MONGO DB

Assignment-1

Name: P CHARAN RAGAVENDRA   Reg No: 21BCE1932

Creating Table and Inserting records:

CREATE DATABASE ORG1;

SHOW DATABASES;

USE ORG1;

CREATE TABLE Worker (

WORKER_ID INT NOT NULL PRIMARY KEY AUTO_INCREMENT,

FIRST_NAME CHAR(25),

LAST_NAME CHAR(25),

SALARY INT(15),

JOINING_DATE DATETIME,

DEPARTMENT CHAR(25)

);

INSERT INTO Worker

(WORKER_ID, FIRST_NAME, LAST_NAME, SALARY, JOINING_DATE,

DEPARTMENT) VALUES

(001, 'Monika', 'Arora', 100000, '14-02-20

09.00.00', 'HR'),

(002, 'Niharika', 'Verma', 80000, '14-06-11

09.00.00', 'Admin'),

(003, 'Vishal', 'Singhal', 300000, '14-02-20

09.00.00', 'HR'),

(004, 'Amitabh', 'Singh', 500000, '14-02-20

09.00.00', 'Admin'),

(005, 'Vivek', 'Bhati', 500000, '14-06-11

09.00.00', 'Admin'),

(006, 'Vipul', 'Diwan', 200000, '14-06-11

09.00.00', 'Account'),

(007, 'Satish', 'Kumar', 75000, '14-01-20

09.00.00', 'Account'),

```sql
(008, 'Geetika', 'Chauhan', 90000, '14-04-11
09.00.00', 'Admin');


CREATE TABLE Bonus (
WORKER_REF_ID INT,
BONUS_AMOUNT INT(10),
BONUS_DATE DATETIME,
FOREIGN KEY (WORKER_REF_ID)
REFERENCES Worker(WORKER_ID)
 ON DELETE CASCADE
);
INSERT INTO Bonus
(WORKER_REF_ID, BONUS_AMOUNT, BONUS_DATE) VALUES
(001, 5000, '16-02-20'),
(002, 3000, '16-06-11'),
(003, 4000, '16-02-20'),
(001, 4500, '16-02-20'),
(002, 3500, '16-06-11');
CREATE TABLE Title (
WORKER_REF_ID INT,
WORKER_TITLE CHAR(25),
AFFECTED_FROM DATETIME,
FOREIGN KEY (WORKER_REF_ID)
REFERENCES Worker(WORKER_ID)
 ON DELETE CASCADE
);
INSERT INTO Title
(WORKER_REF_ID, WORKER_TITLE, AFFECTED_FROM) VALUES
(001, 'Manager', '2016-02-20 00:00:00'),
(002, 'Executive', '2016-06-11 00:00:00'),
(008, 'Executive', '2016-06-11 00:00:00'),
(005, 'Manager', '2016-06-11 00:00:00'),
```

(004, 'Asst. Manager', '2016-06-11 00:00:00'),

(007, 'Executive', '2016-06-11 00:00:00'),

(006, 'Lead', '2016-06-11 00:00:00'),

(003, 'Lead', '2016-06-11 00:00:00');

ALTER TABLE Workers RENAME TO Workers;

Questions:

1) SELECT FIRST_NAME AS WORKER_NAME FROM Worker;

```
mysql> SELECT FIRST_NAME AS WORKER_NAME FROM Worker;
+-------------+
| WORKER_NAME |
+-------------+
| Monika      |
| Niharika    |
| Vishal      |
| Amitabh     |
| Vivek       |
| Vipul       |
| Satish      |
| Geetika     |
+-------------+
8 rows in set (0.01 sec)
```

2) SELECT UPPER(FIRST_NAME) FROM Worker;

```
mysql> SELECT UPPER(FIRST_NAME) FROM Worker;
+-------------------+
| UPPER(FIRST_NAME) |
+-------------------+
| MONIKA            |
| NIHARIKA          |
| VISHAL            |
| AMITABH           |
| VIVEK             |
| VIPUL             |
| SATISH            |
| GEETIKA           |
+-------------------+
8 rows in set (0.06 sec)
```

3) SELECT DISTINCT DEPARTMENT FROM Worker;

```
mysql> SELECT DISTINCT DEPARTMENT FROM Worker;
+------------+
| DEPARTMENT |
+------------+
| HR         |
| Admin      |
| Account    |
+------------+
3 rows in set (0.03 sec)
```

