SQL PROJECT DOCUMENTATION

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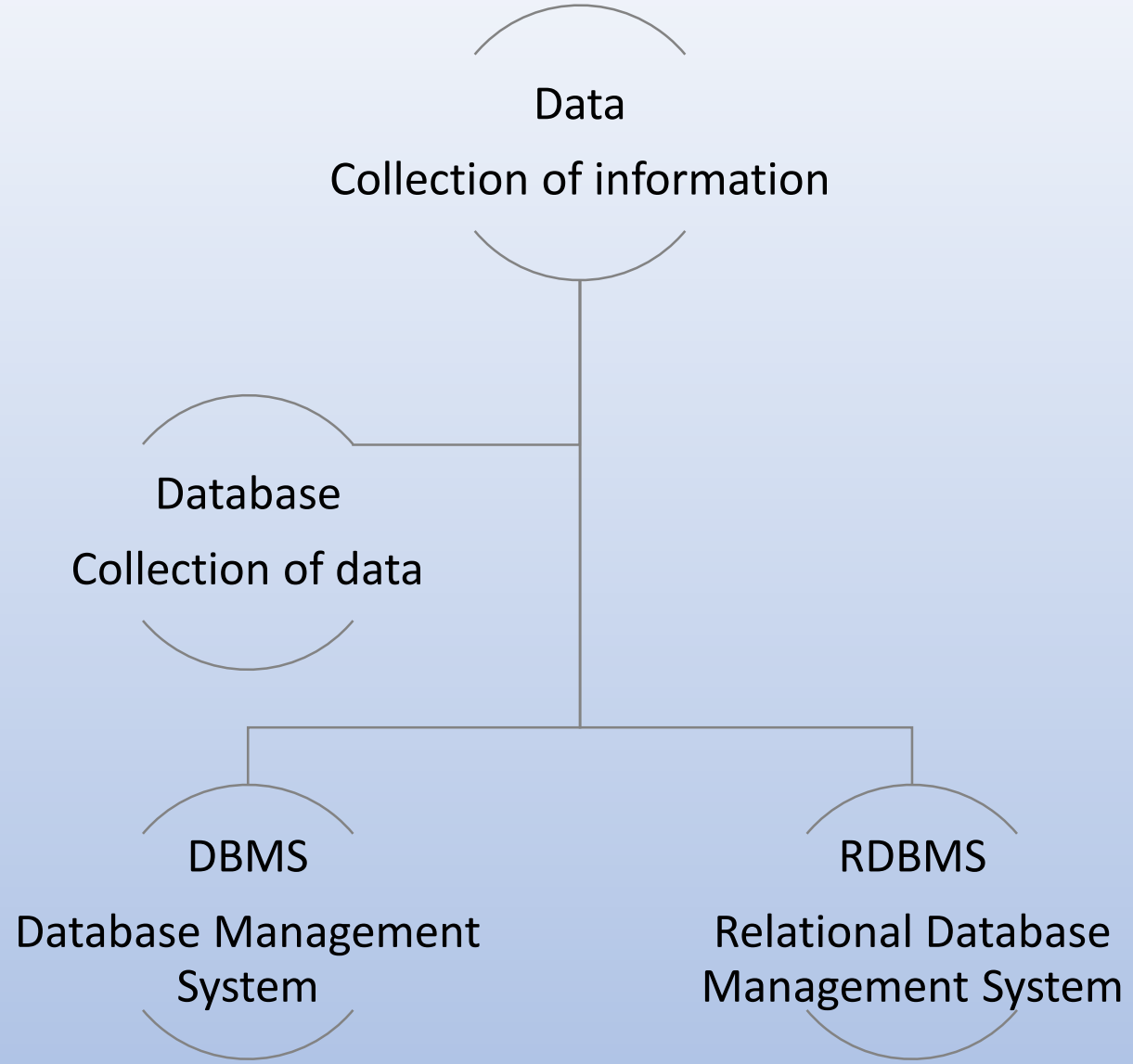
SQL

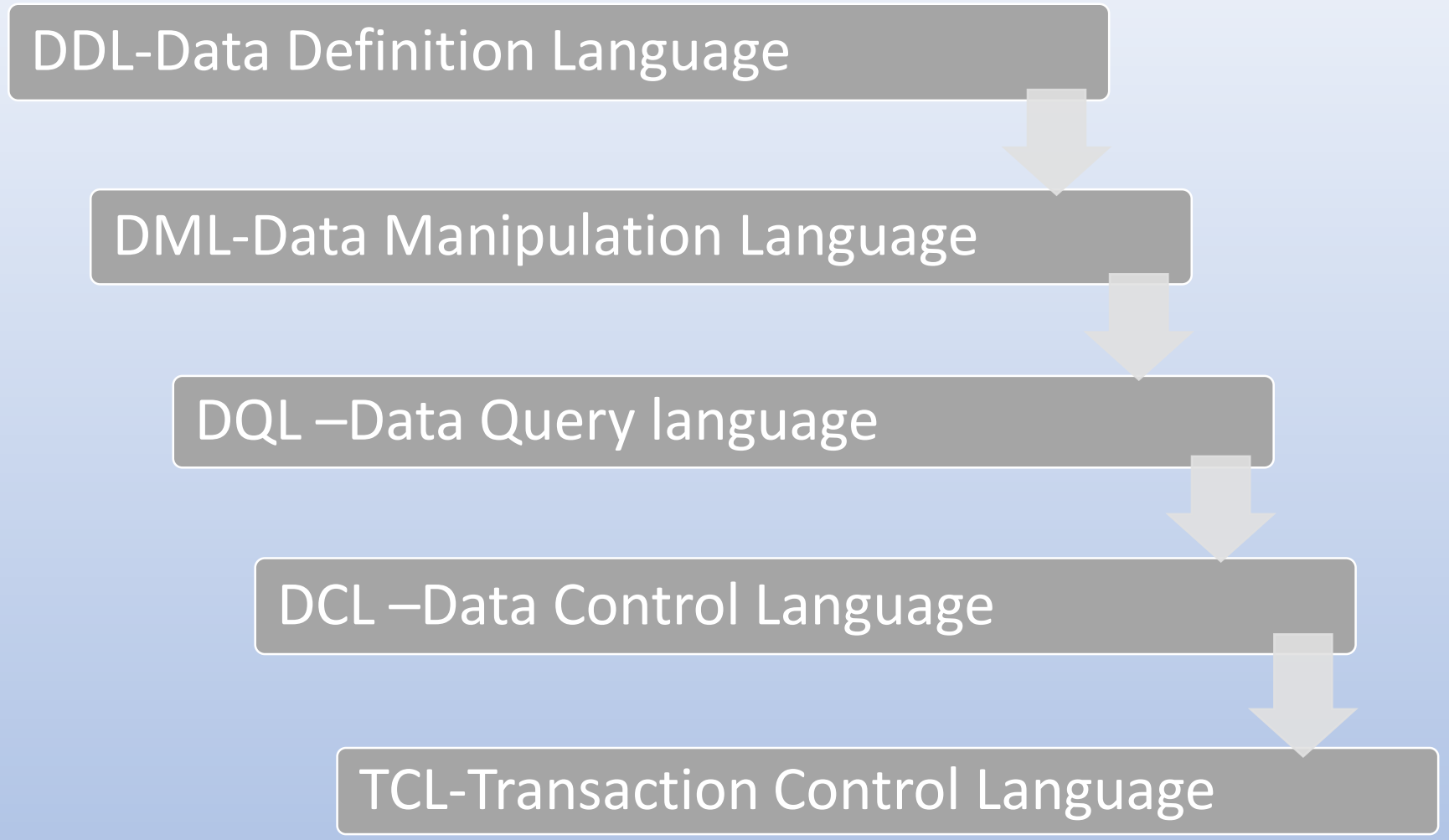
SQL stand for Structured Query Language. It allows users to efficiently store, retrieve, update, and delete data in database.

