**SQL queries used throught the assignment**

CREATE DATABASE Radi8labs;

USE Radi8labs;

Radi8labs -> Tables -> Table data Import wizard->(Select given datasets given in the assignment,ie bank\_statementand analyzebankstatement )

**Tranforming the given bank\_statement table**

-- selects all columns and rows from the bank\_statement table.

SELECT \* FROM bank\_statement;

--add new column Tx Mode

ALTER TABLE bank\_statement

ADD `Tx Mode` varchar(50);

--updates all rows in the Txn Mode column and sets their values to 'Bank

UPDATE bank\_statement SET `Txn Mode` = 'Bank';

ALTER TABLE bank\_statement

--drops the column Balance from the bank\_statement table

DROP COLUMN Balance;

--Arranging columns

--creates a new table temp\_bank\_statement and copies specific columns from the bank\_statement table to the new table.

CREATE TABLE temp\_bank\_statement AS

SELECT `Txn Date`, `Value Date`, `Description`, Debit, Credit, `Tx Mode`,`Ref No./Cheque No.`

FROM bank\_statement;

--drops the bank\_statement table.

DROP TABLE bank\_statement;

--renames the table temp\_bank\_statement to bank\_statement

ALTER TABLE bank\_statement RENAME TO bank\_statement;

--shows names and data types of the columns in the bank\_statement table

DESCRIBE bank\_statement;

--converts the values in the Txn Date column from the format '09-Jan-2023' to '09-01-2023'.

UPDATE bank\_statement

SET `Txn Date` = DATE\_FORMAT(STR\_TO\_DATE(`Txn Date`, '%d-%b-%Y'), '%d-%m-%Y');

UPDATE bank\_statement

--converts the values in the Value Date column from the format '09-Jan-2023' to '09-01-2023'.

SET `Value Date` = DATE\_FORMAT(STR\_TO\_DATE(`Value Date`, '%d-%b-%Y'), '%d-%m-%Y');

--odifies the data types and lengths of specific columns in the bank\_statement table.

ALTER TABLE bank\_statement

MODIFY COLUMN `Txn Date` varchar(10),

MODIFY COLUMN `Value Date` varchar(10),

MODIFY COLUMN `Description` varchar(255),

MODIFY COLUMN Debit text,

MODIFY COLUMN Credit text,

MODIFY COLUMN `Ref No./Cheque No.` varchar(50);

**Tranforming the given analyzebankstatement table**

--selects all columns and rows from the analyzebankstatement table.

SELECT \* FROM analyzebankstatement;

--renames the column MyUnknownColumn to Tx Mode and changes its data type to VARCHAR(50)

CHANGE COLUMN MyUnknownColumn `Tx Mode` varchar(50);

updates all rows in the Tx Mode column and sets their values to 'Cash'.

UPDATE analyzebankstatement SET `Tx Mode` = 'Cash';

-- updates the Credit column and changes any negative values to Positive

UPDATE analyzebankstatement

SET Credit = ABS(Credit)

WHERE Credit < 0;

--renames the column Date to Tx Date and changes its data type to VARCHAR(10).

ALTER TABLE analyzebankstatement

CHANGE COLUMN `Date` `Tx Date` VARCHAR(10);

--updates the Tx Date column and replaces any occurrences of '2021' with '2023'.

UPDATE analyzebankstatement

SET `Tx Date` = REPLACE(`Tx Date`, '2021', '2023');

--adds a new column named Value Date with a data type of VARCHAR(50)

ALTER TABLE analyzebankstatement

ADD `Value Date` varchar(50);

--updatesValue Date column with the values from the Tx Date column.

UPDATE analyzebankstatement

SET `Value Date` = `Tx Date`;

--renames the column Tx Date to Txn Date

ALTER TABLE analyzebankstatement

CHANGE COLUMN `Tx Date` `Txn Date` VARCHAR(10);

--adds a new column named Description and updates the Description column by concatenating the values of Category and Vendor

ALTER TABLE analyzebankstatement

ADD `Description` VARCHAR(255);

UPDATE analyzebankstatement

SET Description = CONCAT(Category,'(Vendor : ',Category,')');

-- drops the columns Vendor and Category

ALTER TABLE analyzebankstatement

DROP COLUMN Vendor,

DROP COLUMN Category;

-- Create a temporary copy of the table with the desired column order

CREATE TABLE temp\_analyzebankstatement AS

SELECT `Txn Date`, `Value Date`, `Description`, Debit, Credit, `Tx Mode`

FROM analyzebankstatement;

-- Drop the original table

DROP TABLE analyzebankstatement;

--Rename the temporary table to the original table name

ALTER TABLE temp\_analyzebankstatement RENAME TO analyzebankstatement;

--Add the new column and Update all rows to set the value to 'null'

ALTER TABLE analyzebankstatement ADD `Ref No./Cheque No.` VARCHAR(50);

--inserts rows from the bank\_statement table into the analyzebankstatement table where the Description is 'ATM Withdrawal'. The --values for the Txn Date, Value Date, Description, Credit, and Debit columns are swapped, and the Tx Mode is set to 'Cash', --while the Ref No./Cheque No. column is set to NULL

UPDATE analyzebankstatement SET `Ref No./Cheque No.` = null;

INSERT INTO analyzebankstatement (`Txn Date`, `Value Date`, `Description`, Debit, Credit, `Tx Mode`, `Ref No./Cheque No.`)

SELECT `Txn Date`, `Value Date`, `Description`, Credit, Debit, 'Cash',null

FROM bank\_statement

WHERE Description = 'ATM Withdrawal';

--names and data types of the column

DESCRIBE analyzebankstatement;

**Appending bank\_statement table and analyzebankstatement table**

-- Create the new\_table with the same structure as table1 or table2

CREATE TABLE Transformed\_Table LIKE analyzebankstatement;

-- Append data from table1 to new\_table

INSERT INTO Transformed\_Table

SELECT \* FROM analyzebankstatement;

-- Append data from table2 to new\_table

INSERT INTO Transformed\_Table

SELECT \* FROM bank\_statement;