4) SELECT SUBSTRING(FIRST_NAME, 1, 3) FROM Worker;

```
mysql> SELECT SUBSTRING(FIRST_NAME, 1, 3) FROM Worker;
+----------------------------+
| SUBSTRING(FIRST_NAME, 1, 3) |
+----------------------------+
| Mon                        |
| Nih                        |
| Vis                        |
| Ami                        |
| Viv                        |
| Vip                        |
| Sat                        |
| Gee                        |
+----------------------------+
8 rows in set (0.09 sec)
```

5) SELECT POSITION('a' IN FIRST_NAME) FROM Worker WHERE FIRST_NAME = 'Amitabh';

```
mysql> SELECT POSITION('a' IN FIRST_NAME) FROM Worker WHERE FIRST_NAME = 'Amitabh';
+---------------------------+
| POSITION('a' IN FIRST_NAME) |
+---------------------------+
|                         1 |
+---------------------------+
1 row in set (0.01 sec)
```

6) SELECT RTRIM(FIRST_NAME) FROM Worker;

```
mysql> SELECT RTRIM(FIRST_NAME) FROM Worker;
+-------------------+
| RTRIM(FIRST_NAME) |
+-------------------+
| Monika            |
| Niharika          |
| Vishal            |
| Amitabh           |
| Vivek             |
| Vipul             |
| Satish            |
| Geetika           |
+-------------------+
8 rows in set (0.09 sec)
```

7) SELECT LTRIM(DEPARTMENT) FROM Worker;

```
mysql> SELECT LTRIM(DEPARTMENT) FROM Worker;
+-------------------+
| LTRIM(DEPARTMENT) |
+-------------------+
| HR                |
| Admin             |
| HR                |
| Admin             |
| Admin             |
| Account           |
| Account           |
| Admin             |
+-------------------+
8 rows in set (0.00 sec)
```

8) SELECT DISTINCT DEPARTMENT, LENGTH(DEPARTMENT) AS LengthOfDepartment FROM Worker;

```
mysql> SELECT DISTINCT DEPARTMENT, LENGTH(DEPARTMENT) AS LengthOfDepartment FROM Worker;
+------------+--------------------+
| DEPARTMENT | LengthOfDepartment |
+------------+--------------------+
| HR         |                  2 |
| Admin      |                  5 |
| Account    |                  7 |
+------------+--------------------+
3 rows in set (0.09 sec)
```

9) SELECT REPLACE(FIRST_NAME, 'a', 'A') FROM Worker;

```
mysql> SELECT REPLACE(FIRST_NAME, 'a', 'A') FROM Worker;
+-------------------------------+
| REPLACE(FIRST_NAME, 'a', 'A') |
+-------------------------------+
| MonikA                        |
| NihArikA                      |
| VishAl                        |
| AmitAbh                       |
| Vivek                         |
| Vipul                         |
| SAtish                        |
| GeetikA                       |
+-------------------------------+
8 rows in set (0.00 sec)
```

10) SELECT CONCAT(FIRST_NAME, ' ', LAST_NAME) AS COMPLETE_NAME FROM Worker;

```
mysql> SELECT CONCAT(FIRST_NAME, ' ', LAST_NAME) AS COMPLETE_NAME FROM Worker;
+-----------------+
| COMPLETE_NAME   |
+-----------------+
| Monika Arora    |
| Niharika Verma  |
| Vishal Singhal  |
| Amitabh Singh   |
| Vivek Bhati     |
| Vipul Diwan     |
| Satish Kumar    |
| Geetika Chauhan |
+-----------------+
8 rows in set (0.11 sec)
```