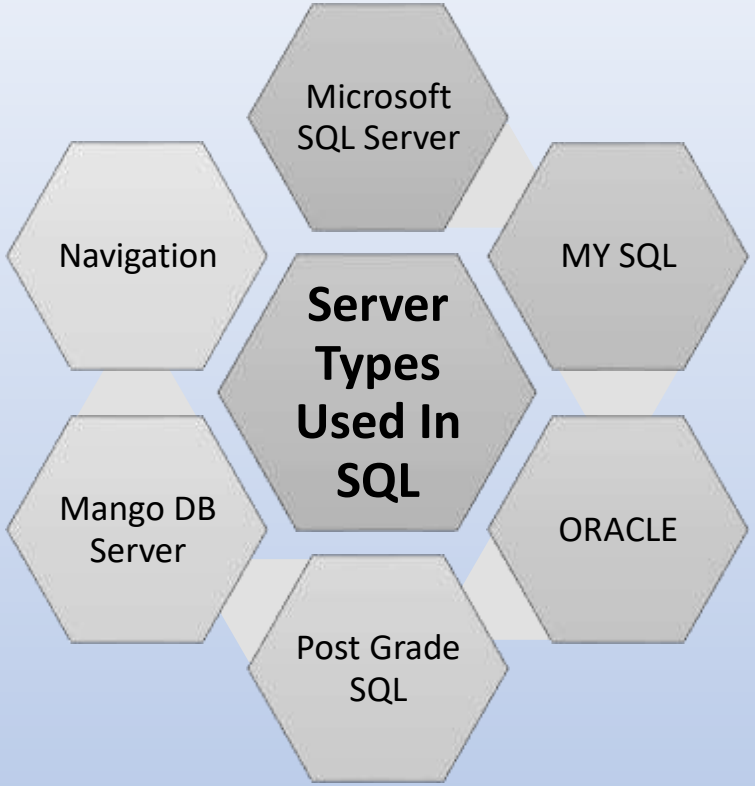
Key Features of SQL

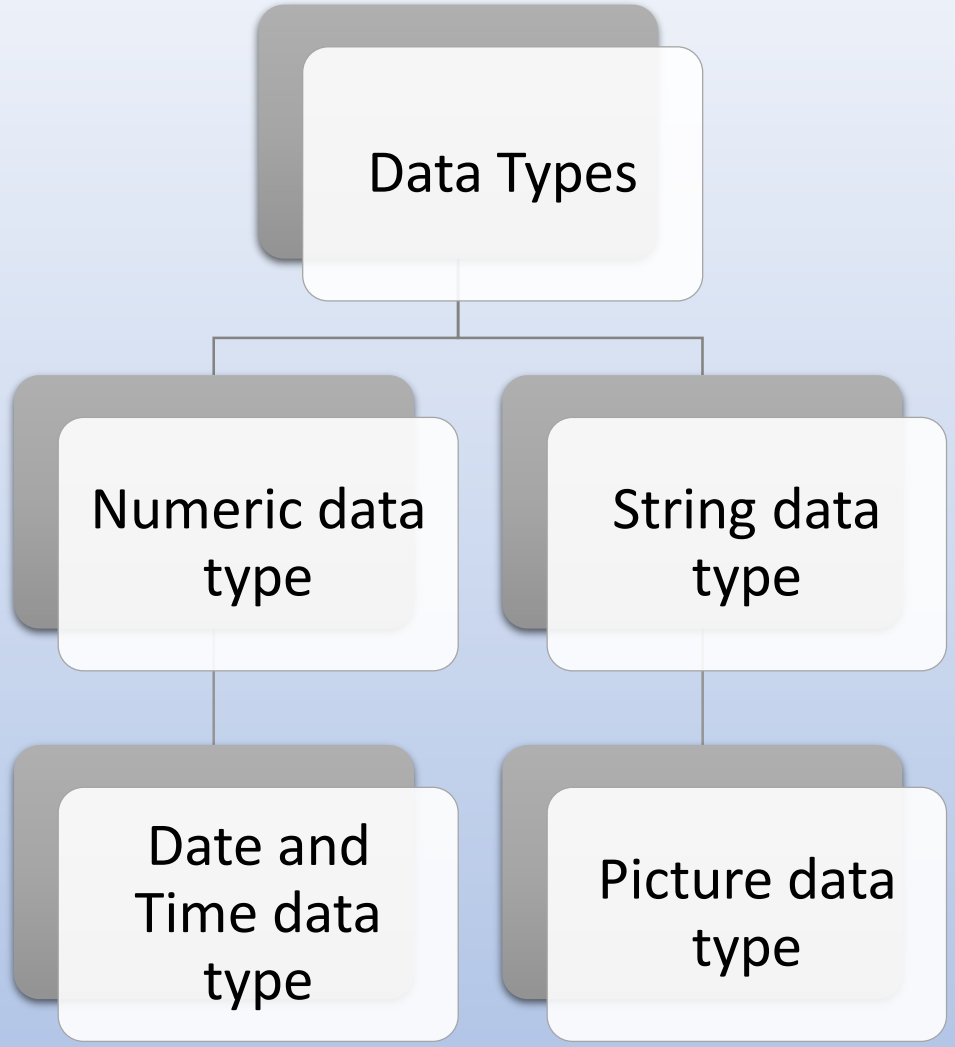
- Executing queries against a database
- Retrieving data from a database
- Inserting records into a database
- Updating records in a database
- Deleting records from a database
- Creating new databases and tables
- Creating stored procedures and views
- Setting permissions on tables, procedures


Data
Collection of information
Database
Collection of data
DBMS
Database Management System
RDBMS
Relational Database Management System

SQL Statements




Server Types Used In SQL
Microsoft SQL Server
MY SQL
ORACLE
Post Grade SQL
Mango DB Server
Navigation


Data Types
Numeric data type
String data type
Date and Time data type
Picture data type

LOAN MANAGEMENT SYSTEM

Project Summary

- To Create a Loan customer details based on given data sets .
- Create a database project .
- Analysis the given data and import the data's in the created database.
- Set Primary key for the unique values in the table.
- Set customers criteria based on the applicant income status and the property area where the customers are stayed and create a table named applicant income grades.
- Then create a row level trigger and statement level trigger Using loan status table to find the customers who are not loan approved customers and rejected customers and delete the customers and create a table for the remaining customers .
- Then join the customers table and loan amount table to find the monthly interest and annual interest with the monthly interest percentage and create a new table.

- In the customer info table update gender and age with the customer id in the table.
- Inner join the country state and region info table to set the region for the customers.
- Create a foreign key constraint using details of loan customer to connect the related tables.
- Get a ER Diagram in reverse engineer in to know the connectivity of the tables.
- Then With the Extracted five tables Find the outputs .
- Inner join the created tables a to get the full customer details without repeating the column again and show it as a output 1 .
- Then find the mismatching values in the table and extract the null value from the table as output 2.
- Inner join the created table and extract the customers with the high cibil score.
- Extract the customers from the home office and corporate from the output 1.
- Then store all the output in Procedure and call whenever we need the data.

Data Set

1. customer income status

Loan_ID	Customer ID	ApplicantIncome	CoapplicantIncome	Property_Area	Loan_Status
LP001002	IP43001	5849	0	Urban	Y
LP001003	IP43002	4583	1508	Rural	N
LP001005	IP43003	3000	0	Urban	Y
LP001006	IP43004	2583	2358	Urban	Y
LP001008	IP43005	6000	0	Urban	Y
LP001011	IP43006	5417	4196	Urban	Y
LP001013	IP43007	2333	1516	Urban	Y
LP001014	IP43008	3036	2504	Semiurban	N
LP001018	IP43009	4006	1526	Urban	Y
LP001020	IP43010	12841	10968	Semiurban	N
LP001024	IP43011	3200	700	Urban	Y
LP001027	IP43012	2500	1840	Urban	Y
LP001028	IP43013	3073	8106	Urban	Y
LP001029	IP43014	1853	2840	Rural	N
LP001030	IP43015	1299	1086	Urban	Y
LP001032	IP43016	4950	0	Urban	Y
LP001034	IP43017	3596	0	Urban	Y

2. loan status

A	B	C	D	E
Loan_ID	Custom	LoanAmour	Loan_Amount_Ter	Cibil Score
LP001002	IP43001	Null	360	303
LP001003	IP43002	128	360	920
LP001005	IP43003	66	360	606
LP001006	IP43004	120	360	851
LP001008	IP43005	141	360	420
LP001011	IP43006	267	360	173
LP001013	IP43007	95	360	650
LP001014	IP43008	158	360	471
LP001018	IP43009	168	360	863
LP001020	IP43010	349	360	730
LP001024	IP43011	70	360	143
LP001027	IP43012	109	360	384
LP001028	IP43013	200	360	928
LP001029	IP43014	114	360	455
LP001030	IP43015	17	120	564
LP001032	IP43016	125	360	477
LP001034	IP43017	100	240	888
LP001036	IP43018	76	360	387
LP001038	IP43019	133	360	371

3.customer info

A	B	C	D	E	F	G	H	I
Customer ID	**Customer_name**	**Gender**	**Age**	**Married**	**Education**	**Self_Employed**	**Loan_Id**	**Region_id**
IP43001	Claire Gute	Male	50	No	Graduate	No	LP001002	13.2
IP43002	Darrin Van Huff	Male	66	Yes	Graduate	No	LP001003	13.2
IP43003	Sean O'Donnell	Male	20	Yes	Graduate	Yes	LP001005	13.2
IP43004	Brosina Hoffman	Male	46	Yes	Not Graduate	No	LP001006	13.2
IP43005	Andrew Allen	Male	18	No	Graduate	No	LP001008	13.2
IP43006	Irene Maddox	Male	66	Yes	Graduate	Yes	LP001011	13.2
IP43007	Harold Pawlan	Male	67	Yes	Not Graduate	No	LP001013	13.3
IP43008	Pete Kriz	Male	41	Yes	Graduate	No	LP001014	13.3
IP43009	Alejandro Grove	Male	34	Yes	Graduate	No	LP001018	13.2
IP43010	Zuschuss Donatelli	Male	21	Yes	Graduate	No	LP001020	13.2
IP43011	Ken Black	Male	48	Yes	Graduate	No	LP001024	13.3
IP43012	Sandra Flanagan	Male	19	Yes	Graduate	Null	LP001027	13.4
IP43013	Emily Burns	Male	28	Yes	Graduate	No	LP001028	13.2
IP43014	Eric Hoffmann	Male	46	No	Graduate	No	LP001029	13.2
IP43015	Tracy Blumstein	Male	31	Yes	Graduate	No	LP001030	13.4
IP43016	Matt Abelman	Male	51	No	Graduate	No	LP001032	13.3

