#SYCOA302 Ritish Shelke

Problem Statement:

Account(Acc no, branch name, balance)

branch(branch_name,branch_city,assets)

customer(cust_name,cust_street,cust_city)

Depositor(cust_name,acc_no)

Loan(loan_no,branch_name,amount)

Borrower(cust_name,loan_no)

select * from account;

+		++
Acc_no	branch_name	balance
+		++
901	Akurdi	200000
902	Deccan	1000.5
903	Kothrud	15785
904	Akurdi	20369
905	Akurdi	80123.6
906	Pimpri	10000
907 Chinchwad 1000000		
908	Pimpri	6532.87
909	Akurdi	85500
910	Pimpri	6500
++		
10 rows in set (0.03 sec)		

select * from branch;

Akurdi Pune Chinchwad Pune Deccan Pune Kothrud Pune	+ branch_name	++ branch_city +
Kothrud Pune		Pune
l Pimori I Dune I	Kothrud	Pune
+	Pimpri +	Pune ++

select * from customer;



select * from depositor;

+	+	
cust_name	acc_no	
+	+	
Charisse Rolin	901	
Poppy Landis	902	
Ronni Dinis	903	
Levin Scambler	904	
Patti Berge	905	
Koo Kennerley	906	
Travus Donke	907	
Bink Skellen	908	
Rhianna Walhedd	909	
Pace Bumphries	910	
		
10 rows in set (0.01 sec)		

select * from loan;

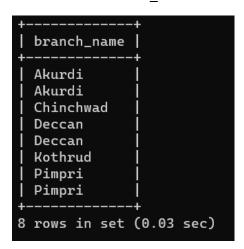
loan_no	D 2 3111 211 _ 1131111 2	++ amount
+	Akurdi Deccan Kothrud Deccan Akurdi Pimpri Chinchwad Pimpri	200000 100050 1578500 203609 8012360 1000000 999990 653270
++ 9 rows in set (0.00 sec)		

select * from borrower;

++	+
cust_name	loan_no
Charisse Rolin Poppy Landis Ronni Dinis Levin Scambler Patti Berge Koo Kennerley Travus Donke Travus Donke Travus Donke	99901 99902 99903 99904 99905 99906 99907 99908

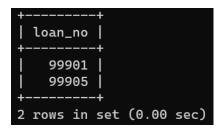
Q1. Find the names of all branches in loan relation.

select distinct branch name from loan;



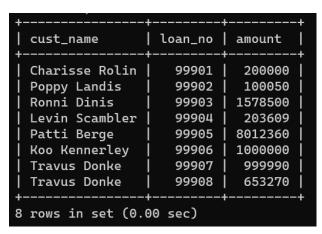
Q2. Find all loan numbers for loans made at Akurdi Branch with loan amount > 12000.

select loan_no from loan where branch_name="Akurdi" and amount> 12000;



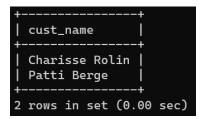
Q3. Find all customers who have a loan from bank. Find their names, loan_no and loan amount.

select b.cust_name, l.loan_no, l.amount from borrower b inner join loan l on b.loan_no= l.loan_no;



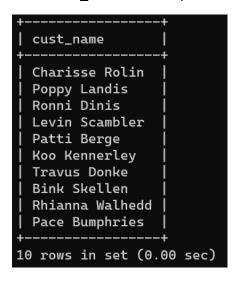
Q4. List all customers in alphabetical order who have loan from Akurdi branch.

select cust_name from borrower where loan_no in (select loan_no from loan where branch name="Akurdi") order by cust name;



Q5. Find all customers who have an account or loan or both at bank.

select cust name from depositor union select cust name from borrower;



Q6. Find all customers who have both account and loan at bank.

select cust name from depositor intersect select cust name from borrower;



Q7. Find all customer who have account but no loan at the bank.

select cust name from depositor minus select cust name from borrower;

Q8. Find average account balance at Akurdi branch.

select avg(balance) from Account where branch_name="Akurdi";

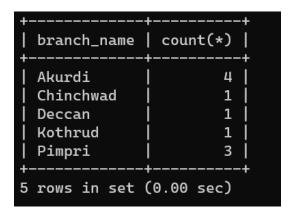
```
+----+
| avg(balance) |
+----+
| 96498.14453125 |
+----+
1 row in set (0.00 sec)
```

Q9. Find the average account balance at each branch

select branch_name,avg(balance) from Account group by branch_name;

Q10. Find no. of depositors at each branch.

select a.branch_name, count(*) from Account a inner join depositor b on a.acc_no=b.acc_no group by a.branch_name;



Q11. Find the branches where average account balance > 12000.

select branch_name from Account group by branch_name having avg(balance)>12000;

Q12. Find number of tuples in customer relation.

select count(*) from customer;

```
+-----+
| count(*) |
+-----+
| 10 |
+-----+
1 row in set (0.01 sec)
```

Q13. Calculate total loan amount given by bank.

select sum(amount) as Total_Loan_amount from loan;

```
+-----+
| Total_Loan_amount |
+-----+
| 12747777 |
+-----+
1 row in set (0.00 sec)
```

Q14. Delete all loans with loan amount between 1300 and 1500.

delete from loan where amount between 1300 and 1500;

loan_no	branch_name	++ amount
99901 99902 99903 99904 99905 99906 99907	Akurdi Deccan Kothrud Deccan Akurdi Pimpri Chinchwad	200000 100050 1578500 203609 8012360 1000000 999990

Q15. Delete all tuples at every branch located in Nigdi.

DELETE FROM branch WHERE branch_name='Nigdi';

Q.16. Create synonym for customer table as cust.

CREATE SYNONYM cust FOR Customer;

Q.17. Create sequence roll_seq and use in student table for roll_no column.

create sequence roll_sequence

start with 1

increment by 1

minvalue 1

maxvalue 100

nocycle;

SQL> insert into student values(roll_sequence.nextval, 'Ritish');

1 row created.