11) SELECT * FROM Worker ORDER BY FIRST_NAME ASC;

```
mysql> SELECT * FROM Worker ORDER BY FIRST_NAME ASC;
+-----------+------------+-----------+--------+---------------------+------------+
| WORKER_ID | FIRST_NAME | LAST_NAME | SALARY | JOINING_DATE        | DEPARTMENT |
+-----------+------------+-----------+--------+---------------------+------------+
|         4 | Amitabh    | Singh     | 500000 | 2014-02-20 09:00:00 | Admin      |
|         8 | Geetika    | Chauhan   |  90000 | 2014-04-11 09:00:00 | Admin      |
|         1 | Monika     | Arora     | 100000 | 2014-02-20 09:00:00 | HR         |
|         2 | Niharika   | Verma     |  80000 | 2014-06-11 09:00:00 | Admin      |
|         7 | Satish     | Kumar     |  75000 | 2014-01-20 09:00:00 | Account    |
|         6 | Vipul      | Diwan     | 200000 | 2014-06-11 09:00:00 | Account    |
|         3 | Vishal     | Singhal   | 300000 | 2014-02-20 09:00:00 | HR         |
|         5 | Vivek      | Bhati     | 500000 | 2014-06-11 09:00:00 | Admin      |
+-----------+------------+-----------+--------+---------------------+------------+
8 rows in set (0.09 sec)
```

12) SELECT * FROM Worker ORDER BY FIRST_NAME ASC, DEPARTMENT DESC;

```
mysql> SELECT * FROM Worker ORDER BY FIRST_NAME ASC, DEPARTMENT DESC;
+-----------+------------+-----------+--------+---------------------+------------+
| WORKER_ID | FIRST_NAME | LAST_NAME | SALARY | JOINING_DATE        | DEPARTMENT |
+-----------+------------+-----------+--------+---------------------+------------+
|         4 | Amitabh    | Singh     | 500000 | 2014-02-20 09:00:00 | Admin      |
|         8 | Geetika    | Chauhan   |  90000 | 2014-04-11 09:00:00 | Admin      |
|         1 | Monika     | Arora     | 100000 | 2014-02-20 09:00:00 | HR         |
|         2 | Niharika   | Verma     |  80000 | 2014-06-11 09:00:00 | Admin      |
|         7 | Satish     | Kumar     |  75000 | 2014-01-20 09:00:00 | Account    |
|         6 | Vipul      | Diwan     | 200000 | 2014-06-11 09:00:00 | Account    |
|         3 | Vishal     | Singhal   | 300000 | 2014-02-20 09:00:00 | HR         |
|         5 | Vivek      | Bhati     | 500000 | 2014-06-11 09:00:00 | Admin      |
+-----------+------------+-----------+--------+---------------------+------------+
8 rows in set (0.00 sec)
```

13) SELECT * FROM Worker WHERE FIRST_NAME IN ('Vipul', 'Satish');

```
mysql> SELECT * FROM Worker WHERE FIRST_NAME IN ('Vipul', 'Satish');
+-----------+------------+-----------+--------+---------------------+------------+
| WORKER_ID | FIRST_NAME | LAST_NAME | SALARY | JOINING_DATE        | DEPARTMENT |
+-----------+------------+-----------+--------+---------------------+------------+
|         6 | Vipul      | Diwan     | 200000 | 2014-06-11 09:00:00 | Account    |
|         7 | Satish     | Kumar     |  75000 | 2014-01-20 09:00:00 | Account    |
+-----------+------------+-----------+--------+---------------------+------------+
2 rows in set (0.00 sec)
```

14) SELECT * FROM Worker WHERE FIRST_NAME NOT IN ('Vipul', 'Satish');

```
mysql> SELECT * FROM Worker WHERE FIRST_NAME NOT IN ('Vipul', 'Satish');
+-----------+------------+-----------+--------+---------------------+------------+
| WORKER_ID | FIRST_NAME | LAST_NAME | SALARY | JOINING_DATE        | DEPARTMENT |
+-----------+------------+-----------+--------+---------------------+------------+
|         1 | Monika     | Arora     | 100000 | 2014-02-20 09:00:00 | HR         |
|         2 | Niharika   | Verma     |  80000 | 2014-06-11 09:00:00 | Admin      |
|         3 | Vishal     | Singhal   | 300000 | 2014-02-20 09:00:00 | HR         |
|         4 | Amitabh    | Singh     | 500000 | 2014-02-20 09:00:00 | Admin      |
|         5 | Vivek      | Bhati     | 500000 | 2014-06-11 09:00:00 | Admin      |
|         8 | Geetika    | Chauhan   |  90000 | 2014-04-11 09:00:00 | Admin      |
+-----------+------------+-----------+--------+---------------------+------------+
6 rows in set (0.00 sec)
```