4. country state

Customer_	Load Id	Customer_name	Region_id	Postal_Code	Segment	State
IP43001	LP001002	Claire Gute	13.2	42420	Consumer	Kentucky
IP43002	LP001003	Darrin Van Huff	13.2	90036	Corporate	California
IP43003	LP001005	Sean O'Donnell	13.2	33311	Consumer	Florida
IP43004	LP001006	Brosina Hoffman	13.2	90032	Consumer	California
IP43005	LP001008	Andrew Allen	13.2	28027	Consumer	North Carolina
IP43006	LP001011	Irene Maddox	13.2	98103	Consumer	Washington
IP43007	LP001013	Harold Pawlan	13.3	76106	Home Office	Texas
IP43008	LP001014	Pete Kriz	13.3	53711	Consumer	Wisconsin
IP43009	LP001018	Alejandro Grove	13.2	84084	Consumer	Utah
IP43010	LP001020	Zuschuss Donatelli	13.2	94109	Consumer	California
IP43011	LP001024	Ken Black	13.3	68025	Corporate	Nebraska
IP43012	LP001027	Sandra Flanagan	13.4	19140	Consumer	Pennsylvania
IP43013	LP001028	Emily Burns	13.2	84057	Consumer	Utah
IP43014	LP001029	Eric Hoffmann	13.2	90049	Consumer	California
IP43015	LP001030	Tracy Blumstein	13.4	19140	Consumer	Pennsylvania
IP43016	LP001032	Matt Abelman	13.3	77095	Home Office	Texas

5. region info

	A	B
1	Region	Region_Id
2	South	13.1
3	West	13.2
4	North	13.3
5	East	13.4

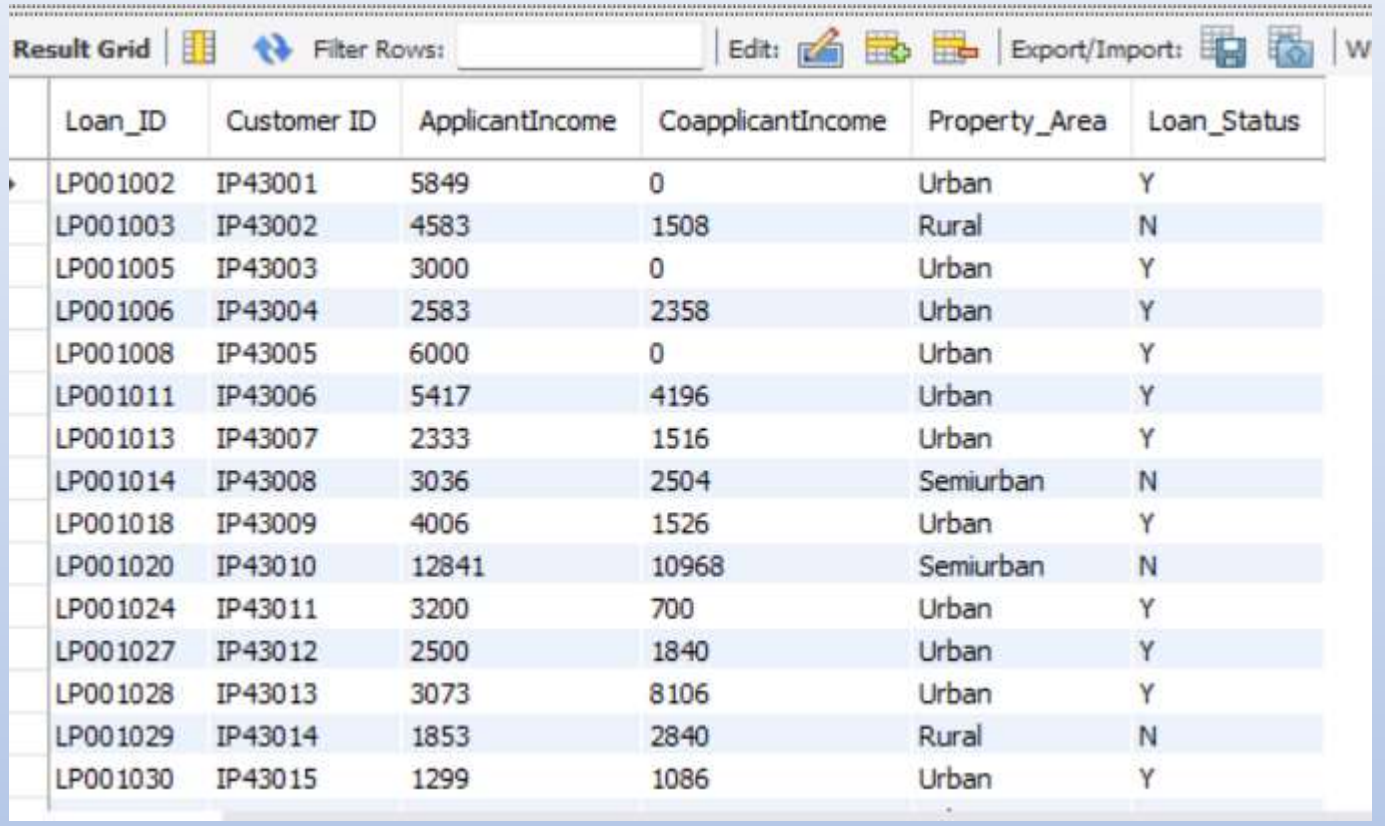
Using Transaction Control language to roll back the value which is mistakenly deleted or to save the value.

```
use project;


-- transaction control language
set autocommit = off;

start transaction;
```

Creating database project as database name and using the database

```
create database project;
use project;
```

