**Task Overview**

**1. Review Both CSV Files with Excel**

* Open and review the two CSV files to ensure they contain the necessary data for processing.

**2. Launch SQL and Create the Database (ccdb)**

Using Microsoft SQL Server Management Studio, execute the following SQL query to create the database ccdb:

sql

CopyEdit

CREATE DATABASE ccdb;

**3. Creating Table cc\_detail in the Database**

Use the following SQL query to create the cc\_detail table in the ccdb database:

sql

CopyEdit

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(5),

current\_year INT,

Credit\_Limit DECIMAL(10,2),

Total\_Revolving\_Bal INT,

Total\_Trans\_Amt INT,

Total\_Trans\_Vol INT,

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

Use\_Chip VARCHAR(20),

Exp\_Type VARCHAR(50),

Interest\_Earned DECIMAL(10,3),

Delinquent\_Acc INT

);

**4. Creating Table cust\_detail in the Database**

Use the following SQL query to create the cust\_detail table in the ccdb database:

sql

CopyEdit

CREATE TABLE cust\_details (

Client\_Num INT,

Customer\_Age INT,

Gender VARCHAR(5),

Dependent\_Count INT,

Education\_Level VARCHAR(50),

Marital\_Status VARCHAR(20),

state\_cd VARCHAR(5),

Zipcode INT,

Car\_Owner VARCHAR(5),

House\_Owner VARCHAR(5),

Personal\_loan VARCHAR(5),

contact VARCHAR(20),

Customer\_Job VARCHAR(50),

Income INT,

Cust\_Satisfaction\_Score INT

);

**5. Importing Data from CSV to SQL Using BULK INSERT**

To import data from the CSV files into the respective tables, use the following BULK INSERT commands:

For cc\_detail table:

sql

CopyEdit

BULK INSERT cc\_detail

FROM 'C:\Users\krish\OneDrive\Desktop\PowerBI Daily Project\Credit Card Financial Dashboard\credit\_card.CSV'

WITH (

FORMAT = 'CSV',

FIRSTROW = 2,

FIELDTERMINATOR = ',',

ROWTERMINATOR = '\n',

TABLOCK

);

For cust\_detail table:

sql

CopyEdit

BULK INSERT cust\_detail

FROM 'C:\Users\krish\OneDrive\Desktop\PowerBI Daily Project\Credit Card Financial Dashboard\customer.CSV'

WITH (

FIRSTROW = 2,

FIELDTERMINATOR = ',',

ROWTERMINATOR = '\n',

TEXTQUALIFIER = '"',

TABLOCK,

MAXERRORS = 100

);

**6. Clean Up the Data Using SQL Query**

Use appropriate SQL queries to clean up the data (e.g., removing duplicates, handling NULL values, correcting data types).

**7. Connect SQL Database with Power BI**

Connect your ccdb database with Power BI to visualize and analyze the data.

**8. Group Customer Age Using DAX**

Create a new calculated column to group customers by age:

dax

CopyEdit

AgeGroup = SWITCH(TRUE(),

cust\_details[Customer\_Age] < 30, "20-30",

cust\_details[Customer\_Age] >=30 && cust\_details[Customer\_Age] < 40, "30-40",

cust\_details[Customer\_Age] >=40 && cust\_details[Customer\_Age] < 50, "40-50",

cust\_details[Customer\_Age] >=50 && cust\_details[Customer\_Age] < 60, "50-60",

cust\_details[Customer\_Age] >=60, "60+",

"unknown"

)

**9. Group Salary Using DAX**

Create a new calculated column to group customers by income:

dax

CopyEdit

IncomeGroup = SWITCH(TRUE(),

cust\_details[Income] < 35000, "LOW",

cust\_details[Income] >= 35000 && cust\_details[Income] < 70000, "MED",

cust\_details[Income] >= 70000, "HIG",

"Unknown"

)

**10. Calculate Revenue Using DAX**

Create a new measure to calculate the revenue for the cc\_detail table:

dax

CopyEdit

Revenue = cc\_detail[Annual\_Fees] + cc\_detail[Total\_Trans\_Amt] + cc\_detail[Interest\_Earned]

**11. Create Stacked Chart for Card Category with Sum of Revenue**

Create a stacked chart in Power BI to show the sum of revenue for each card category.

**12. Sort Week Number Using DAX**

Create a new calculated column to sort the week number:

dax

CopyEdit

Week\_num2 = WEEKNUM(cc\_detail[Week\_Start\_Date])

**13. Measure for Current Week Revenue Using DAX**

Create a measure to calculate the current week revenue:

dax

CopyEdit

Current\_week\_Revenue = CALCULATE(SUM(cc\_detail[Revenue]), FILTER(ALL(cc\_detail), cc\_detail[Week\_num2] = MAX(cc\_detail[Week\_num2])))

**14. Measure for Previous Week Revenue Using DAX**

Create a measure to calculate the previous week revenue:

dax

CopyEdit

Previous\_week\_Revenue = CALCULATE(SUM(cc\_detail[Revenue]), FILTER(ALL(cc\_detail), cc\_detail[Week\_num2] = MAX(cc\_detail[Week\_num2]) - 1))

**15. Measure for Week-on-Week Revenue Using DAX**

Create a measure to calculate the week-on-week revenue percentage:

dax

CopyEdit

WOW\_Revenue = DIVIDE(([Current\_week\_Revenue] - [Previous\_week\_Revenue]), [Previous\_week\_Revenue])

**16. Compare Revenue for the Top or Latest 5 Weeks**

Create a table in Power BI to compare the revenue for the top 5 weeks, using the WOW\_Revenue measure to track week-over-week changes.