15) SELECT * FROM Worker WHERE DEPARTMENT = 'Admin';

```
mysql> SELECT * FROM Worker WHERE DEPARTMENT = 'Admin';
+-----------+------------+-----------+--------+---------------------+------------+
| WORKER_ID | FIRST_NAME | LAST_NAME | SALARY | JOINING_DATE        | DEPARTMENT |
+-----------+------------+-----------+--------+---------------------+------------+
|         2 | Niharika   | Verma     |  80000 | 2014-06-11 09:00:00 | Admin      |
|         4 | Amitabh    | Singh     | 500000 | 2014-02-20 09:00:00 | Admin      |
|         5 | Vivek      | Bhati     | 500000 | 2014-06-11 09:00:00 | Admin      |
|         8 | Geetika    | Chauhan   |  90000 | 2014-04-11 09:00:00 | Admin      |
+-----------+------------+-----------+--------+---------------------+------------+
4 rows in set (0.00 sec)
```

16) SELECT * FROM Worker WHERE FIRST_NAME LIKE '%a%';

```
mysql> SELECT * FROM Worker WHERE FIRST_NAME LIKE '%a%';
+-----------+------------+-----------+--------+---------------------+------------+
| WORKER_ID | FIRST_NAME | LAST_NAME | SALARY | JOINING_DATE        | DEPARTMENT |
+-----------+------------+-----------+--------+---------------------+------------+
|         1 | Monika     | Arora     | 100000 | 2014-02-20 09:00:00 | HR         |
|         2 | Niharika   | Verma     |  80000 | 2014-06-11 09:00:00 | Admin      |
|         3 | Vishal     | Singhal   | 300000 | 2014-02-20 09:00:00 | HR         |
|         4 | Amitabh    | Singh     | 500000 | 2014-02-20 09:00:00 | Admin      |
|         7 | Satish     | Kumar     |  75000 | 2014-01-20 09:00:00 | Account    |
|         8 | Geetika    | Chauhan   |  90000 | 2014-04-11 09:00:00 | Admin      |
+-----------+------------+-----------+--------+---------------------+------------+
6 rows in set (0.00 sec)
```

17) SELECT * FROM Worker WHERE FIRST_NAME LIKE '%a';

```
mysql> SELECT * FROM Worker WHERE FIRST_NAME LIKE '%a';
+-----------+------------+-----------+--------+---------------------+------------+
| WORKER_ID | FIRST_NAME | LAST_NAME | SALARY | JOINING_DATE        | DEPARTMENT |
+-----------+------------+-----------+--------+---------------------+------------+
|         1 | Monika     | Arora     | 100000 | 2014-02-20 09:00:00 | HR         |
|         2 | Niharika   | Verma     |  80000 | 2014-06-11 09:00:00 | Admin      |
|         8 | Geetika    | Chauhan   |  90000 | 2014-04-11 09:00:00 | Admin      |
+-----------+------------+-----------+--------+---------------------+------------+
3 rows in set (0.00 sec)
```

18) SELECT * FROM Worker WHERE FIRST_NAME LIKE '_____h';

```
mysql> SELECT * FROM Worker WHERE FIRST_NAME LIKE '_____h';
+-----------+------------+-----------+--------+---------------------+------------+
| WORKER_ID | FIRST_NAME | LAST_NAME | SALARY | JOINING_DATE        | DEPARTMENT |
+-----------+------------+-----------+--------+---------------------+------------+
|         7 | Satish     | Kumar     |  75000 | 2014-01-20 09:00:00 | Account    |
+-----------+------------+-----------+--------+---------------------+------------+
1 row in set (0.00 sec)
```

19) SELECT * FROM Worker WHERE SALARY BETWEEN 100000 AND 500000;

```
mysql> SELECT * FROM Worker WHERE SALARY BETWEEN 100000 AND 500000;
+-----------+------------+-----------+--------+---------------------+------------+
| WORKER_ID | FIRST_NAME | LAST_NAME | SALARY | JOINING_DATE        | DEPARTMENT |
+-----------+------------+-----------+--------+---------------------+------------+
|         1 | Monika     | Arora     | 100000 | 2014-02-20 09:00:00 | HR         |
|         3 | Vishal     | Singhal   | 300000 | 2014-02-20 09:00:00 | HR         |
|         4 | Amitabh    | Singh     | 500000 | 2014-02-20 09:00:00 | Admin      |
|         5 | Vivek      | Bhati     | 500000 | 2014-06-11 09:00:00 | Admin      |
|         6 | Vipul      | Diwan     | 200000 | 2014-06-11 09:00:00 | Account    |
+-----------+------------+-----------+--------+---------------------+------------+
5 rows in set (0.09 sec)
```