Importing the data set customer income and set criteria and create a table

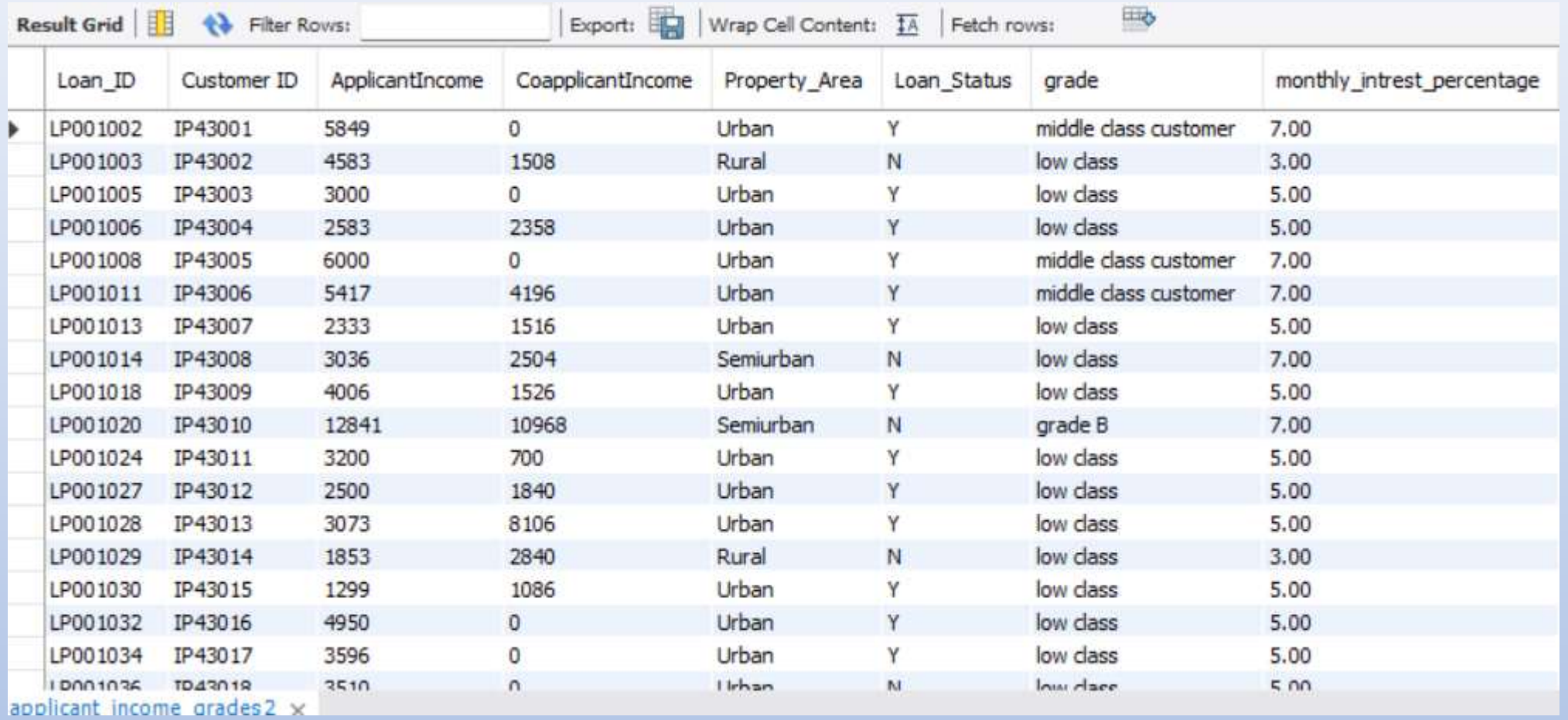

Result Grid | Filter Rows: | Edit: | Export/Import: | W

Loan_ID	Customer ID	ApplicantIncome	CoapplicantIncome	Property_Area	Loan_Status
LP001002	IP43001	5849	0	Urban	Y
LP001003	IP43002	4583	1508	Rural	N
LP001005	IP43003	3000	0	Urban	Y
LP001006	IP43004	2583	2358	Urban	Y
LP001008	IP43005	6000	0	Urban	Y
LP001011	IP43006	5417	4196	Urban	Y
LP001013	IP43007	2333	1516	Urban	Y
LP001014	IP43008	3036	2504	Semiurban	N
LP001018	IP43009	4006	1526	Urban	Y
LP001020	IP43010	12841	10968	Semiurban	N
LP001024	IP43011	3200	700	Urban	Y
LP001027	IP43012	2500	1840	Urban	Y
LP001028	IP43013	3073	8106	Urban	Y
LP001029	IP43014	1853	2840	Rural	N
LP001030	IP43015	1299	1086	Urban	Y

Code to Set Criteria:

```
select * from customer_income;
alter table customer_income add primary key(loan_id(10));
create table applicant_income_grades as select *,
case
when applicantincome>15000 then 'Grade A'
when applicantincome>9000 then 'grade B'
when applicantincome>5000 then 'middle class customer'
else 'low class'
end as grade,
case
when applicantincome<5000 and property_area='rural' then '3'
when applicantincome<5000 and property_area='semi_rural' then '3.5'
when applicantincome<5000 and property_area='urban' then '5'
when applicantincome<5000 and property_area='semi_urban' then '2.5'
else '7'
end as monthly_intrest_percentage
from customer_income;
select * from applicant_income_grades;
alter table applicant_income_grades  modify monthly_intrest_percentage decimal(5,2);
```

Table 1 – Customer Loan Status



Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

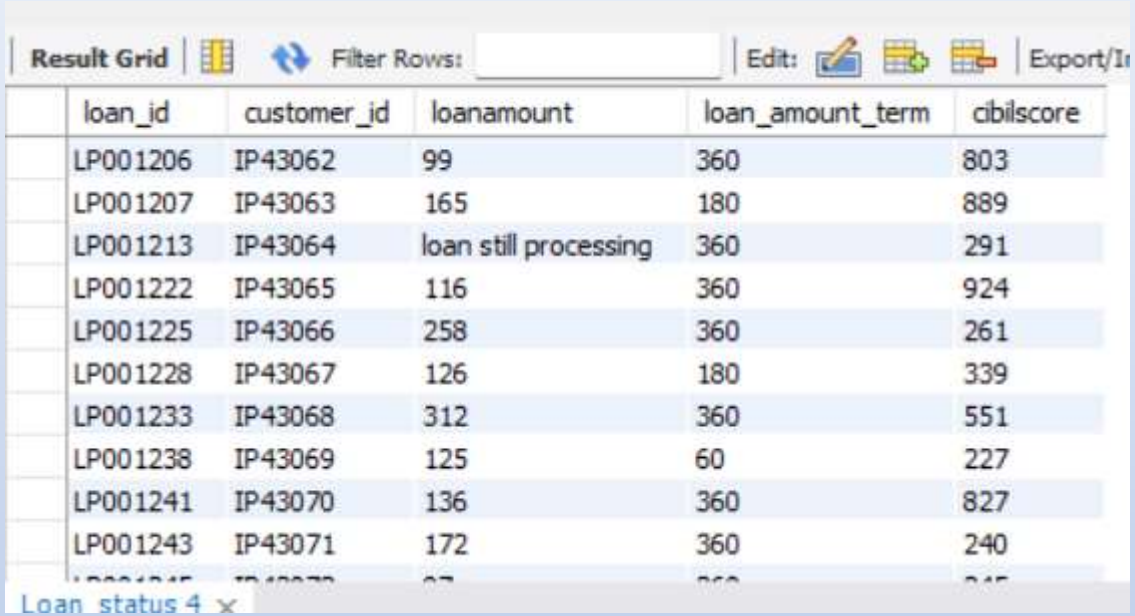
Loan_ID	Customer ID	ApplicantIncome	CoapplicantIncome	Property_Area	Loan_Status	grade	monthly_intrest_percentage
LP001002	IP43001	5849	0	Urban	Y	middle class customer	7.00
LP001003	IP43002	4583	1508	Rural	N	low class	3.00
LP001005	IP43003	3000	0	Urban	Y	low class	5.00
LP001006	IP43004	2583	2358	Urban	Y	low class	5.00
LP001008	IP43005	6000	0	Urban	Y	middle class customer	7.00
LP001011	IP43006	5417	4196	Urban	Y	middle class customer	7.00
LP001013	IP43007	2333	1516	Urban	Y	low class	5.00
LP001014	IP43008	3036	2504	Semiurban	N	low class	7.00
LP001018	IP43009	4006	1526	Urban	Y	low class	5.00
LP001020	IP43010	12841	10968	Semiurban	N	grade B	7.00
LP001024	IP43011	3200	700	Urban	Y	low class	5.00
LP001027	IP43012	2500	1840	Urban	Y	low class	5.00
LP001028	IP43013	3073	8106	Urban	Y	low class	5.00
LP001029	IP43014	1853	2840	Rural	N	low class	3.00
LP001030	IP43015	1299	1086	Urban	Y	low class	5.00
LP001032	IP43016	4950	0	Urban	Y	low class	5.00
LP001034	IP43017	3596	0	Urban	Y	low class	5.00
LP001036	IP43018	3510	0	Urban	N	low class	5.00

applicant_income_grades2

Creating Row level Trigger and Statement Level Trigger

```
-- dummy table
create table dummy(loan_id text(10), customer_id text,loanamount text, loan_amount_term int,cibilscore int,primary key(loan_id(10)));
select * from dummy;
-- primary table
create table loan_status(loan_id text(10), customer_id text,loanamount text, loan_amount_term int,cibilscore int,primary key(loan_id(10)));
select * from Loan_status;
-- secondary table
create table loan_cibilscore_status_details(loan_id text,loanamount text,cibilscore int,cibilscore_status text, primary key(loan_id(10)));
select * from loan_cibilscore_status_details;
drop table loan_status;
drop table loan_cibilscore_status_details;
-- before insert trigger query
delimiter //
create trigger loan_check before insert on loan_status for each row
begin
 if new.loanamount is null then set new.loanamount='loan still processing';

end if;
end //
delimiter ;
```

Loan Still Processing Customers



```
-- after insert trigger
delimiter //
create trigger cibilscore after insert on loan_Status for each row
begin
if new.cibilscore>900 then insert into loan_cibilscore_status_details(loan_id,loanamount,cibilscore,cibilscore_status)values
(new.loan_id ,new.loanamount,new.cibilscore,'high  cibil score');
elseif new.cibilscore>750 then insert into loan_cibilscore_status_details(loan_id,loanamount,cibilscore,cibilscore_status)
values(new.loan_id ,new.loanamount,new.cibilscore,'no penalty');
elseif new.cibilscore>0 then insert into loan_cibilscore_status_details(loan_id,loanamount,cibilscore,cibilscore_status)
values(new.loan_id ,new.loanamount,new.cibilscore,'penalty customers');
else  insert into loan_cibilscore_status_details(loan_id,loanamount,cibilscore,cibilscore_status)
values(new.loan_id ,new.loanamount,new.cibilscore,'reject customer');
end if;
end //
delimiter ;
select count(*) from loan_cibilscore_status_details where cibilscore_status='penalty customers';
-- inserting values from dummy
insert into loan_status (loan_id, customer_id, loanamount, loan_amount_term, cibilscore)
select loan_id, customer_id, loanamount, loan_amount_term, cibilscore
from dummy;
```

