**UNITY CATALOG EXERCISE (18-09-24)**

**PART 1**

**TASK 1**

Set up a Unity Catalog metastore - This will created in databricks catalog.

**TASK 2**

CREATE CATALOG marketing;

CREATE CATALOG engineering;

CREATE CATALOG operations;

**TASK 3**

-- Marketing

CREATE SCHEMA marketing\_data.ads\_data;

CREATE SCHEMA marketing\_data.customer\_data;

-- Engineering

CREATE SCHEMA engineering\_data.projects;

CREATE SCHEMA engineering\_data.development\_data;

-- Operations

CREATE SCHEMA operations\_data.logistics;

CREATE SCHEMA operations\_data.supply\_chain;

**Part 2:**

**TASK 4&5:**

-- Marketing ads\_data

CREATE TABLE marketing\_data.ads\_data.ads (

  ad\_id INT,

  impressions INT,

  clicks INT,

  cost\_per\_click FLOAT

);

INSERT INTO marketing\_data.ads\_data.ads

VALUES

  (1, 1000, 50, 0.75),

  (2, 1500, 75, 0.60),

  (3, 2000, 90, 0.85),

(4, 2500, 120, 0.80),

(5, 3000, 140, 0.90),

(6, 3500, 160, 0.70);

-- Engineering projects\_data

CREATE TABLE engineering\_data.projects.projects\_data (

  project\_id INT,

  project\_name STRING,

  start\_date DATE,

  end\_date DATE

);

INSERT INTO engineering\_data.projects.projects\_data

VALUES

  (101, 'Project Alpha', '2024-01-01', '2024-06-01'),

  (102, 'Project Beta', '2024-02-01', '2024-07-01'),

  (103, 'Project Gamma', '2024-03-01', '2024-08-01'),

(104, 'Project Delta', '2024-04-01', '2024-09-15'),

(105, 'Project Epsilon', '2024-05-01', '2024-10-31'),

(106, 'Project Zeta', '2024-06-01', NULL);

-- Operations logistics\_data

CREATE TABLE operations\_data.logistics.logistics\_data(

  shipment\_id INT,

  origin STRING,

  destination STRING,

  status STRING

);

INSERT INTO operations\_data.logistics.logistics\_data

VALUES

  (1001, 'New York', 'Los Angeles', 'In Transit'),

  (1002, 'Chicago', 'Houston', 'Delivered'),

  (1003, 'San Francisco', 'Seattle', 'Pending'),

(1004, 'Atlanta', 'Miami', 'Shipped'),

(1005, 'Denver', 'Portland', 'Out for Delivery'),

(1006, 'Las Vegas', 'Phoenix', 'Delayed');

**PART 3:**

**TASK 6:**

GRANT USAGE ON CATALOG marketing TO `marketing\_group`;

GRANT SELECT ON SCHEMA marketing\_data.ads\_data TO `marketing\_group`;

GRANT SELECT ON TABLE marketing\_data.ads\_data.ads TO `marketing\_group`;

**TASK 7:**

GRANT SELECT ON TABLE marketing\_data.ads\_data.ads TO `abcd@example.com`;

REVOKE SELECT ON TABLE engineering\_data.projects.projects\_data FROM `efgh@example.com`;

GRANT ALL PRIVILEGES ON TABLE operations\_data.logistics.logistics\_data TO `ijkl@example.com`;

**TASK 8:**

Navigate to the databricks UI to Catalog Explorer to check the lineage of the tables we created

**TASK 9:**

In the Admin Console, we can view the Audit logs for the operations performed.

**TASK 10:**

DESCRIBE TABLE marketing\_data.ads\_data.ads;

COMMENT ON TABLE marketing\_data.ads\_data.ads IS 'Stores ad data for marketing department';