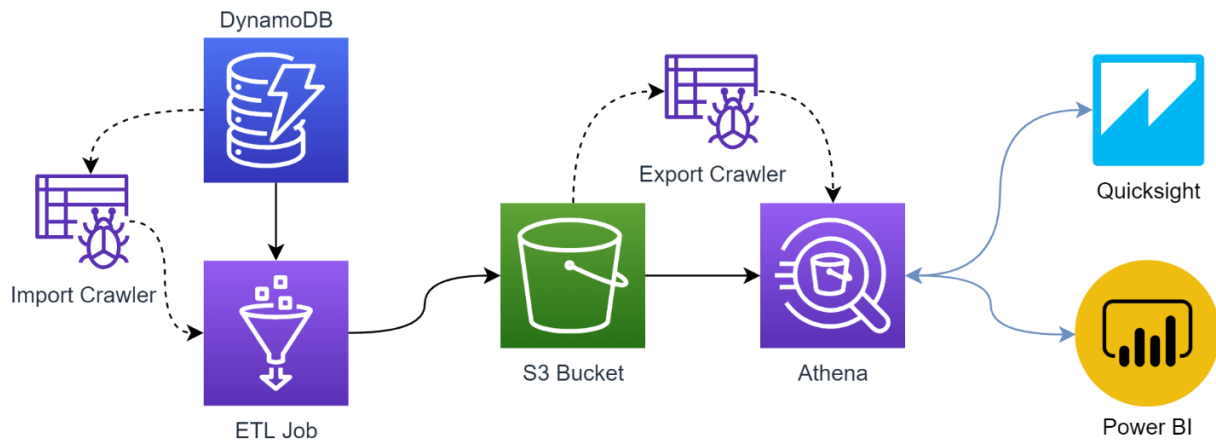


## GENERALIZED EXTENSION PROJECT STEP TO VISUALIZE ANY SENSOR DATA IN OUR LAB

### Block Diagram:



So, here after receiving the data from the DynamoDB, from our any IOT nodes from the lab

We must visualize the data So here I taken a previous documentation reference

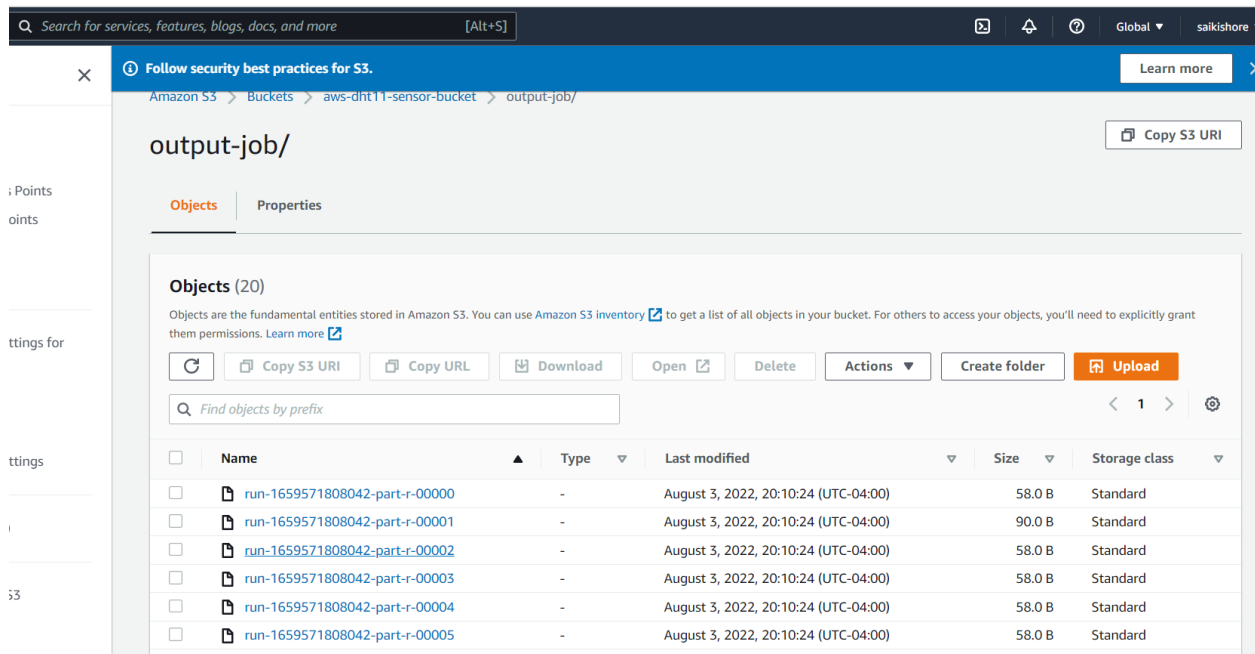
And created a path.

