Name - Varad Bhat
Div - D6AD B
roll no 5

Practical No.5

AIM : Implement Basic and complex SQL queries.

Nested Queries
- Nesting of queries one within another is known as a nested queries.

Subqueries
- The query within another is known as a subquery. A statement containing subquery is called parent statement.
- The rows returned by subquery are used by the parent statement.
- Subqueries can be used with the SELECT, INSERT, UPDATE, and DELETE statements along with the operators like =, <, >, >=, <=, IN, BETWEEN, etc.

1. Get all employee details from the employee table:

   SELECT * FROM EMPLOYEE

```
2 •   use employee;
3 • ⊖ create table Employee(
4       id int primary key,
5       first_name varchar(100),
6       last_name varchar(100),
7       salary int,
8       address varchar(50)
9     );
10 •  insert into Employee(id,first_name,last_name,salar
11    values
12    (1,"Lalit","Gawas",100000,"Mumbai"),
13    (2,"chaitya","Kanade",50000,"Mumbai"),
14    (3,"elon","musk",80000,"Usa")
```

id	first_name	last_name	salary	address
1	Lalit	Gawas	100000	Mumbai
2	chaitya	Kanade	50000	Mumbai
3	elon	musk	80000	Usa
NULL	NULL	NULL	NULL	NULL

2. Get First_Name,Last_Name from employee table.
   SELECT First_Name, Last_Name FROM EMPLOYEE

first_name	last_name
Lalit	Gawas
chaitya	Kanade
elon	musk

3. Get First_Name from employee table using alias name "Employee Name"
SELECT First_Name AS Employee_Name FROM Employee

```
 8    address varchar(50)
 9   );
10 •  insert into Employee(id,first_name,last_name,salary,address)
11    values
12    (1,"Lalit","Gawas",100000,"Mumbai"),
13    (2,"chaitya","Kanade",50000,"Mumbai"),
14    (3,"elon","musk",80000,"Usa")
15
16 ⊠  select * from Employee
17    select first_name ,last_name from Employee
18
19    select first_name as initial_name from Employee
```

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

initial_name
Lalit
chaitya
elon

Result Grid Filter Rows:

initial_name
Lalit
chaitya
elon

4. Get First_Name from employee table in upper case.
SELECT UPPER(First_Name) AS UpperFirstName FROM Employee

upperfirstname
LALIT
CHAITYA
ELON

5. Get First_Name from employee table in lower case.
SELECT LOWER(First_Name) AS LowerFirstName FROM Employee

lowerlastname
gawas
kanade
musk

6. Get unique DEPARTMENT from employee table.
SELECT DISTINCT Department From Employee

first_name
Lalit
chaitya
elon

Employee 7 ✕

Output

7. Get FIRST_NAME , Joining year, Joining Month and Joining Date from employee table.
Select   FIRST_NAME,   to_char(joining_date,'YYYY')   JoinYear   ,
to_char(joining_date,'Mon'), to_char(joining_date,'dd') from EMPLOYEE

SetOperators
- The Set operator combines the result of 2 queries into a single result.
- The following are the operators:

   🌑 **Union**

   🌑 **Union all**

   🌑 **Intersect**

   🌑 **Minus**

Union:
Returns all distinct rows selected by both the queries

```
19    select first_name as initial_name from Employee
20    select upper(first_name) as upperfirstname from Emp
21    select lower(last_name) as lowerlastname from Emplo
22    select distinct first_name from Employee
23    select first_name from Employee
24    union
25    select last_name from Employee
```

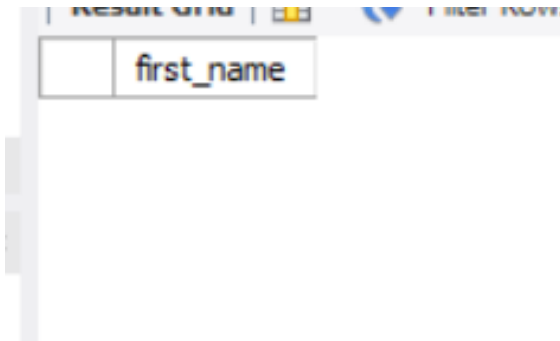| Result Grid	Filter Rows:
first_name	
Lalit	
chaitya	
elon	
Gawas	
Kanade	

Result 8 ✕

Output

Rules:
- SELECT statement within the UNION must have the same number of columns.
- The columns must also have similar data types.
- The columns in each SELECT statement must be in the same order.

