Assignment 1

- **Name**: Ankush Mehta
- **Roll No.:** 31337
- **Batch:** L3

mysql> use t31337db;
Database changed
mysql> show tables;
Empty set (0.00 sec)

Creating Department Table

mysql> create table Dept(Dept_id int,dname varchar(10),dlocation varchar(20),primary key(Dept_id));
Query OK, 0 rows affected (0.06 sec)

```
mysql> desc Dept;
+-----------+-------------+------+-----+---------+-------+
| Field     | Type        | Null | Key | Default | Extra |
+-----------+-------------+------+-----+---------+-------+
| Dept_id   | int(11)     | NO   | PRI | 0       |       |
| dname     | varchar(10) | YES  |     | NULL    |       |
| dlocation | varchar(20) | YES  |     | NULL    |       |
+-----------+-------------+------+-----+---------+-------+
3 rows in set (0.00 sec)
```

Creating Employee Table

mysql> create table Employee(Emp_id int,Dept_id int,fname varchar(10),lname varchar(10),designation varchar(10),salary double,JoinDate DATE,primary key(Emp_id),foreign key(Dept_id) references Dept(Dept_id) on delete cascade);
Query OK, 0 rows affected (0.05 sec)

```
mysql> desc Employee;
+-------------+-------------+------+-----+---------+-------+
| Field       | Type        | Null | Key | Default | Extra |
+-------------+-------------+------+-----+---------+-------+
| Emp_id      | int(11)     | NO   | PRI | 0       |       |
| Dept_id     | int(11)     | YES  | MUL | NULL    |       |
| fname       | varchar(10) | YES  |     | NULL    |       |
| lname       | varchar(10) | YES  |     | NULL    |       |
| designation | varchar(10) | YES  |     | NULL    |       |
| salary      | double      | YES  |     | NULL    |       |
| JoinDate    | date        | YES  |     | NULL    |       |
+-------------+-------------+------+-----+---------+-------+
7 rows in set (0.00 sec)
```

Creating Project Table

```
mysql> create table Project
    -> (
    -> Proj_id int,
    -> Dept_id int,
    -> Pname varchar(10),
    -> Plocation varchar(10),
    -> Pcost double,
    -> Pyear YEAR,
    -> primary key(Proj_id),
    -> foreign key(Dept_id) references Dept(Dept_id) on delete cascade
    -> );
Query OK, 0 rows affected (0.05 sec)
```

```
mysql> desc Project;
+-----------+-------------+------+-----+---------+-------+
| Field     | Type        | Null | Key | Default | Extra |
+-----------+-------------+------+-----+---------+-------+
| Proj_id   | int(11)     | NO   | PRI | 0       |       |
| Dept_id   | int(11)     | YES  | MUL | NULL    |       |
| Pname     | varchar(10) | YES  |     | NULL    |       |
| Plocation | varchar(10) | YES  |     | NULL    |       |
| Pcost     | double      | YES  |     | NULL    |       |
| Pyear     | year(4)     | YES  |     | NULL    |       |
+-----------+-------------+------+-----+---------+-------+
6 rows in set (0.00 sec)
```

```
mysql> show tables;
```

Displaying the Tables In t31337 Database

```
+--------------------+
| Tables_in_t31323db |
+--------------------+
| Dept               |
| Employee           |
| Project            |
+--------------------+
3 rows in set (0.00 sec)
```

Inserting into Dept Table

mysql> insert into Dept values(1,'Computer','Pune');
Query OK, 1 row affected (0.01 sec)

mysql> insert into Dept values(2,'IT','Pune');
Query OK, 1 row affected (0.01 sec)

mysql> insert into Dept values(3,'ENTC','Mumbai');
Query OK, 1 row affected (0.01 sec)

mysql> insert into Dept values(4,'Civil','Nagpur');

Query OK, 1 row affected (0.00 sec)

mysql> insert into Dept values(5,'Auto Mobile','Nagpur');
Query OK, 1 row affected, 1 warning (0.02 sec)

```
mysql> select * from Dept;
+---------+-----------+-----------+
| Dept_id | dname     | dlocation |
+---------+-----------+-----------+
|       1 | Computer  | Pune      |
|       2 | IT        | Pune      |
|       3 | ENTC      | Mumbai    |
|       4 | Civil     | Nagpur    |
|       5 | Auto Mobil | Nagpur   |
+---------+-----------+-----------+
5 rows in set (0.00 sec)
```