Using the services of aws I created a path to visualize our data at power bi

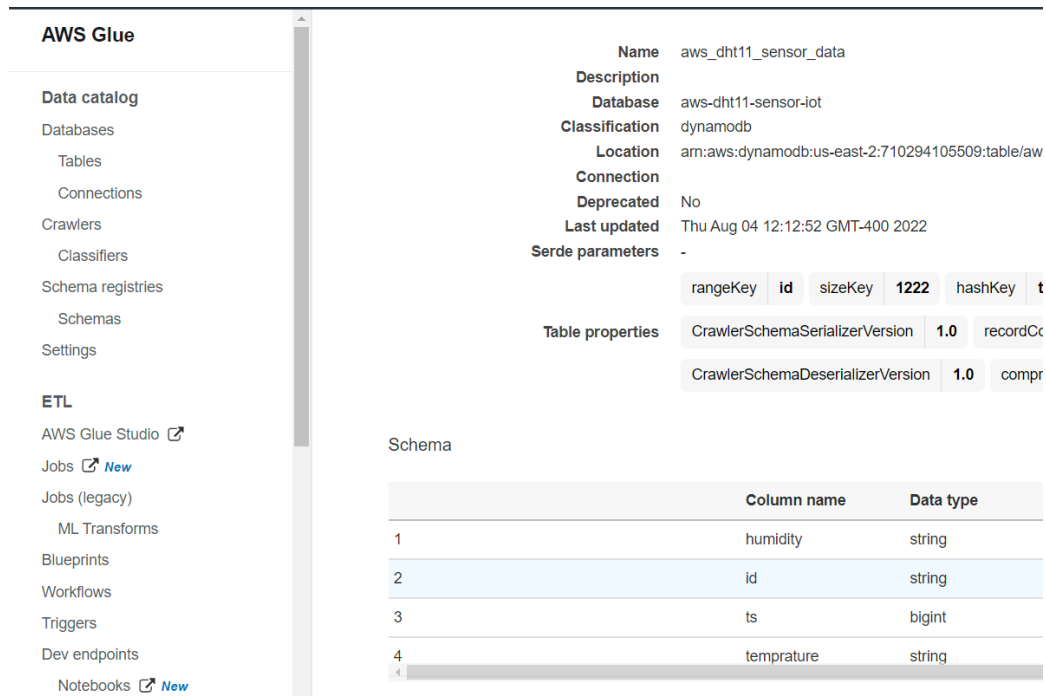
CREATED A NODE THAT SENDS DATA TO THE Aws IOT core and enabled a service that

Initially using AWS Glue ETL service I Created a crawler THAT CRAWLS THE DATA from the dynamo db. table, and the Aws GLUE ETL Service will (EXTRACT AND TRANSFORM LOAD) THE DATA ON TO THE S3 bucket once the data is in s3 bucket IT will be pushed to Athena by creating an export crawler

- Image of data export crawled by using aws glue service and ETL to S3 bucket



- Image of import crawler and data from the table is being extracted



Once the data into the s3 bucket I Created another export crawler and sensor the data from aws s3 bucket to data analytics service ATHENA

- IMAGE OF EXPORT CRAWLER FROM S3 BUCKET DATA SOURCE TO THE ATHENA

The screenshot displays the AWS Management Console interface for an export crawler. At the top, the breadcrumb 'Crawlers > aws-dht11-sensor-export-crawler' is visible. Below this, there are two buttons: 'Run crawler' and 'Edit'. The main content area lists various configuration details for the crawler, including its name, description, security settings, schedule, and data source information. A 'Configuration options' section at the bottom provides details on schema updates and object deletion in the data store.

<b>Name</b>	aws-dht11-sensor-export-crawler
<b>Description</b>	
<b>Create a single schema for each S3 path</b>	false
<b>Security configuration</b>	
<b>Tags</b>	-
<b>State</b>	Ready
<b>Schedule</b>	
<b>Last updated</b>	Wed Aug 03 20:18:13 GMT-400 2022
<b>Date created</b>	Wed Aug 03 20:18:13 GMT-400 2022
<b>Database</b>	aws-dht11-sensor-export-database
<b>Table prefix</b>	DATASET_
<b>Table level</b>	
<b>Service role</b>	aws-dht11-sensor-role
<b>Selected classifiers</b>	
<b>Data store</b>	S3
<b>Include path</b>	s3://aws-dht11-sensor-bucket/output-job
<b>Connection</b>	
<b>Exclude patterns</b>	

