**SQL QUERIES:**

-- SQL Query to create and import data from csv files:

-- 0. Create a database

CREATE DATABASE ccdb;

-- 1. Create cc\_detail table

CREATE TABLE cc\_detail (

Client\_Num INT,

Card\_Category VARCHAR(20),

Annual\_Fees INT,

Activation\_30\_Days INT,

Customer\_Acq\_Cost INT,

Week\_Start\_Date DATE,

Week\_Num VARCHAR(20),

Qtr VARCHAR(10),

current\_year INT,

Credit\_Limit DECIMAL(10,2),

Total\_Revolving\_Bal INT,

Total\_Trans\_Amt INT,

Total\_Trans\_Ct INT,

Avg\_Utilization\_Ratio DECIMAL(10,3),

Use\_Chip VARCHAR(10),

Exp\_Type VARCHAR(50),

Interest\_Earned DECIMAL(10,3),

Delinquent\_Acc VARCHAR(5)

);

-- 2. Create cc\_detail table

CREATE TABLE cust\_detail (

Client\_Num INT,

Customer\_Age INT,

Gender VARCHAR(5),

Dependent\_Count INT,

Education\_Level VARCHAR(50),

Marital\_Status VARCHAR(20),

State\_cd VARCHAR(50),

Zipcode VARCHAR(20),

Car\_Owner VARCHAR(5),

House\_Owner VARCHAR(5),

Personal\_Loan VARCHAR(5),

Contact VARCHAR(50),

Customer\_Job VARCHAR(50),

Income INT,

Cust\_Satisfaction\_Score INT

);

-- 3. Copy csv data into SQL (remember to update the file name and file location in below query)

-- copy cc\_detail table

COPY cc\_detail

FROM 'D:\credit\_card.csv'

DELIMITER ','

CSV HEADER;

-- copy cust\_detail table

COPY cust\_detail

FROM 'D:\customer.csv'

DELIMITER ','

CSV HEADER;

-- If you are getting below error, then use the below point:

-- ERROR: date/time field value out of range: "0"

-- HINT: Perhaps you need a different "datestyle" setting.

-- Check the Data in Your CSV File: Ensure date column values are formatted correctly and are in a valid format that PostgreSQL can recognize (e.g., YYYY-MM-DD). And correct any incorrect or missing date values in the CSV file.

-- or

-- Update the Datestyle Setting: Set the datestyle explicitly for your session using the following command:

SET datestyle TO 'ISO, DMY';

-- Now, try to COPY the csv files!

-- 4. Insert additional data into SQL, using same COPY function

-- copy additional data (week-53) in cc\_detail table

COPY cc\_detail

FROM 'D:\cc\_add.csv'

DELIMITER ','

CSV HEADER;

-- copy additional data (week-53) in cust\_detail table (remember to update the file name and file location in below query)

COPY cust\_detail

FROM 'D:\cust\_add.csv'

DELIMITER ','

CSV HEADER;

DAX QUERIES OF POWER BI

AgeGroup = SWITCH(

TRUE(),

'public cust\_detail'[customer\_age] < 30, "20-30",

'public cust\_detail'[customer\_age] >= 30 && 'public cust\_detail'[customer\_age] < 40, "30-40",

'public cust\_detail'[customer\_age] >= 40 && 'public cust\_detail'[customer\_age] < 50, "40-50",

'public cust\_detail'[customer\_age] >= 50 && 'public cust\_detail'[customer\_age] < 60, "50-60",

'public cust\_detail'[customer\_age] >= 60, "60+",

"unknown"

)

IncomeGroup = SWITCH(

TRUE(),

'public cust\_detail'[income] < 35000, "Low",

'public cust\_detail'[income] >= 35000 && 'public cust\_detail'[income] <70000, "Med",

'public cust\_detail'[income] >= 70000, "High",

"unknown"

)

week\_num2 = WEEKNUM('public cc\_detail'[week\_start\_date])

Revenue = 'public cc\_detail'[annual\_fees] + 'public cc\_detail'[total\_trans\_amt] + 'public cc\_detail'[interest\_earned]

Current\_week\_Reveneue = CALCULATE(

SUM('public cc\_detail'[Revenue]),

FILTER(

ALL('public cc\_detail'),

'public cc\_detail'[week\_num2] = MAX('public cc\_detail'[week\_num2])))

Previous\_week\_Reveneue = CALCULATE(

SUM('public cc\_detail'[Revenue]),

FILTER(

ALL('public cc\_detail'),

'public cc\_detail'[week\_num2] = MAX('public cc\_detail'[week\_num2])-1))