20) SELECT * FROM Worker WHERE JOINING_DATE BETWEEN '2014-02-01' AND '2014-02-28';

```
mysql> SELECT * FROM Worker WHERE JOINING_DATE BETWEEN '2014-02-01' AND '2014-02-28';
+-----------+------------+-----------+--------+---------------------+------------+
| WORKER_ID | FIRST_NAME | LAST_NAME | SALARY | JOINING_DATE        | DEPARTMENT |
+-----------+------------+-----------+--------+---------------------+------------+
|         1 | Monika     | Arora     | 100000 | 2014-02-20 09:00:00 | HR         |
|         3 | Vishal     | Singhal   | 300000 | 2014-02-20 09:00:00 | HR         |
|         4 | Amitabh    | Singh     | 500000 | 2014-02-20 09:00:00 | Admin      |
+-----------+------------+-----------+--------+---------------------+------------+
3 rows in set (0.00 sec)
```

21) SELECT COUNT(*) FROM Worker WHERE DEPARTMENT = 'Admin';

```
mysql> SELECT COUNT(*) FROM Worker WHERE DEPARTMENT = 'Admin';
+----------+
| COUNT(*) |
+----------+
|        4 |
+----------+
1 row in set (0.09 sec)
```

22) SELECT FIRST_NAME FROM Worker WHERE SALARY BETWEEN 50000 AND 100000;

```
mysql> SELECT FIRST_NAME FROM Worker WHERE SALARY BETWEEN 50000 AND 100000;
+------------+
| FIRST_NAME |
+------------+
| Monika     |
| Niharika   |
| Satish     |
| Geetika    |
+------------+
4 rows in set (0.00 sec)
```

23) SELECT DEPARTMENT, COUNT(*) AS 'Number of Workers' FROM Worker GROUP BY DEPARTMENT ORDER BY COUNT(*) DESC;

```
mysql> SELECT DEPARTMENT, COUNT(*) AS 'Number of Workers' FROM Worker GROUP BY DEPARTMENT ORDER BY COUNT(*) DESC;
+------------+-------------------+
| DEPARTMENT | Number of Workers |
+------------+-------------------+
| Admin      |                 4 |
| HR         |                 2 |
| Account    |                 2 |
+------------+-------------------+
3 rows in set (0.09 sec)
```