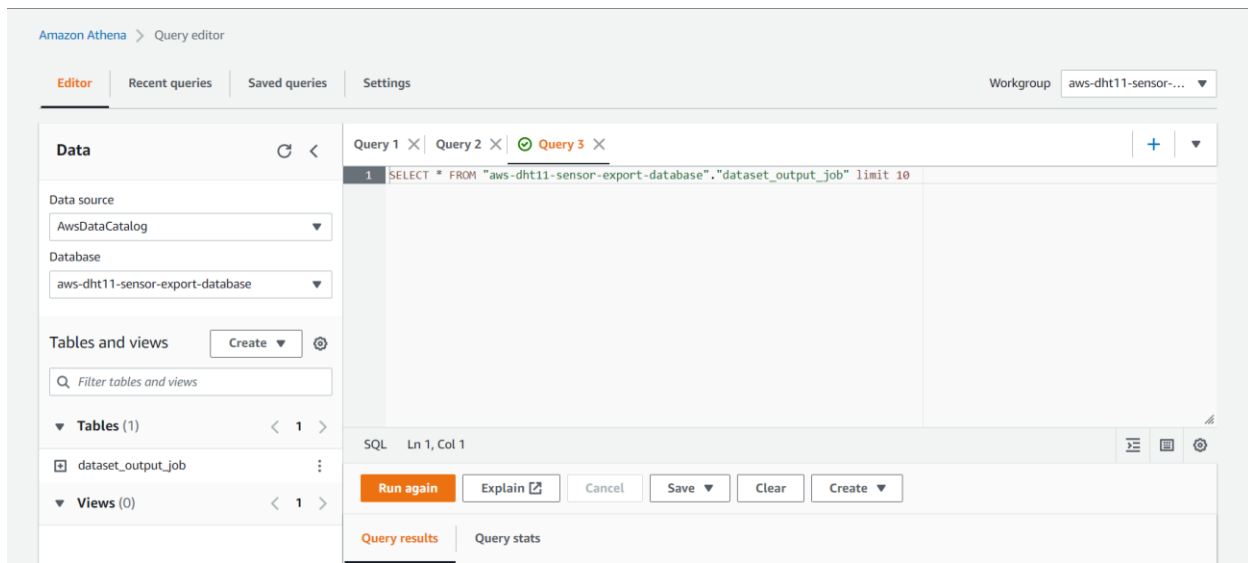
**Configuration options**

<b>Schema updates in the data store</b>	Update the table definition in the data catalog.
<b>Object deletion in the data store</b>	Mark the table as deprecated in the data catalog.

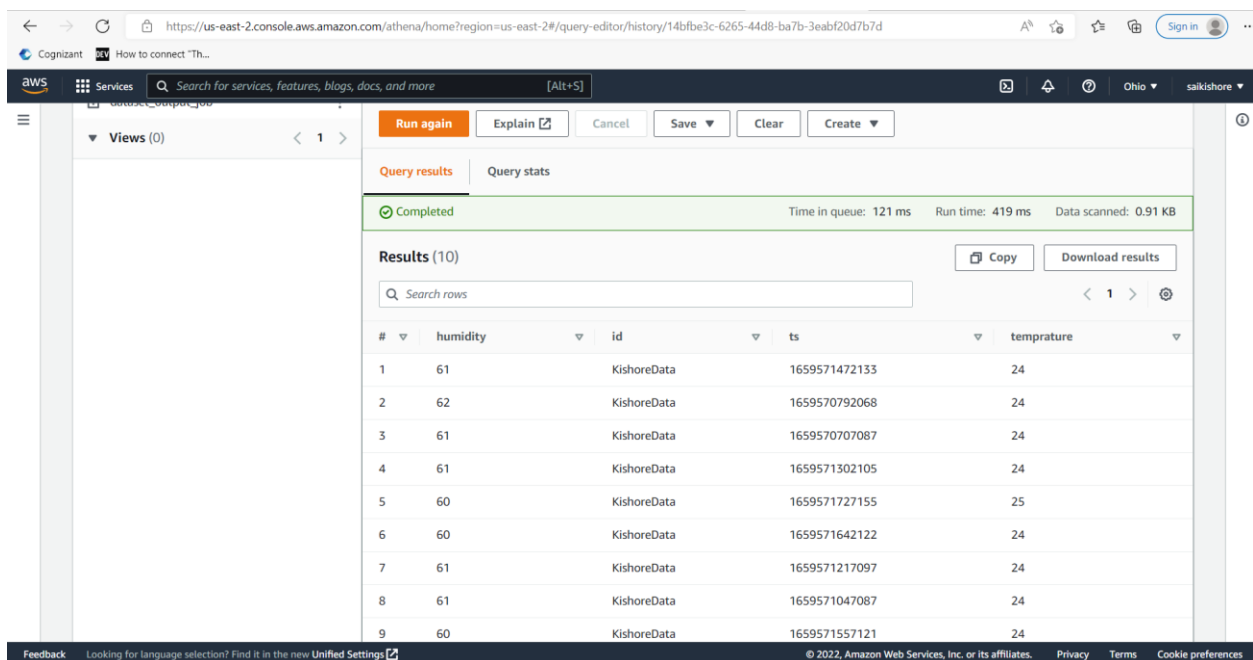
## WHAT IS ATHENA

Amazon Athena is an interactive query service that makes it easy to analyze data directly in Amazon Simple Storage Service (Amazon S3) using standard SQL. With a few actions in the AWS Management Console, you can point Athena at your data stored in Amazon S3 and begin using standard SQL to run ad-hoc queries and get results in seconds.

- Image of our data at Athena SQL service



- Image of data after running Athena query:



NOW using power bi I am extracting the data from Athena and visualizing the data