Inserting into Employee Table

mysql> insert into Employee values(31323,1,'Gautam','Khaire','Software Engineer',350000.75, '2024-05-06');
Query OK, 1 row affected, 2 warnings (0.00 sec)

mysql> insert into Employee values(31324,1,'Shrikant','Kharat','Software Engineer',250000.75, '2024-10-06');
Query OK, 1 row affected, 2 warnings (0.01 sec)

mysql> insert into Employee values(31980,2,'Chanchal','Wadhwa','Software Engineer',3000000.75, '2024-12-09');
Query OK, 1 row affected, 2 warnings (0.02 sec)

mysql> insert into Employee values(31981,2,'Yash','Sonawane','Software Engineer',3500000.75, '2024-12-09');
Query OK, 1 row affected, 2 warnings (0.02 sec)

mysql> insert into Employee values(31307,1,'Shivam','Dhonde','Manager',3500000.75,'2024-10-15');
Query OK, 1 row affected (0.02 sec)

mysql> insert into Employee values(31337,1,'Ankush','Mehta','Manager',2500000.75,'2024-1-15');
Query OK, 1 row affected (0.01 sec)

mysql> insert into Employee values(31315,1,'Jay','Mehta','Product Manager',100000.75,'2024-9-15');
Query OK, 1 row affected, 1 warning (0.03 sec)

mysql> insert into Employee values(31390,5,'Yash','Jadhav','Site Engineer',104000.75,'2023-9-15');
Query OK, 1 row affected, 1 warning (0.01 sec)

mysql> insert into Employee values(31590,4,'Vishal','Kundan','Auto Engineer',103000.75,'2022-9-15');
Query OK, 1 row affected, 1 warning (0.01 sec)

mysql> insert into Employee values(41590,4,'Samyak','Kasturkar','Engineer',100200.05,'2022-10-15');
Query OK, 1 row affected (0.02 sec)

```
mysql> insert into Employee values(31309,1,'Tanmay','Jadhav','Software Engineer',200200.55,'2024-12-05');
Query OK, 1 row affected, 1 warning (0.01 sec)

mysql> select * from Employee;
+--------+---------+----------+-----------+-------------+------------+------------+
| Emp_id | Dept_id | fname    | lname     | designation | salary     | JoinDate   |
+--------+---------+----------+-----------+-------------+------------+------------+
|  31307 |       1 | Shivam   | Dhonde    | Manager     | 3500000.75 | 2024-10-15 |
|  31309 |       1 | Tanmay   | Jadhav    | Software E  |  200200.55 | 2024-12-05 |
|  31315 |       1 | Jay      | Mehta     | Product Ma  |  100000.75 | 2024-09-15 |
|  31323 |       1 | Gautam   | Khaire    | Software E  |  350000.75 | 2024-05-06 |
|  31324 |       1 | Shrikant | Kharat    | Software E  |  250000.75 | 2024-10-06 |
|  31337 |       1 | Ankush   | Mehta     | Manager     | 50000000   | 2024-01-15 |
|  31390 |       5 | Yash     | Jadhav    | Site Engin  |  104000.75 | 2023-09-15 |
|  31590 |       4 | Vishal   | Kundan    | Auto Engin  |  103000.75 | 2022-09-15 |
|  31980 |       2 | Chanchal | Wadhwa    | Software E  | 3000000.75 | 2024-12-09 |
|  31981 |       2 | Yash     | Sonawane  | Software E  | 3500000.75 | 2024-12-09 |
|  41590 |       4 | Samyak   | Kasturkar | Engineer    |  100200.05 | 2022-10-15 |
+--------+---------+----------+-----------+-------------+------------+------------+
11 rows in set (0.00 sec)
```

Inserting into Project Table

```
mysql> insert into Project values(1,1,'Mobile App','Pune',300000,2024);
Query OK, 1 row affected (0.04 sec)

mysql> insert into Project values(2,1,'Blockchain','Mumbai',500000,2022);
Query OK, 1 row affected (0.01 sec)

mysql> insert into Project values(3,3,'Building','Mumbai',200000,2022);
Query OK, 1 row affected (0.00 sec)
```

Displaying the Project Table

```
mysql> select * from Project;
+---------+---------+------------+-----------+--------+-------+
| Proj_id | Dept_id | Pname      | Plocation | Pcost  | Pyear |
+---------+---------+------------+-----------+--------+-------+
|       1 |       1 | Mobile App | Pune      | 300000 | 2024  |
|       2 |       1 | Blockchain | Mumbai    | 500000 | 2022  |
|       3 |       3 | Building   | Mumbai    | 200000 | 2022  |
+---------+---------+------------+-----------+--------+-------+
3 rows in set (0.00 sec)
```