Deleting the customers who's application and loan amount are not processed

```
-- deleting values
delete from loan_cibilscore_status_details where  loanamount='loan still processing';
delete from loan_cibilscore_status_details where cibilscore_status='reject customer';
select count(*) from loan_cibilscore_status_details;

-- alter table
alter table loan_cibilscore_status_details modify loanamount int;
describe loan_cibilscore_status_details;
```

After Deleting the Customers the total number of Customers are

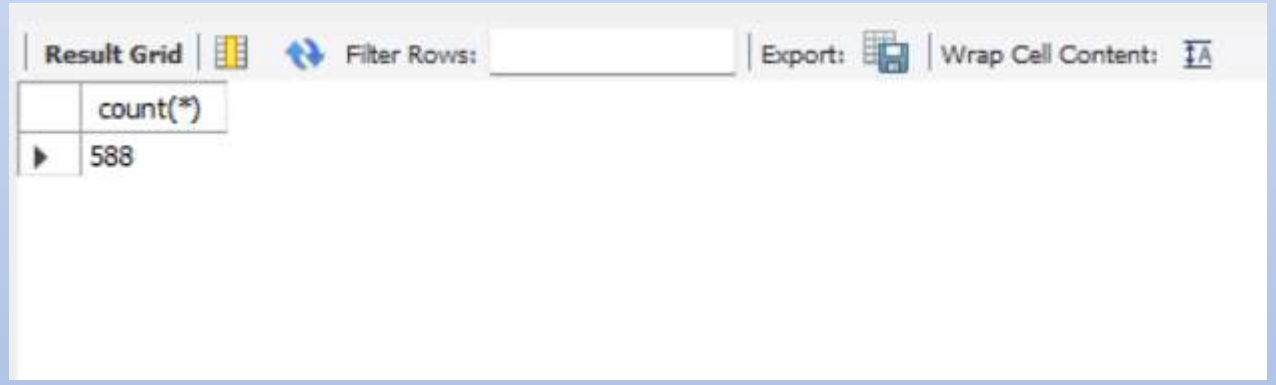
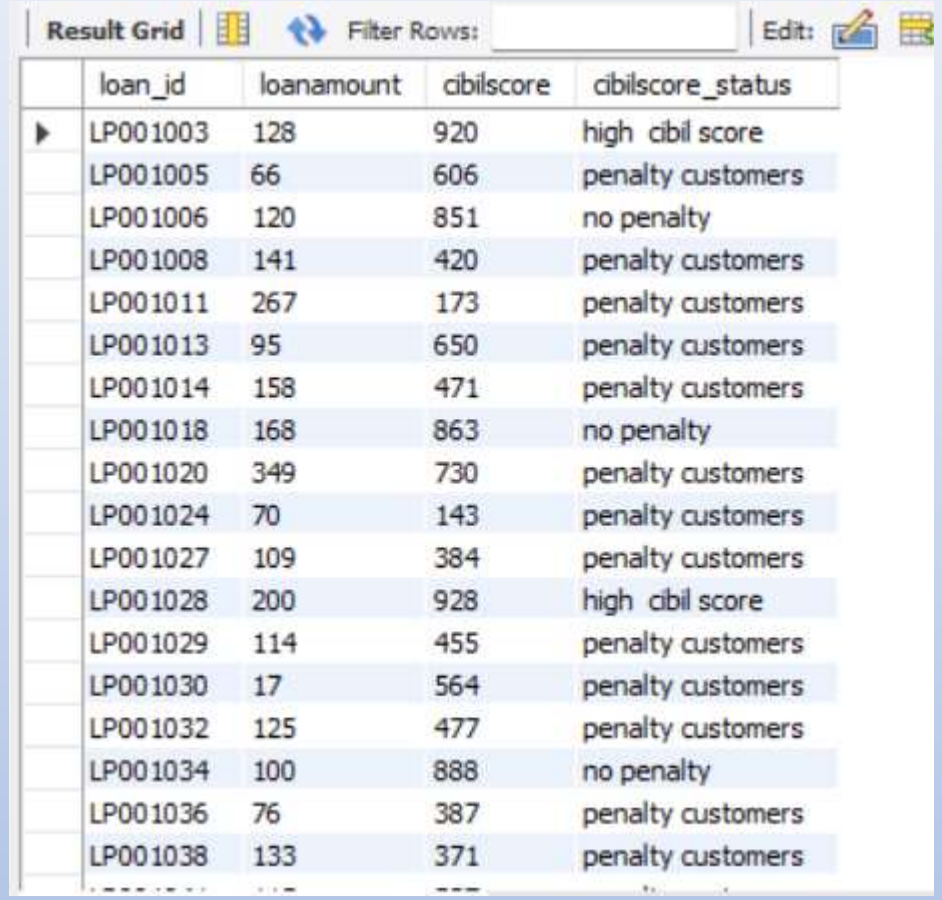


Table 2 – Cibil Score Status Table



Result Grid | Filter Rows: | Edit:

loan_id	loanamount	cibilscore	cibilscore_status
LP001003	128	920	high cibil score
LP001005	66	606	penalty customers
LP001006	120	851	no penalty
LP001008	141	420	penalty customers
LP001011	267	173	penalty customers
LP001013	95	650	penalty customers
LP001014	158	471	penalty customers
LP001018	168	863	no penalty
LP001020	349	730	penalty customers
LP001024	70	143	penalty customers
LP001027	109	384	penalty customers
LP001028	200	928	high cibil score
LP001029	114	455	penalty customers
LP001030	17	564	penalty customers
LP001032	125	477	penalty customers
LP001034	100	888	no penalty
LP001036	76	387	penalty customers
LP001038	133	371	penalty customers

Calculating Monthly interest and annual Interest

```
-- calculating monthly and annual intrest
describe applicant_income_grades;
drop table customer_intrest_analysis;
 create table customer_intrest_analysis as select A.*,l.loanamount,l.cibilscore,l.cibilscore_status,
 case
 when applicantincome<5000 and property_area ='rural' then (loanamount*(3/100))
 when applicantincome<5000 and property_area='semi rural' then (loanamount*(3.5/100))
 when applicantincome<5000 and property_area='urban' then (loanamount*(5/100))
  when applicantincome<5000 and property_area='semi urban' then (loanamount*(2.5/100))
  else  (loanamount*(7/100))
  end as monthly_intrest,
  case
   when applicantincome<5000 and property_area ='rural' then (loanamount*(3/100)*12)
 when applicantincome<5000 and property_area='semi rural' then (loanamount*(3.5/100)*12)
 when applicantincome<5000 and property_area='urban' then (loanamount*(5/100)*12)
  when applicantincome<5000 and property_area='semi urban' then (loanamount*(2.5/100)*12)
  else  (loanamount*(7/100)*12)
  end as annual_intrest
from applicant_income_grades a
 inner join loan_cibilscore_status_details l on a.loan_id=l.loan_id;
```

Annual and Monthly Interest Calculation

```
-- calculating monthly and annual intrest
describe applicant_income_grades;
drop table customer_intrest_analysis;
 create table customer_intrest_analysis as select A.*,l.loanamount,l.cibilscore,l.cibilscore_status,
 case
 when applicantincome<5000 and property_area ='rural' then (loanamount*(3/100))
 when applicantincome<5000 and property_area='semi rural' then (loanamount*(3.5/100))
 when applicantincome<5000 and property_area='urban' then (loanamount*(5/100))
  when applicantincome<5000 and property_area='semi urban' then (loanamount*(2.5/100))
  else  (loanamount*(7/100))
  end as monthly_intrest,
  case
   when applicantincome<5000 and property_area ='rural' then (loanamount*(3/100)*12)
 when applicantincome<5000 and property_area='semi rural' then (loanamount*(3.5/100)*12)
 when applicantincome<5000 and property_area='urban' then (loanamount*(5/100)*12)
  when applicantincome<5000 and property_area='semi urban' then (loanamount*(2.5/100)*12)
  else  (loanamount*(7/100)*12)
  end as annual_intrest
from applicant_income_grades a
 inner join loan_cibilscore_status_details l on a.loan_id=l.loan_id;
drop table customer_intrest_analysis;
 select * from customer_intrest_analysis;
 select count(*) from customer_intrest_analysis;
```

