**LOAN PROJECT SQL QUERIES**

***DATASETS:***

* account.csv
* card.csv
* client.csv
* disp.csv
* district.csv
* loan.csv
* order.csv
* transaction\_data.csv

***EXPLORATORY DATA ANALYSIS(EDA):***

Counting the number of records in each table.

*Queries:*

select count(\*) from account

select count(\*) from card

select count(\*) from client

select count(\*) from disp

select count(\*) from district

select count(\*) from loan

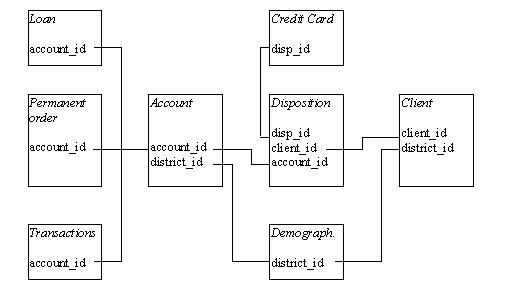
select count(\*) from [dbo].[order]

select count(\*) from transaction\_data

***SOLUTION APPROACH:***

In this project, the raw data is stored in the database and from there all the ETL functionalities has to be performed as follows.

*Datasets Entity Mapping:*



By the above-mentioned entity mapping, master table is to be created that takes into consideration all the related tables above mentioned. The client id is the common to all from which relationships can be built.

***DATA TRANSFORMATION:***

*Transaction Data and Loan Table:*

Joining the Transaction Data table and Loan table using inner join.

select \* into loan\_trans from (select td.\*,ln.loan\_id,ln.date loan\_date, ln.amount loan\_amount,ln.duration loan\_duration, ln.payments loan\_payments,ln.status loan\_status from loan ln join transaction\_data td on ln.account\_id = td.account\_id)A

Viewing the Merged Table.

Select \* from [dbo].[loan\_trans]

*Account and Orders Table:*

Joining the Account Table and Orders Table using inner join.

select \* into acc\_ord from (select o.\*,acc.date account\_date, acc.district\_id as account\_district\_id, acc.frequency as account\_frequency from account acc left join [dbo].[order] o on acc.account\_id = o.account\_id)B

Viewing the Merged Table.

select \* from [dbo].[acc\_ord]

*Card and Disposition Table:*

Joining the Card Table and Disposition Table by inner join.

select \* into card\_disp from (select card.\*, disp.account\_id disposition\_account\_id, disp.client\_id as disposition\_client\_id,

disp.type as disposition\_type from card card join disp disp on card.disp\_id = disp.disp\_id)C

Viewing the Merged Table.

select \* from [dbo].[card\_disp]

*Card-Disposition and Client Table:*

Joining the merged Card and Disposition Table with Client Table based on client id using inner join.

select \* into card\_disp\_client from (select \* from card\_disp cd join client c on cd.disposition\_client\_id = c.client\_id)D

Viewing the Merged Table.

select \* from card\_disp\_client

*Card-Disposition-Client and District Table:*

Joining the merged Card, Disposition and Client Table with District Table based on district id using inner join.

select \* into card\_disp\_client\_dist from (select \* from card\_disp\_client cdc join district dist on cdc.district\_id = dist.A1)E

Viewing the Merged Table.

select \* from card\_disp\_client\_dist

*Account-Order and Card-Disposition-Client-District Table:*

Joining the merged Account and Order Table with merged Card, Disposition, Client and District Table based on account id by left join.

select \* into acc\_ord\_card\_disp\_client\_dist from (select cdcd.\*,ao.order\_id,ao.bank\_to,ao.account\_to,ao.amount,ao.k\_symbol,ao.account\_date,ao.account\_district\_id,ao.account\_frequency from acc\_ord ao left join card\_disp\_client\_dist cdcd on ao.account\_id = cdcd.disposition\_account\_id)F

Viewing the Merged Table.

select \* from [dbo].[acc\_ord\_card\_disp\_client\_dist]

*Master Table:*

Joining and Viewing the merged Account, Order Card, Disposition, Client, District with merged Transaction Data Table and Loan Table using inner join.

select \* from acc\_ord\_card\_disp\_client\_dist aocdcd join loan\_trans lt on lt.account\_id= aocdcd.disposition\_account\_id