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DBMS INTERNAL LAB PRACTICAL

Creating database and tables:

```
mysql> create database manya;
Query OK, 1 row affected (0.08 sec)
```

```
mysql> use manya;
Database changed
```

```
mysql> create table Employee(EmpId int(5) primary key, Empname varchar(100), Department varchar(50), ContactNo bigint, EmailId varchar(100), EmpHeadId int(5));
Query OK, 0 rows affected (0.13 sec)
```

```
mysql> create table EmpDept(DeptId varchar(50) primary key, Deptname varchar(100), Dept_off varchar(100), DeptHead int references Employee(EmpId));
Query OK, 0 rows affected (0.11 sec)
```

```
mysql> create table EmpSalary(EmpId int references Employee(EmpId), Salary bigint, IsPermanenet varchar(3));
Query OK, 0 rows affected (0.09 sec)
```

```
mysql> create table Project(ProjectId varchar(50) primary key, Duration int);
Query OK, 0 rows affected (0.08 sec)
```

```
mysql> create table Country(cid varchar(50) primary key, cname varchar(100));
Query OK, 0 rows affected (0.13 sec)
```

```
mysql> create table ClientTable(ClientId varchar(50) primary key, Clientname varchar(100), cid varchar(50) references Country(cid));
Query OK, 0 rows affected (0.13 sec)
```

```
mysql> create table EmpProject(EmpId int references Employee(EmpId), ProjectId varchar(50) references Project(ProjectId), ClientId varchar(50) references ClientTable(ClientId), Startyear int, Endyear int);
Query OK, 0 rows affected (0.11 sec)
```

```
mysql> insert into Employee values(101,"Isha","E-101",1234567890,"isha@gmail.com",105),(102,"Priya","E-104",1234567890,"priya@gmail.com",103),(103,"Isha","E-101",1234567890,"isha@gmail.com",105),(104,"Rahul","E-102",1234567890,"rahul@gmail.com",105),(105,"Abhishek","E-101",1234567890,"abhishek@gmail.com",105);
Query OK, 5 rows affected (0.05 sec)
Records: 5 Duplicates: 0 Warnings: 0
```

```
mysql> select* from Employee;
```

| EmpId | Empname | Department | ContactNo | EmailId | EmpHeadId |
|-------|----------|------------|------------|--------------------|-----------|
| 101 | Isha | E-101 | 1234567890 | isha@gmail.com | 105 |
| 102 | Priya | E-104 | 1234567890 | priya@gmail.com | 103 |
| 103 | Isha | E-101 | 1234567890 | neha@gmail.com | 101 |
| 104 | Rahul | E-102 | 1234567890 | rahul@gmail.com | 105 |
| 105 | Abhishek | E-101 | 1234567890 | abhishek@gmail.com | 105 |

5 rows in set (0.05 sec)

```
mysql> insert into EmpDept values("E-101", "HR", "Monday", 105),("E-102", "Development", "Tuesday", 101), ("E-103", "House Keeping", "Saturday", 103), ("E-104", "Sales", "Sunday", 104), ("E-105", "Purchase", "Tuesday", 104);
Query OK, 5 rows affected (0.06 sec)
Records: 5 Duplicates: 0 Warnings: 0
```

```
mysql> select* from EmpDept;
```

| DeptId | Deptname | Dept_off | DeptHead |
|--------|---------------|----------|----------|
| E-101 | HR | Monday | 105 |
| E-102 | Development | Tuesday | 101 |
| E-103 | House Keeping | Saturday | 103 |
| E-104 | Sales | Sunday | 104 |
| E-105 | Purchase | Tuesday | 104 |

5 rows in set (0.00 sec)

```
mysql> insert into EmpSalary values(101,2000,"Yes"),(102,10000,"Yes"),(103,5000,"No"),(104,1900,"Yes"),(105,2300,"Yes");
Query OK, 5 rows affected (0.08 sec)
Records: 5 Duplicates: 0 Warnings: 0
```

```
mysql>
```

```
mysql> insert into Project values("p-1",23),("p-2",15),("p-3",45),("p-4",2),("p-5",30);
Query OK, 5 rows affected (0.03 sec)
Records: 5 Duplicates: 0 Warnings: 0
```

```
mysql> select* from EmpSalary;
```

| EmpId | Salary | IsPermanenet |
|-------|--------|--------------|
| 101 | 2000 | Yes |
| 102 | 10000 | Yes |
| 103 | 5000 | No |
| 104 | 1900 | Yes |
| 105 | 2300 | Yes |

5 rows in set (0.00 sec)

```
mysql> select* from Project;
```

| ProjectId | Duration |
|-----------|----------|
| p-1 | 23 |
| p-2 | 15 |
| p-3 | 45 |
| p-4 | 2 |
| p-5 | 30 |