Table 3 – Loan interest Table

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

Loan_ID	Customer ID	ApplicantIncome	CoapplicantIncome	Property_Area	Loan_Status	grade	monthly_intrest_percentage	loanamount	cibilscore	cibilscore_status	monthly_intrest	annual_intrest
LP001003	IP43002	4583	1508	Rural	N	low class	3	128	920	high cibil score	3.84000	46.08000
LP001005	IP43003	3000	0	Urban	Y	low class	5	66	606	penalty customers	3.30000	39.60000
LP001006	IP43004	2583	2358	Urban	Y	low class	5	120	851	no penalty	6.00000	72.00000
LP001008	IP43005	6000	0	Urban	Y	middle class customer	7	141	420	penalty customers	9.87000	118.44000
LP001011	IP43006	5417	4196	Urban	Y	middle class customer	7	267	173	penalty customers	18.69000	224.28000
LP001013	IP43007	2333	1516	Urban	Y	low class	5	95	650	penalty customers	4.75000	57.00000
LP001014	IP43008	3036	2504	Semiurban	N	low class	7	158	471	penalty customers	11.06000	132.72000
LP001018	IP43009	4006	1526	Urban	Y	low class	5	168	863	no penalty	8.40000	100.80000
LP001020	IP43010	12841	10968	Semiurban	N	grade B	7	349	730	penalty customers	24.43000	293.16000
LP001024	IP43011	3200	700	Urban	Y	low class	5	70	143	penalty customers	3.50000	42.00000
LP001027	IP43012	2500	1840	Urban	Y	low class	5	109	384	penalty customers	5.45000	65.40000
LP001028	IP43013	3073	8106	Urban	Y	low class	5	200	928	high cibil score	10.00000	120.00000
LP001029	IP43014	1853	2840	Rural	N	low class	3	114	455	penalty customers	3.42000	41.04000
LP001030	IP43015	1299	1086	Urban	Y	low class	5	17	564	penalty customers	0.85000	10.20000
LP001032	IP43016	4950	0	Urban	Y	low class	5	125	477	penalty customers	6.25000	75.00000
LP001034	IP43017	3596	0	Urban	Y	low class	5	100	888	no penalty	5.00000	60.00000
LP001036	IP43018	3510	0	Urban	N	low class	5	76	387	penalty customers	3.80000	45.60000
LP001038	IP43019	4887	0	Rural	N	low class	3	133	371	penalty customers	3.99000	47.88000

customer_intrest_analysis6

Updating the Gender and age of customers

```
 select * from customer_det;
 drop table customer_det;
 select count(*) from customer_det;
update customer_det
set gender =
case
when customer_id in ('IP43006','IP43016','IP43508','IP43577','IP43589','IP43593') then'female'
when customer_id in ('IP43018','IP43038') then 'male'
else 'gender'
end;

update customer_det
set age=
case
when customer_id='IP43007' then 45
when customer_id='IP43009' then 32
else age
end;

select * from customer_det where customer_id='IP43018';
```

Table 4 – Customer information

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

Customer_ID	Customer_name	Gender	Age	Married	Education	Self_Employed	Loan_Id	Region_id
IP43001	Claire Gute	Male	50	No	Graduate	No	LP001002	13.2
IP43002	Darrin Van Huff	Male	66	Yes	Graduate	No	LP001003	13.2
IP43003	Sean O'Donnell	Male	20	Yes	Graduate	Yes	LP001005	13.2
IP43004	Brosina Hoffman	Male	46	Yes	Not Graduate	No	LP001006	13.2
IP43005	Andrew Allen	Male	18	No	Graduate	No	LP001008	13.2
IP43006	Irene Maddox	female	66	Yes	Graduate	Yes	LP001011	13.2
IP43007	Harold Pawlan	Male	45	Yes	Not Graduate	No	LP001013	13.3
IP43008	Pete Kriz	Male	41	Yes	Graduate	No	LP001014	13.3
IP43009	Alejandro Grove	Male	32	Yes	Graduate	No	LP001018	13.2
IP43010	Zuschuss Donatelli	Male	21	Yes	Graduate	No	LP001020	13.2
IP43011	Ken Black	Male	48	Yes	Graduate	No	LP001024	13.3
IP43012	Sandra Flanagan	Male	19	Yes	Graduate	NULL	LP001027	13.4
IP43013	Emily Burns	Male	28	Yes	Graduate	No	LP001028	13.2
IP43014	Eric Hoffmann	Male	46	No	Graduate	No	LP001029	13.2
IP43015	Tracy Blumstein	Male	31	Yes	Graduate	No	LP001030	13.4
IP43016	Matt Abelman	female	51	No	Graduate	No	LP001032	13.3
IP43017	Gene Hale	Male	20	No	Not Graduate	No	LP001034	13.3
IP43018	Steve Nguyen	male	27	No	Graduate	No	LP001036	13.3

Joining Customer state and region id table

```
select * from country_state;
select count(*) from country_state;
select * from region_info;
create table  country_region  as select c.*,r.Region from country_state c right join region_info r on c.region_id=r.region_id;
select * from country_region;
alter table country_region add primary key (customer_id(10));
describe country_region;
```

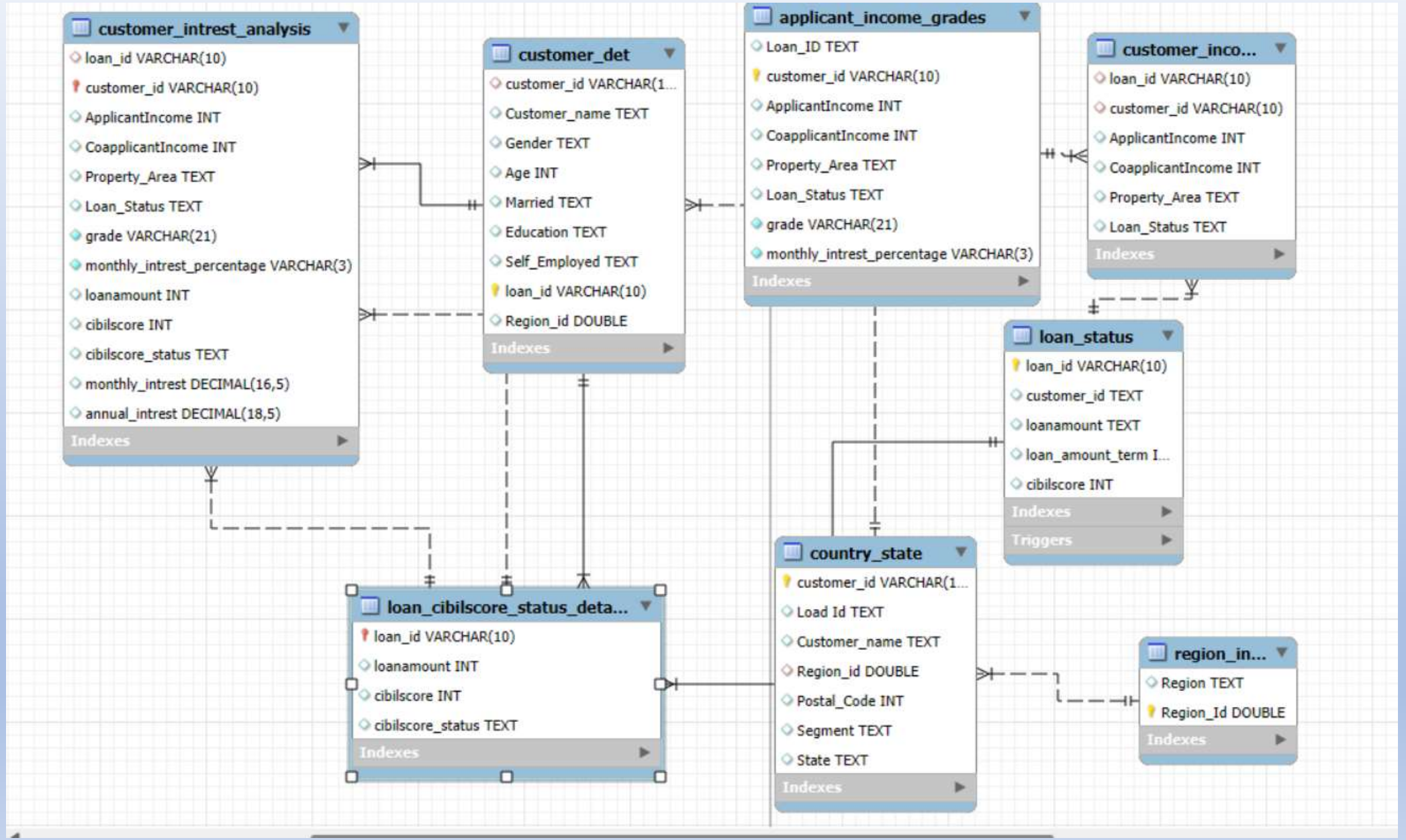
Table 5 - Customer Residence Table

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

Customer_id	Load Id	Customer_name	Region_id	Postal_Code	Segment	State	Region
NULL	NULL	NULL	NULL	NULL	NULL	NULL	South
IP43614	LP002990	Eleni McCrary	13.2	90036	Corporate	California	West
IP43613	LP002984	Tamara Manning	13.2	94122	Consumer	California	West
IP43611	LP002979	Christina VanderZanden	13.2	93727	Consumer	California	West
IP43610	LP002978	Scott Cohen	13.2	94122	Corporate	California	West
IP43609	LP002974	Kelly Williams	13.2	37042	Consumer	Tennessee	West
IP43608	LP002964	Kristina Nunn	13.2	80525	Home Office	Colorado	West
IP43605	LP002959	Becky Castell	13.2	85345	Home Office	Arizona	West
IP43603	LP002953	Ricardo Sperren	13.2	98115	Corporate	Washington	West
IP43602	LP002950	Patrick Jones	13.2	37130	Corporate	Tennessee	West
IP43601	LP002949	Jim Karlsson	13.2	98115	Consumer	Washington	West
IP43600	LP002948	Tom Prescott	13.2	98115	Consumer	Washington	West
IP43599	LP002945	Sean Miller	13.2	28110	Home Office	North Caro...	West
IP43598	LP002943	Mark Van Huff	13.2	22204	Consumer	Virginia	West
IP43596	LP002940	Maria Zettner	13.2	92024	Home Office	California	West
IP43595	LP002938	Justin MacKendrick	13.2	90004	Consumer	California	West
IP43594	LP002936	Barry Franz	13.2	91104	Home Office	California	West
IP43593	LP002933	Toby Gnade	13.2	90049	Consumer	California	West

