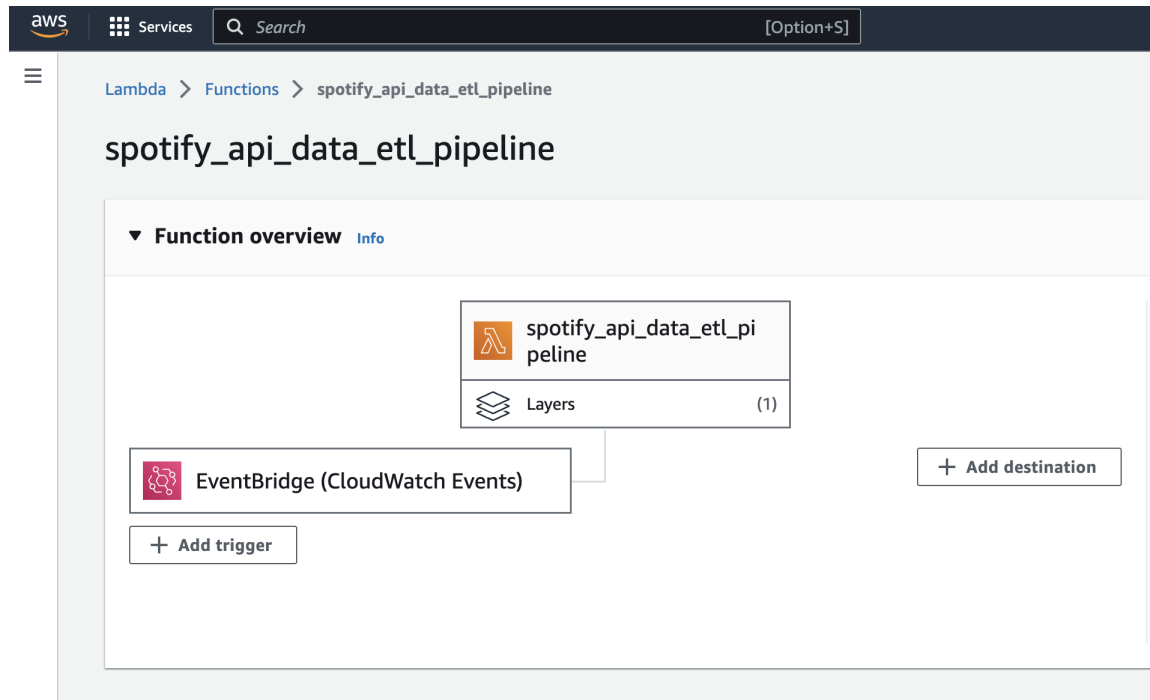
2. AWS S3 Bucket Structure :

Amazon S3 > Buckets > spotify-data-etl-pipeline > transformed_data/
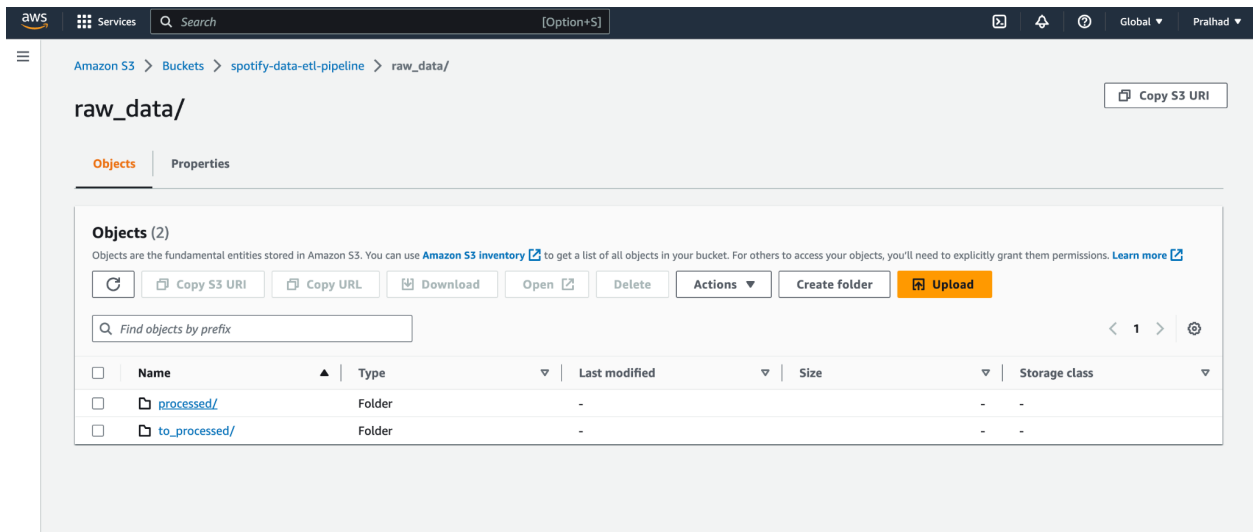
transformed_data/

Copy S3 URI

Objects | **Properties**

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** ↗

C | Copy S3 URI | Copy URL | Download | Open ↗ | Delete | Actions ▾ | Create folder | **Upload**

🔍 Find objects by prefix

< 1 > ⚙

☐	Name ▲	Type ▽	Last modified ▽	Size ▽	Storage class ▽
☐	📁 album_data/	Folder	-	-	-
☐	📁 artist_data/	Folder	-	-	-
☐	📁 songs_data/	Folder	-	-	-

Amazon S3 > Buckets > spotify-data-etl-pipeline > transformed_data/ > songs_data/

songs_data/

Copy S3 URI

Objects | **Properties**

Objects (4)

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** ↗

C | Copy S3 URI | Copy URL | Download | Open ↗ | Delete | Actions ▾ | Create folder | **Upload**

🔍 Find objects by prefix

< 1 > ⚙

☐	Name ▲	Type ▽	Last modified ▽	Size ▽	Storage class ▽
☐	📄 songs_transformed_2023-08-15 06:46:04.010595.csv	csv	August 14, 2023, 23:46:05 (UTC-07:00)	8.7 KB	Standard
☐	📄 songs_transformed_2023-08-15 07:16:52.747261.csv	csv	August 15, 2023, 00:16:53 (UTC-07:00)	8.7 KB	Standard
☐	📄 songs_transformed_2023-08-16 17:45:04.436171.csv	csv	August 16, 2023, 10:45:05 (UTC-07:00)	8.7 KB	Standard
☐	📄 songs_transformed_2023-08-16 18:09:06.756594.csv	csv	August 16, 2023, 11:09:08 (UTC-07:00)	8.7 KB	Standard

3. AWS Glue data log :

4. AWS Athena - SQL querying :