

Database Management Systems(DBMS)

LAB ASSIGNMENT - 6

Submitted By:

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Q1. List the branch names of all branches that gave loan.

Query-

```
1 SELECT branch_name FROM loan;
```

Output-

	branch_name
1	Nappier Town
2	Wright Town
3	S street
4	S street
5	Wright Town
6	Cross Square
7	Meghawan

Q2. List the names of all branches in the loan without repetition.

Query-

```
1 SELECT DISTINCT branch_name  
2 From loan;
```

Output-

	branch_name
1	Nappier Town
2	Wright Town
3	S street
4	Cross Square
5	Meghawan

Q3. List all details of loan by increasing the amount multiplied by 500 of each loan.

Query-

```
1 CREATE table loan_1 as SELECT * FROM loan ;
2
```

OUTPUT:

```
1 UPDATE loan_1 SET amount=amount*500;
```

Table: loan_1

	loan_number	branch_name	amount
	Filter	Filter	Filter
1	11	Nappier Town	450000
2	14	Wright Town	750000
3	15	S street	750000
4	16	S street	650000
5	17	Wright Town	500000
6	23	Cross Square	1000000
7	93	Meghawan	250000

Q4. Find all loan number for loans made at the “S street” branch with loan amounts greater than Rs. 1,200.

Query-

```
1 SELECT loan_number FROM loan WHERE branch_name="S street" AND amount > 1200;
```

Output-

	loan_number
1	15
2	16

Q5. Find the loan number of those loans with loan amounts between Rs. 900 and Rs. 1600.

Query-

```
1 SELECT loan_number FROM loan WHERE amount BETWEEN 900 and 1200;
```

Output-

	loan_number
1	11
2	17

Q6. Find the name, loan number and loan amount of all customers having a loan at the “S street” branch.

Query-

```
1 SELECT loan.loan_number,loan.amount,borrower_1.customer_name,borrower_1.loan_number
2 FROM loan
3 INNER JOIN borrower_1 ON loan.loan_number=borrower_1.loan_number
4 WHERE loan.branch_name="S street";
```

Output-

	loan_number	amount	customer_name	loan_number
1	16	1300	Amit	16
2	15	1500	Priya	15

QUE 7: Find the Cartesian product of borrower and loan.

Query-

```
1 SELECT customer_name,borrower_1.loan_number,loan.loan_number,amount,branch_name
2 FROM borrower_1,loan;
```

Output-

	customer_name	loan_number	loan_number	amount	branch_name
1	Amit	16	11	900	Nappier Town
2	Amit	16	14	1500	Wright Town
3	Amit	16	15	1500	S street
4	Amit	16	16	1300	S street
5	Amit	16	17	1000	Wright Town
6	Amit	16	23	2000	Cross Square
7	Amit	16	93	500	Meghawan
8	Charu	93	11	900	Nappier Town

Q8. Find the name, loan number and loan amount of all customers having a loan at the S street branch.

Query-

```
1 SELECT loan.loan_number,loan.amount,borrower_1.customer_name,borrower_1.loan_number
2 FROM loan
3 INNER JOIN borrower_1 ON loan.loan_number=borrower_1.loan_number
4 WHERE loan.branch_name="S street";
```

Output-

	loan_number	amount	customer_name	loan_number
1	16	1300	Amit	16
2	15	1500	Priya	15

Q9. Find the name, loan number and loan amount of all customers (rename the column name loan_number as loan_id). Order by name.

Query-

```
SQL 3 x SQL 5 x SQL 6 x SQL 7 x SQL 8 x SQ
1 Alter table loan RENAME COLUMN "loan_number" to "loan_id";
```

Output-

```
SQL 3 x SQL 5 x SQL 6 x SQL 7 x SQL 8 x SQL 9 x SQL 10
1 SELECT loan.loan_id,loan.amount,borrower_1.customer_name,borrower_1.loan_number
2 FROM loan
3 INNER JOIN borrower_1 ON loan.loan_id=borrower_1.loan_number
4 ORDER BY borrower_1.customer_name;
```

Q10. Find the customer names and their loan numbers for all customers having a loan at some branch.

Query-

```
1 SELECT DISTINCT borrower_1.customer_name,loan.loan_id
2 FROM borrower_1 ,loan
3 WHERE borrower_1.loan_number=loan.loan_id;
```

Output-

	customer_name	loan_id
1	Amit	16
2	Charu	93
3	Priya	15
4	Yash	14
5	Vinay	17
6	Divya	11
7	Divya	23
8	Sakshi	17

QUE 11: Find the names of all branches that have greater assets than some branch located in Hyderabad.