country_region 9

Entity Relationship Diagram

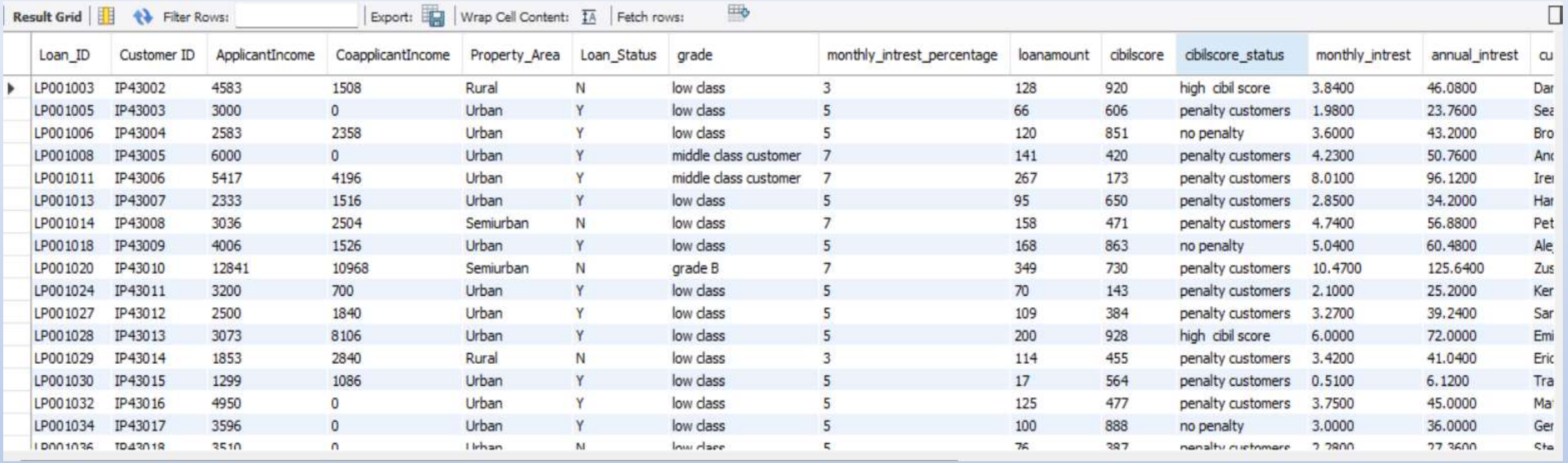


Output – 1

Joining all the five tables without repeating values.

```
 create table output_1 as select A.*,l.loanamount,l.cibilscore,l.cibilscore_status,c.monthly_intrest,c.annual_intrest,
d.customer_name,d.gender,d.age,d.married,d.education,d.self_employed,d.region_id,r.postal_code,r.segment,r.state,r.region from applicant_income_grades a
inner join loan_cibilscore_status_details l on a.loan_id=l.loan_id
inner join customer_intrest_analysis c on l.loan_id=c.loan_id
inner join customer_det d on c.loan_id=d.loan_id
inner join country_region r on d.customer_id=r.customer_id;
select * from output_1;
select count(*) from output_1;
drop table output_1;
```

Result - 1



Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

Loan_ID	Customer ID	ApplicantIncome	CoapplicantIncome	Property_Area	Loan_Status	grade	monthly_intrest_percentage	loanamount	cibilscore	cibilscore_status	monthly_intrest	annual_intrest	cu
LP001003	IP43002	4583	1508	Rural	N	low class	3	128	920	high cibil score	3.8400	46.0800	Dar
LP001005	IP43003	3000	0	Urban	Y	low class	5	66	606	penalty customers	1.9800	23.7600	Sea
LP001006	IP43004	2583	2358	Urban	Y	low class	5	120	851	no penalty	3.6000	43.2000	Bro
LP001008	IP43005	6000	0	Urban	Y	middle class customer	7	141	420	penalty customers	4.2300	50.7600	Anc
LP001011	IP43006	5417	4196	Urban	Y	middle class customer	7	267	173	penalty customers	8.0100	96.1200	Ire
LP001013	IP43007	2333	1516	Urban	Y	low class	5	95	650	penalty customers	2.8500	34.2000	Har
LP001014	IP43008	3036	2504	Semiurban	N	low class	7	158	471	penalty customers	4.7400	56.8800	Pet
LP001018	IP43009	4006	1526	Urban	Y	low class	5	168	863	no penalty	5.0400	60.4800	Ale
LP001020	IP43010	12841	10968	Semiurban	N	grade B	7	349	730	penalty customers	10.4700	125.6400	Zus
LP001024	IP43011	3200	700	Urban	Y	low class	5	70	143	penalty customers	2.1000	25.2000	Ker
LP001027	IP43012	2500	1840	Urban	Y	low class	5	109	384	penalty customers	3.2700	39.2400	Sar
LP001028	IP43013	3073	8106	Urban	Y	low class	5	200	928	high cibil score	6.0000	72.0000	Emi
LP001029	IP43014	1853	2840	Rural	N	low class	3	114	455	penalty customers	3.4200	41.0400	Eric
LP001030	IP43015	1299	1086	Urban	Y	low class	5	17	564	penalty customers	0.5100	6.1200	Tra
LP001032	IP43016	4950	0	Urban	Y	low class	5	125	477	penalty customers	3.7500	45.0000	Ma
LP001034	IP43017	3596	0	Urban	Y	low class	5	100	888	no penalty	3.0000	36.0000	Ger
LP001036	IP43018	3510	0	Urban	N	low class	5	76	397	penalty customers	2.2800	27.3600	Ste

Output -2

Finding the mismatching values

```
create table output_2 as
select C.*,r.Postal_code,r.segment,r.state,r.region from customer_det C
right join country_region r  on c.customer_id= r.customer_id
where c.customer_id is null and r.segment is null;

select * from output_2;
```

Result - 2

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Customer_ID	Customer_name	Gender	Age	Married	Education	Self_Employed	Loan_Id	Region_id	Postal_code	segment	state	region
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	South

Output – 3

Filtering cibil score status of customers with high cibil score

```
 create table output_3 as  select A.*,l.loanamount,l.cibilscore,l.cibilscore_status,c.monthly_intrest,c.annual_intrest,
d.customer_name,d.gender,d.age,d.married,d.education,d.self_employed,d.region_id,r.postal_code,r.segment,r.state,r.region from applicant_income_grades a
inner join loan_cibilscore_status_details l on a.loan_id=l.loan_id
inner join customer_intrest_analysis c on l.loan_id=c.loan_id
inner join customer_det d on c.loan_id=d.loan_id
inner join country_region r on d.customer_id=r.customer_id
where l.cibilscore_status='high  cibil score';
select * from output_3;
select count(*) from output_3;
```