5 rows in set (0.00 sec)

```
mysql> insert into country values("c-1","India"),("c-2","USA"),("c-3","China"),("c-4","Pakistan"),("c-5","Russia");
Query OK, 5 rows affected (0.05 sec)
Records: 5 Duplicates: 0 Warnings: 0

mysql> select* from Country;
+-----+-----+
| cid | cname |
+-----+-----+
| c-1 | India |
| c-2 | USA   |
| c-3 | China |
| c-4 | Pakistan |
| c-5 | Russia |
+-----+-----+
5 rows in set (0.00 sec)

mysql> insert into ClientTable values("cl-1","ABC Group","c-1"),("cl-2","PQR","c-1"),("cl-3","XYZ","c-2"),("cl-4","tech altum","c-3"),("cl-5","Mnp","c-5");
Query OK, 5 rows affected (0.06 sec)
Records: 5 Duplicates: 0 Warnings: 0

mysql> select* from ClientTable;
+-----+-----+-----+
| ClientId | Clientname | cid |
+-----+-----+-----+
| cl-1     | ABC Group  | c-1 |
| cl-2     | PQR        | c-1 |
| cl-3     | XYZ        | c-2 |
| cl-4     | tech altum | c-3 |
| cl-5     | Mnp        | c-5 |
+-----+-----+-----+
5 rows in set (0.00 sec)
```

QUERY SOLUTIONS:

ANS 1.

```
mysql> select * from Employee where EmpName like "p%";
+-----+-----+-----+-----+-----+-----+
| Empid | Empname | Department | ContactNo | EmailId | EmpHeadId |
+-----+-----+-----+-----+-----+-----+
| 102   | Priya   | E-104      | 1234567890 | priya@gmail.com | 103 |
+-----+-----+-----+-----+-----+-----+
1 row in set (0.06 sec)
```

ANS 2.

```
mysql> select * from EmpSalary where (IsPermanenet="Yes" AND Salary > 5000);
+-----+-----+-----+
| EmpId | Salary | IsPermanenet |
+-----+-----+-----+
| 102   | 10000  | Yes          |
+-----+-----+-----+
1 row in set (0.04 sec)
```

ANS 3.

```
mysql> select * from Employee where EmailId like "%gmail.com";
```

| Empid | Empname | Department | ContactNo | EmailId | EmpHeadId |
|-------|----------|------------|------------|--------------------|-----------|
| 101 | Isha | E-101 | 1234567890 | isha@gmail.com | 105 |
| 102 | Priya | E-104 | 1234567890 | priya@gmail.com | 103 |
| 103 | Neha | E-101 | 1234567890 | neha@gmail.com | 101 |
| 104 | Rahul | E-102 | 1234567890 | rahul@gmail.com | 105 |
| 105 | Abhishek | E-101 | 1234567890 | abhishek@gmail.com | 105 |

```
5 rows in set (0.00 sec)
```

ANS 4.

```
mysql> select * from EmpDept where Deptid="E-104" OR Deptid="E-102";
```

| Deptid | Deptname | Dept_off | DeptHead |
|--------|-------------|----------|----------|
| E-102 | Development | Tuesday | 101 |
| E-104 | Sales | Sunday | 104 |

```
2 rows in set (0.05 sec)
```

ANS 5.

```
mysql> select Deptname from EmpDept where Deptid="E-102";
```

| Deptname |
|-------------|
| Development |

```
1 row in set (0.03 sec)
```

ANS 6.

```
mysql> select sum(Salary) as Salary from EmpSalary where IsPermanenet="Yes";
```

| Salary |
|--------|
| 16200 |

```
1 row in set (0.05 sec)
```

ANS 7.

```
mysql> select * from Employee where EmpName like "%a";
+-----+-----+-----+-----+-----+-----+
| Empid | Empname | Department | ContactNo | EmailId | EmpHeadId |
+-----+-----+-----+-----+-----+-----+
| 101 | Isha | E-101 | 1234567890 | isha@gmail.com | 105 |
| 102 | Priya | E-104 | 1234567890 | priya@gmail.com | 103 |
| 103 | Neha | E-101 | 1234567890 | neha@gmail.com | 101 |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)
```

Ans 8.

```
mysql> select count(empid) as employee, projectid from empproject group by projectid;
+-----+-----+
| employee | projectid |
+-----+-----+
| 2 | p-1 |
| 1 | p-2 |
| 2 | p-4 |
+-----+-----+
3 rows in set (0.00 sec)
```

Ans 9.

```
mysql> select count(projectid) as project from empproject where startyear=2010;
+-----+
| project |
+-----+
| 2 |
+-----+
1 row in set (0.00 sec)
```

Ans 10.

```
mysql> select count(projectid) as project from empproject where startyear=endyear;
+-----+
| project |
+-----+
| 1 |
+-----+
1 row in set (0.00 sec)
```

Ans 11.

```
mysql> select Empname from Employee where Empname like '__h%';
+-----+
| Empname |
+-----+
| Isha    |
| Neha    |
| Rahul   |
| Abhishek|
+-----+
4 rows in set (0.00 sec)
```