**SQL SCRIPTS**

-- Create the Aircraft table to store information about aircraft models, their manufacturers, and fuel efficiency.

CREATE TABLE Aircraft (

AircraftID INT PRIMARY KEY, -- Unique identifier for each aircraft.

Model VARCHAR(255), -- Name of the aircraft model.

Manufacturer VARCHAR(255), -- Name of the aircraft manufacturer.

FuelEfficiency FLOAT -- Fuel efficiency of the aircraft (e.g., fuel consumption per km).

);

-- Create the Routes table to store flight route information including origin, destination, and distance.

CREATE TABLE Routes (

RouteID INT PRIMARY KEY, -- Unique identifier for each route.

Origin VARCHAR(255), -- Starting point of the route.

Destination VARCHAR(255), -- Endpoint of the route.

Distance FLOAT -- Distance of the route in kilometers.

);

-- Create the Emissions table to record carbon emissions for different aircraft models in 2019 and 2024, along with fuel usage.

CREATE TABLE Emissions (

aircraft\_model VARCHAR(255), -- Aircraft model (e.g., Boeing 737).

emission\_2019 FLOAT, -- Emission rate in 2019 (e.g., kg CO2 per km).

emission\_2024 FLOAT, -- Emission rate in 2024 (e.g., kg CO2 per km).

FuelUsed FLOAT -- Amount of fuel used in liters or relevant units.

);

-- Insert data into the Aircraft table with sample values for a Fokker 70 aircraft.

INSERT INTO Aircraft(AircraftID, Model, Manufacturer, FuelEfficiency)

VALUES('70', 'Regional Jet', 'Fokker', '0.3');

-- Insert data into the Routes table for a route from Malindi to Kakamega.

INSERT INTO Routes (RouteID, Origin, Destination, Distance)

VALUES ('105', 'Malindi', 'Kakamega', '560');

-- Select all records from the Routes table and order them by distance in ascending order.

SELECT \* FROM Routes

ORDER BY Distance ASC;

-- Select all records from the Aircraft table and order them by fuel efficiency in ascending order.

SELECT \* FROM Aircraft

ORDER BY FuelEfficiency ASC;

-- Insert emissions data into the Emissions table for various aircraft models, recording their emissions in 2019 and 2024, along with fuel used.

INSERT INTO Emissions (aircraft\_model, emission\_2019, emission\_2024, fuelUsed) VALUES

('Boeing 737', 0.095, 0.090, 1680), -- Emissions for Boeing 737 in 2019 and 2024, with fuel usage.

('Boeing 787 Dreamliner', 0.072, 0.068, 1825), -- Emissions for Boeing 787 Dreamliner in 2019 and 2024, with fuel usage.

('Airbus A380', 0.090, 0.085, 2100), -- Emissions for Airbus A380 in 2019 and 2024, with fuel usage.

('Fokker 70', 0.165, 0.160, 1000), -- Emissions for Fokker 70 in 2019 and 2024, with fuel usage.

('Embraer E190', 0.125, 0.120, 1320); -- Emissions for Embraer E190 in 2019 and 2024, with fuel usage.

-- Select all records from the Emissions table.

SELECT \* FROM Emissions;