Result - 3

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

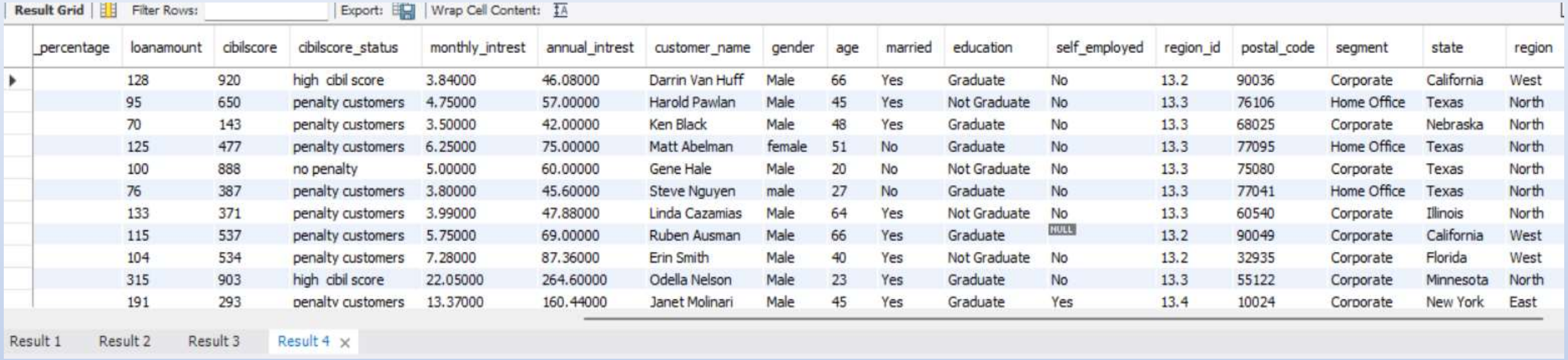
Loan_ID	Customer ID	ApplicantIncome	CoapplicantIncome	Property_Area	Loan_Status	grade	monthly_intrest_percentage	loanamount	cibilscore	cibilscore_status	monthly_intrest	annual_intrest	cust
LP001003	IP43002	4583	1508	Rural	N	low class	3	128	920	high cibil score	3.8400	46.0800	Darri
LP001028	IP43013	3073	8106	Urban	Y	low class	5	200	928	high cibil score	6.0000	72.0000	Emily
LP001046	IP43022	5955	5625	Urban	Y	middle class customer	7	315	903	high cibil score	9.4500	113.4000	Odell
LP001068	IP43027	2799	2253	Semiurban	Y	low class	7	122	999	high cibil score	3.6600	43.9200	Ted E
LP001091	IP43031	4166	3369	Urban	N	low class	5	201	972	high cibil score	6.0300	72.3600	Karer
LP001199	IP43060	3357	2859	Urban	Y	low class	5	144	949	high cibil score	4.3200	51.8400	Troy
LP001222	IP43065	4166	0	Semiurban	N	low class	7	116	924	high cibil score	3.4800	41.7600	Sally
LP001264	IP43080	3333	2166	Semiurban	Y	low class	7	130	951	high cibil score	3.9000	46.8000	Chad
LP001275	IP43085	3988	0	Urban	Y	low class	5	50	933	high cibil score	1.5000	18.0000	Robe
LP001280	IP43087	3333	2000	Semiurban	Y	low class	7	99	985	high cibil score	2.9700	35.6400	Frank
LP001333	IP43098	1977	997	Semiurban	Y	low class	7	50	994	high cibil score	1.5000	18.0000	Laure
LP001404	IP43117	3167	2283	Semiurban	Y	low class	7	154	919	high cibil score	4.6200	55.4400	Roy (
LP001422	IP43120	10408	0	Urban	Y	grade B	7	259	997	high cibil score	7.7700	93.2400	Chris
LP001451	IP43129	10513	3850	Urban	N	grade B	7	160	929	high cibil score	4.8000	57.6000	Core
LP001482	IP43134	3459	0	Semiurban	Y	low class	7	25	926	high cibil score	0.7500	9.0000	Sung
LP001514	IP43146	2330	4486	Semiurban	Y	low class	7	100	923	high cibil score	3.0000	36.0000	Jerer
LP001535	IP43155	3254	0	Urban	Y	low class	5	50	940	high cibil score	1.5000	18.0000	Russ

Output – 4

Filtering the Home Office and Corporate Customers.

```
create table output_4 as select A.*,l.loanamount,l.cibilscore,l.cibilscore_status,c.monthly_intrest,c.annual_intrest,
d.customer_name,d.gender,d.age,d.married,d.education,d.self_employed,d.region_id,r.postal_code,r.segment,r.state,r.region from applicant_income_grades a
inner join loan_cibilscore_status_details l on a.loan_id=l.loan_id
inner join customer_intrest_analysis c on l.loan_id=c.loan_id
inner join customer_det d on c.loan_id=d.loan_id
inner join country_region r on d.customer_id=r.customer_id where segment in ('home office','corporate');

select * from output_4;
```

Result - 4



Result Grid | Filter Rows: | Export: | Wrap Cell Content:

_percentage	loanamount	cibilscore	cibilscore_status	monthly_intrest	annual_intrest	customer_name	gender	age	married	education	self_employed	region_id	postal_code	segment	state	region
	128	920	high cibil score	3.84000	46.08000	Darrin Van Huff	Male	66	Yes	Graduate	No	13.2	90036	Corporate	California	West
	95	650	penalty customers	4.75000	57.00000	Harold Pawlan	Male	45	Yes	Not Graduate	No	13.3	76106	Home Office	Texas	North
	70	143	penalty customers	3.50000	42.00000	Ken Black	Male	48	Yes	Graduate	No	13.3	68025	Corporate	Nebraska	North
	125	477	penalty customers	6.25000	75.00000	Matt Abelman	female	51	No	Graduate	No	13.3	77095	Home Office	Texas	North
	100	888	no penalty	5.00000	60.00000	Gene Hale	Male	20	No	Not Graduate	No	13.3	75080	Corporate	Texas	North
	76	387	penalty customers	3.80000	45.60000	Steve Nguyen	male	27	No	Graduate	No	13.3	77041	Home Office	Texas	North
	133	371	penalty customers	3.99000	47.88000	Linda Cazamias	Male	64	Yes	Not Graduate	No	13.3	60540	Corporate	Illinois	North
	115	537	penalty customers	5.75000	69.00000	Ruben Ausman	Male	66	Yes	Graduate	NULL	13.2	90049	Corporate	California	West
	104	534	penalty customers	7.28000	87.36000	Erin Smith	Male	40	Yes	Not Graduate	No	13.2	32935	Corporate	Florida	West
	315	903	high cibil score	22.05000	264.60000	Odella Nelson	Male	23	Yes	Graduate	No	13.3	55122	Corporate	Minnesota	North
	191	293	penalty customers	13.37000	160.44000	Janet Molinari	Male	45	Yes	Graduate	Yes	13.4	10024	Corporate	New York	East

Result 1 | Result 2 | Result 3 | Result 4

Storing all the 4 Result in Procedures.

```
drop procedure project_output;
delimiter //
create procedure project_output()
begin
select * from output_1;
select * from output_2;
 select * from  output_3;
select * from output_4;

end //
delimiter ;
```

Call the procedure to display the results

```
call project_output();
```

Procedure Output.

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Loan_ID	Customer ID	ApplicantIncome	CoapplicantIncome	Property_Area	Loan_Status	grade
LP001003	IP43002	4583	1508	Rural	N	low class
LP001005	IP43003	3000	0	Urban	Y	low class
LP001006	IP43004	2583	2358	Urban	Y	low class
LP001008	IP43005	6000	0	Urban	Y	middle class customer
LP001011	IP43006	5417	4196	Urban	Y	middle class customer
LP001013	IP43007	2333	1516	Urban	Y	low class
LP001014	IP43008	3036	2504	Semiurban	N	low class
LP001018	IP43009	4006	1526	Urban	Y	low class
LP001020	IP43010	12841	10968	Semiurban	N	grade B
LP001024	IP43011	3200	700	Urban	Y	low class
LP001027	IP43012	2500	1840	Urban	Y	low class

Result 16 | Result 17 | Result 18 | Result 19

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Customer_ID	Customer_name	Gender	Age	Married	Education	Self_Employed	Loan_Id	Region_id	Postal_code	segment	state	region
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	South

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Loan_ID	Customer ID	ApplicantIncome	CoapplicantIncome	Property_Area	Loan_Status	grade	monthly_intrest_percentag
LP001003	IP43002	4583	1508	Rural	N	low class	3
LP001028	IP43013	3073	8106	Urban	Y	low class	5
LP001046	IP43022	5955	5625	Urban	Y	middle class customer	7
LP001068	IP43027	2799	2253	Semiurban	Y	low class	7
LP001091	IP43031	4166	3369	Urban	N	low class	5
LP001199	IP43060	3357	2859	Urban	Y	low class	5
LP001222	IP43065	4166	0	Semiurban	N	low class	7
LP001264	IP43080	3333	2166	Semiurban	Y	low class	7
LP001275	IP43085	3988	0	Urban	Y	low class	5
LP001280	IP43087	3333	2000	Semiurban	Y	low class	7
LP001333	IP43098	1977	997	Semiurban	Y	low class	7

Result 16 Result 17 Result 18 Result 19

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Loan_ID	Customer ID	ApplicantIncome	CoapplicantIncome	Property_Area	Loan_Status	grade	monthly_intrest_percentage	loanamount
LP001003	IP43002	4583	1508	Rural	N	low class	3.00	128
LP001013	IP43007	2333	1516	Urban	Y	low class	5.00	95
LP001024	IP43011	3200	700	Urban	Y	low class	5.00	70
LP001032	IP43016	4950	0	Urban	Y	low class	5.00	125
LP001034	IP43017	3596	0	Urban	Y	low class	5.00	100
LP001036	IP43018	3510	0	Urban	N	low class	5.00	76
LP001038	IP43019	4887	0	Rural	N	low class	3.00	133
LP001041	IP43020	2600	3500	Urban	Y	low class	5.00	115
LP001043	IP43021	7660	0	Urban	N	middle class customer	7.00	104
LP001046	IP43022	5955	5625	Urban	Y	middle class customer	7.00	315
LP001066	IP43026	9560	0	Semiurban	Y	grade B	7.00	191

Result 16 Result 17 Result 18 Result 19 ×

Thank You