Loan Project SQL Queries

*DATASETS:*

* account.csv
* card.csv
* client.csv
* disp.csv
* district.csv
* loan.csv
* order.csv

*EXPLORATORY DATA ANALYSIS (EDA):*

Counting the number of records in each table.

*Queries:*

select Count (\*) from [dbo].[account]

select Count (\*) from [dbo].[card]

select Count (\*) from [dbo].[client]

select Count (\*) from [dbo].[disp]

select Count (\*) from [dbo].[district]

select Count (\*) from [dbo].[loan]

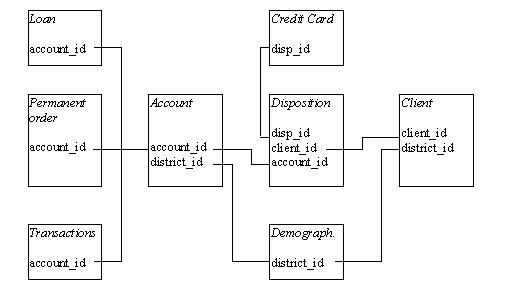
select Count (\*) from [dbo].[order]

select Count (\*) from [dbo].[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 as loan\_date,ln.amount as loan\_amount, ln.duration as loan\_duration,ln.payments as loan\_payments,ln.status as loan\_status from loan ln join transaction\_data td on ln.account\_id = td.account\_id)A;

Viewing the Merged Table:

select \* from loan\_trans

*Account and Order Table:*

Joining the Account Table and Orders Table using Inner Joins.

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

Viewing the Merged Table:

Select \* from 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,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 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\_clent 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.frequency from acc\_ord ao left join card\_disp\_client\_dist cdcd on ao.account\_id=cdcd.account\_id)F;

Viewing the Merged Table:

Select \* from 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 Joins.

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