Query-

```
1 SELECT branch_name FROM branch WHERE branch_city NOT IN ("Hyderabad");
```

Output-

	branch_name
1	Stadium
2	Wright Town
3	North Town
4	pownal
5	Cross Square

Q12. Find the names of all customers whose street includes the substring “Street”.

Query-

```
1 SELECT customer_name FROM customer WHERE customer_street like "%Street%"
```

Output-

	customer_name
1	Jai
2	Priya
3	Vinay
4	Sakshi

Q13. List in alphabetic order the names of all customers having a loan in “S Street” branch. Arrange in the order of descending loan amount within customer names.

Query-

```
SQL 7 x SQL 8 x SQL 9 x SQL 10 x SQL 11 x SQL 1
1 SELECT a.customer_name FROM borrower_1 as a, loan as b
2 WHERE a.loan_number = b.loan_id AND b.branch_name="S street"
3 ORDER BY a.customer_name, b.amount DESC;
```

Output-

	customer_name
1	Amit
2	Priya

Q14. Find bank accounts with a balance under Rs. 700 order by increasing bank balance.

Query-

```
1 SELECT account_number FROM account WHERE balance <= 700 ORDER BY balance DESC;
```

Output-

	account_number
1	215
2	222
3	101
4	102
5	305

Q15. Get the accounts with their balance updated in the year 2012. Display them by decreasing order of balance

Query-

```
1 SELECT account_number FROM account_2 WHERE DATE like "%12" ORDER BY balance DESC;
```

Output-

	account_number
1	217
2	215

Q16. Retrieve a list of all bank branch details, ordered by branch city, with each city's branches listed in reverse order of holdings.

Query-

```
1 SELECT * FROM branch_1 GROUP BY branch_city ORDER BY assets DESC;
```

Output-

	branch_name	branch_city	assets
1	North Town	Raipur	3700000
2	Cross Square	Nagpur	2100000
3	Stadium	Delhi	710000
4	Meghawan	Hyderabad	400000
5	pownal	Bilaspur	300000

Q17: Add a new attribute “country” to table branch

Query-

```
1 ALTER TABLE branch_1
2 ADD country VARCHAR;
```

Output-

	branch_name	branch_city	assets	country
	Filter	Filter	Filter	Filter
1	Stadium	Delhi	710000	NULL
2	Wright Town	Delhi	9000000	NULL
3	Meghawan	Hyderabad	400000	NULL
4	North Town	Raipur	3700000	NULL
5	S street	Hyderabad	1700000	NULL
6	pownal	Bilaspur	300000	NULL
7	Cross Square	Nagpur	2100000	NULL
8	Nappier Town	Hyderabad	8000000	NULL

Q18. Change the domain of the “branch_city” attribute of the branch table to varchar(30)

Query-

```
SQL 8 x SQL 9 x SQL 10 x SQL 11 x
1 ALTER TABLE branch_1
2 ALTER COLUMN branch_city VARCHAR(30);
```

Output-

Database Structure Browse Data Edit Pragmas Execute SQL				
Table: branch_1				
	branch_name	branch_city	assets	country
	Filter	Filter	Filter	Filter
1	Stadium	Delhi	710000	NULL
2	Wright Town	Delhi	9000000	NULL
3	Meghawan	Hyderabad	400000	NULL
4	North Town	Raipur	3700000	NULL
5	S street	Hyderabad	1700000	NULL
6	pownal	Bilaspur	300000	NULL
7	Cross Square	Nagpur	2100000	NULL
8	Nappier Town	Hyderabad	8000000	NULL

Q19. Make the “branch_city” of the branch table has a default value of „Mumbai”

Query-

```
1 ALTER TABLE branch_1
2 ALTER branch_name
3 SET DEFAULT "Mumbai":
```

Output-

Database Structure


Browse Data


Edit Pragmas


Execute SQL


Table:


branch_1














	branch_name	branch_city	assets	country
	Filter	Filter	Filter	Filter
1	Stadium	Delhi	710000	NULL
2	Wright Town	Delhi	9000000	NULL
3	Meghawan	Hyderabad	400000	NULL
4	North Town	Raipur	3700000	NULL
5	S street	Hyderabad	1700000	NULL
6	pownal	Bilaspur	300000	NULL
7	Cross Square	Nagpur	2100000	NULL
8	Nappier Town	Hyderabad	8000000	NULL