Displaying the Department Table

```
mysql> select * from Dept;
+---------+-----------+-----------+
| Dept_id | dname     | dlocation |
+---------+-----------+-----------+
|       1 | Computer  | Pune      |
|       2 | IT        | Pune      |
|       3 | ENTC      | Mumbai    |
|       4 | Civil     | Nagpur    |
|       5 | Auto Mobil | Nagpur   |
```

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

Displaying the Department Table
```
mysql> select * from Employee;
+--------+---------+----------+-----------+-------------+------------+------------+
| Emp_id | Dept_id | fname    | lname     | designation | salary     | JoinDate   |
+--------+---------+----------+-----------+-------------+------------+------------+
| 31307  |       1 | Shivam   | Dhonde    | Manager     | 3500000.75 | 2024-10-15 |
| 31309  |       1 | Tanmay   | Jadhav    | Software E  | 200200.55  | 2024-12-05 |
| 31315  |       1 | Jay      | Mehta     | Product Ma  | 100000.75  | 2024-09-15 |
| 31323  |       1 | Gautam   | Khaire    | Software E  | 350000.75  | 2024-05-06 |
| 31324  |       1 | Shrikant | Kharat    | Software E  | 250000.75  | 2024-10-06 |
| 31337  |       1 | Ankush   | Mehta     | Manager     | 50000000   | 2024-01-15 |
| 31390  |       5 | Yash     | Jadhav    | Site Engin  | 104000.75  | 2023-09-15 |
| 31590  |       4 | Vishal   | Kundan    | Auto Engin  | 103000.75  | 2022-09-15 |
| 31980  |       2 | Chanchal | Wadhwa    | Software E  | 3000000.75 | 2024-12-09 |
| 31981  |       2 | Yash     | Sonawane  | Software E  | 3500000.75 | 2024-12-09 |
| 41590  |       4 | Samyak   | Kasturkar | Engineer    | 100200.05  | 2022-10-15 |
+--------+---------+----------+-----------+-------------+------------+------------+
11 rows in set (0.01 sec)
mysql> insert into Employee
values(31333,1,'Pradnya','Kumar','Manager',98129.89,2024-10-07);
Query OK, 1 row affected, 1 warning (0.02 sec)


---------------------------------------------------------------------------
----------------------------------------------------------------------
```

Assignment No. 2B Queries :-

Q2. Display all Employee details with Department 'Computer' and 'IT' and Employee first name starting with 'p' or 'h'.

```
mysql> select * from Employee where Dept_id in (1,2) and fname like 'P%'
or fname like 'H%';

+--------+---------+---------+-------+-------------+----------+------------+
| Emp_id | Dept_id | fname   | lname | designation | salary   | JoinDate   |
+--------+---------+---------+-------+-------------+----------+------------+
| 31333  |       1 | Pradnya | Kumar | Manager     | 98129.89 | 2020-10-07 |
| 31335  |       2 | Pranjal | Deasi | Product Ma  | 90329.89 | 2020-10-07 |
+--------+---------+---------+-------+-------------+----------+------------+
2 rows in set (0.00 sec)
```

Q3. Lists the number of different Employee Positions.

```
mysql> select distinct designation from Employee;
+-------------+
| designation |
+-------------+
| Manager     |
| Software E  |
| Product Ma  |
| Site Engin  |
| Auto Engin  |
| Engineer    |
```

```
+-------------+
6 rows in set (0.00 sec)
mysql> select COUNT(designation) from Employee;
+--------------------+
| COUNT(designation) |
+--------------------+
|                 13 |
+--------------------+
1 row in set (0.00 sec)

mysql> select COUNT(distinct designation) from Employee;
+-----------------------------+
| COUNT(distinct designation) |
+-----------------------------+
|                           6 |
+-----------------------------+
1 row in set (0.00 sec)
```