Syntax:
select * from Customer where Custcity='Denver' or CustCity='Englewood
'Union
select * from Customer where Custcity='Denver' or Custcity='Littleton'

Intersect:
- Returns rows selected that are common to both queries.

Syntax:
select * from Customer where Custcity='Denver' or CustCity='Englewood'
intersect
select * from Customer where Custcity='Denver' or Custcity='Littleton'

Minus:
- The MINUS query will return the records. These are the records that exist in Dataset1 and not in Dataset2.
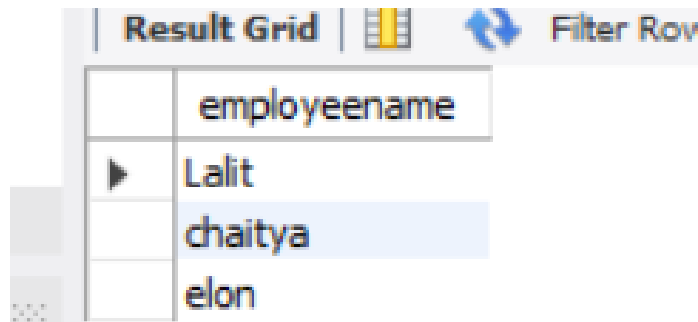
Syntax

SELECT expression1, expression2, ... expression_n FROM tables
[WHERE conditions]
MINUS
SELECT expression1, expression2, ... expression_n FROM tables

[WHERE conditions];

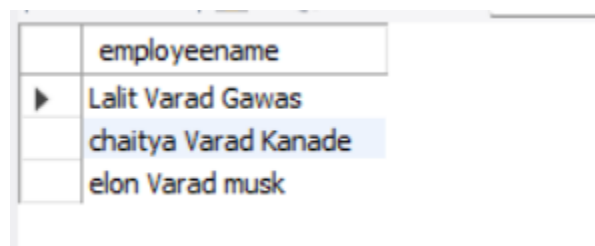**String Operations:-**
1. Replace
select replace(first_name,' Varad ',last_name) as employeename from Employee

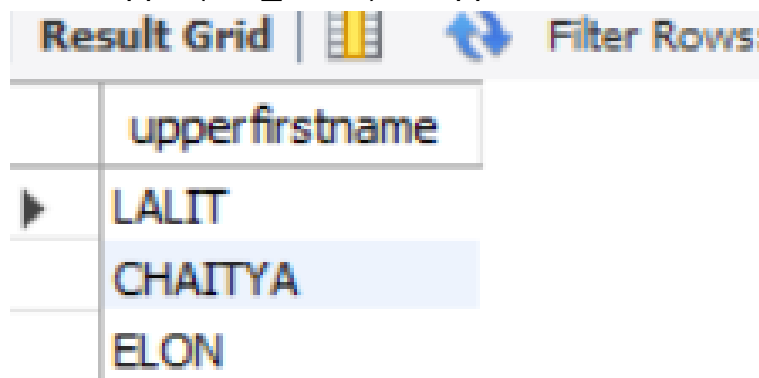| employeename |
| --- |
| Lalit |
| chaitya |
| elon |

2. CONCAT
select concat(first_name,' Varad ',last_name) as employeename from Employee

employeename
Lalit Varad Gawas
chaitya Varad Kanade
elon Varad musk

3.Upper & Lower
select upper(first_name) as upperfirstname from Employe

upperfirstname
LALIT
CHAITYA
ELON

select lower(last_name) as lowerlastname from Employee

	lowerlastname
▶	gawas
	kanade
	musk

4.LTRIM & RTRIM

select ltrim('   Varad   ') as trimstr

Result Grid

	trimstr
▶	Varad

Select rtrim('   VArad   ') as trimstr

Result Grid

	trimstr
▶	VArad