Q4. Give 10% increase in Salary of the Employee whose joinDate before 2015.

```
mysql> update Employee set JoinDate='2013-10-07' where Emp_id=31335;
Query OK, 1 row affected (0.02 sec)
Rows matched: 1  Changed: 1  Warnings: 0
mysql> select 1.1*salary from Employee where JoinDate<='2015-01-01';
+------------+
| 1.1*salary |
+------------+
|  99362.879 |
+------------+
1 row in set (0.00 sec)
mysql> update Employee set salary=1.1*salary WHERE JoinDate<='2015-01-
01';
Query OK, 1 row affected (0.02 sec)
Rows matched: 1  Changed: 1  Warnings: 0
mysql> select * from Employee WHERE JoinDate<='2015-01-01';
+--------+---------+---------+-------+-------------+-----------+------------
+
| Emp_id | Dept_id | fname   | lname | designation | salary    | JoinDate
|
+--------+---------+---------+-------+-------------+-----------+------------
+
|  31335 |       2 | Pranjal | Deasi | Product Ma  | 99362.879 | 2013-10-07
|
+--------+---------+---------+-------+-------------+-----------+------------
+
1 row in set (0.00 sec)
```

Q5. Delete all the department details having location as 'Mumbai'.

```
mysql> select * from Dept;
+---------+------------+-----------+
| Dept_id | dname      | dlocation |
+---------+------------+-----------+
```

```
|       1 | Computer   | Pune      |
|       2 | IT         | Pune      |
|       3 | ENTC       | Mumbai    |
|       4 | Civil      | Nagpur    |
|       5 | Auto Mobil | Nagpur    |
+---------+------------+-----------+
5 rows in set (0.00 sec)

mysql> delete from Dept where dlocation='Mumbai';
Query OK, 1 row affected (0.03 sec)

mysql> select * from Dept;
+---------+------------+-----------+
| Dept_id | dname      | dlocation |
+---------+------------+-----------+
|       1 | Computer   | Pune      |
|       2 | IT         | Pune      |
|       4 | Civil      | Nagpur    |
|       5 | Auto Mobil | Nagpur    |
+---------+------------+-----------+
4 rows in set (0.00 sec)
```

Q6. Find the names of Projects with location 'Pune'.

```
mysql> select Pname from Project where Plocation='Pune';
+------------+
| Pname      |
+------------+
| Mobile App |
+------------+
1 row in set (0.00 sec)
```

Q7. Find the project having cost in between 100000 to 500000.

```
mysql> select Pcost from Project where Pcost Between 100000 AND 500000;
+--------+
| Pcost  |
+--------+
| 300000 |
| 500000 |
| 200000 |
+--------+
3 rows in set (0.00 sec)
```

Q8. Find the project having maximum price and find average Project cost.

```
mysql> select MAX(Pcost) from Project;
+------------+
| MAX(Pcost) |
+------------+
|     500000 |
+------------+
1 row in set (0.00 sec)
mysql> select Pcost from Project ORDER BY Pcost DESC;
```

```
+--------+
| Pcost  |
+--------+
| 500000 |
| 300000 |
| 200000 |
+--------+
3 rows in set (0.00 sec)

mysql> select AVG(Pcost) from Project;
+-------------------+
| AVG(Pcost)        |
+-------------------+
| 333333.3333333333 |
+-------------------+
1 row in set (0.00 sec)
```

Q9. Display all employees with Emp_id and Emp name in descending order.

```
mysql> select Emp_id,fname,lname from Employee ORDER BY Emp_id desc;
+--------+----------+-----------+
| Emp_id | fname    | lname     |
+--------+----------+-----------+
|  41590 | Samyak   | Kasturkar |
|  31981 | Yash     | Sonawane  |
|  31980 | Chanchal | Wadhwa    |
|  31590 | Vishal   | Kundan    |
|  31390 | Yash     | Jadhav    |
|  31337 | Ankush   | Mehta     |
|  31335 | Pranjal  | Deasi     |
|  31333 | Pradnya  | Kumar     |
|  31324 | Shrikant | Kharat    |
|  31323 | Gautam   | Khaire    |
|  31315 | Jay      | Mehta     |
|  31309 | Tanmay   | Jadhav    |
|  31307 | Shivam   | Dhonde    |
+--------+----------+-----------+
13 rows in set (0.09 sec)
```

Q10. Display Proj_name,Plocation,Pcost of all project started in 2004,2005,2007.

```
mysql> select Pname,Plocation,Pcost from Project WHERE Pyear=2004 OR
Pyear=2005 OR Pyear=2007;
Empty set (0.00 sec)
mysql> select Pname,Plocation,Pcost from Project WHERE Pyear=2004 OR
Pyear=2005 OR Pyear=2007 OR Pyear=2022;
+------------+-----------+--------+
| Pname      | Plocation | Pcost  |
+------------+-----------+--------+
| Blockchain | Mumbai    | 500000 |
| Building   | Mumbai    | 200000 |
+------------+-----------+--------+
```