24) SELECT * FROM Worker, title WHERE worker_title = 'Manager';

```
mysql> SELECT * FROM Worker, title WHERE worker_title = 'Manager';
+-----------+------------+-----------+--------+---------------------+------------+---------------+--------------+---------------------+
| WORKER_ID | FIRST_NAME | LAST_NAME | SALARY | JOINING_DATE        | DEPARTMENT | WORKER_REF_ID | WORKER_TITLE | AFFECTED_FROM       |
+-----------+------------+-----------+--------+---------------------+------------+---------------+--------------+---------------------+
|         1 | Monika     | Arora     | 100000 | 2014-02-20 09:00:00 | HR         |             5 | Manager      | 2016-06-11 00:00:00 |
|         1 | Monika     | Arora     | 100000 | 2014-02-20 09:00:00 | HR         |             1 | Manager      | 2016-02-20 00:00:00 |
|         2 | Niharika   | Verma     |  80000 | 2014-06-11 09:00:00 | Admin      |             5 | Manager      | 2016-06-11 00:00:00 |
|         2 | Niharika   | Verma     |  80000 | 2014-06-11 09:00:00 | Admin      |             1 | Manager      | 2016-02-20 00:00:00 |
|         3 | Vishal     | Singhal   | 300000 | 2014-02-20 09:00:00 | HR         |             5 | Manager      | 2016-06-11 00:00:00 |
|         3 | Vishal     | Singhal   | 300000 | 2014-02-20 09:00:00 | HR         |             1 | Manager      | 2016-02-20 00:00:00 |
|         4 | Amitabh    | Singh     | 500000 | 2014-02-20 09:00:00 | Admin      |             5 | Manager      | 2016-06-11 00:00:00 |
|         4 | Amitabh    | Singh     | 500000 | 2014-02-20 09:00:00 | Admin      |             1 | Manager      | 2016-02-20 00:00:00 |
|         5 | Vivek      | Bhati     | 500000 | 2014-06-11 09:00:00 | Admin      |             5 | Manager      | 2016-06-11 00:00:00 |
|         5 | Vivek      | Bhati     | 500000 | 2014-06-11 09:00:00 | Admin      |             1 | Manager      | 2016-02-20 00:00:00 |
|         6 | Vipul      | Diwan     | 200000 | 2014-06-11 09:00:00 | Account    |             5 | Manager      | 2016-06-11 00:00:00 |
|         6 | Vipul      | Diwan     | 200000 | 2014-06-11 09:00:00 | Account    |             1 | Manager      | 2016-02-20 00:00:00 |
|         7 | Satish     | Kumar     |  75000 | 2014-01-20 09:00:00 | Account    |             5 | Manager      | 2016-06-11 00:00:00 |
|         7 | Satish     | Kumar     |  75000 | 2014-01-20 09:00:00 | Account    |             1 | Manager      | 2016-02-20 00:00:00 |
|         8 | Geetika    | Chauhan   |  90000 | 2014-04-11 09:00:00 | Admin      |             5 | Manager      | 2016-06-11 00:00:00 |
|         8 | Geetika    | Chauhan   |  90000 | 2014-04-11 09:00:00 | Admin      |             1 | Manager      | 2016-02-20 00:00:00 |
+-----------+------------+-----------+--------+---------------------+------------+---------------+--------------+---------------------+
16 rows in set (0.10 sec)
```

25) SELECT FIRST_NAME, LAST_NAME, COUNT(*) FROM Worker GROUP BY FIRST_NAME, LAST_NAME HAVING COUNT(*) > 1;

```
mysql> SELECT FIRST_NAME, LAST_NAME, COUNT(*)
    -> FROM Worker
    -> GROUP BY FIRST_NAME, LAST_NAME
    -> HAVING COUNT(*) > 1;
Empty set (0.09 sec)
```

26) SELECT * FROM Worker WHERE WORKER_ID % 2 != 0;

```
mysql> SELECT * FROM Worker WHERE WORKER_ID % 2 != 0;
+-----------+------------+-----------+--------+---------------------+------------+
| WORKER_ID | FIRST_NAME | LAST_NAME | SALARY | JOINING_DATE        | DEPARTMENT |
+-----------+------------+-----------+--------+---------------------+------------+
|         1 | Monika     | Arora     | 100000 | 2014-02-20 09:00:00 | HR         |
|         3 | Vishal     | Singhal   | 300000 | 2014-02-20 09:00:00 | HR         |
|         5 | Vivek      | Bhati     | 500000 | 2014-06-11 09:00:00 | Admin      |
|         7 | Satish     | Kumar     |  75000 | 2014-01-20 09:00:00 | Account    |
+-----------+------------+-----------+--------+---------------------+------------+
4 rows in set (0.09 sec)
```

27) SELECT * FROM Worker WHERE WORKER_ID % 2 = 0;

```
mysql> SELECT * FROM Worker WHERE WORKER_ID % 2 = 0;
+-----------+------------+-----------+--------+---------------------+------------+
| WORKER_ID | FIRST_NAME | LAST_NAME | SALARY | JOINING_DATE        | DEPARTMENT |
+-----------+------------+-----------+--------+---------------------+------------+
|         2 | Niharika   | Verma     |  80000 | 2014-06-11 09:00:00 | Admin      |
|         4 | Amitabh    | Singh     | 500000 | 2014-02-20 09:00:00 | Admin      |
|         6 | Vipul      | Diwan     | 200000 | 2014-06-11 09:00:00 | Account    |
|         8 | Geetika    | Chauhan   |  90000 | 2014-04-11 09:00:00 | Admin      |
+-----------+------------+-----------+--------+---------------------+------------+
4 rows in set (0.00 sec)
```

28) CREATE TABLE NewTable LIKE Worker;

```
mysql> CREATE TABLE NewTable LIKE Worker;
Query OK, 0 rows affected (0.17 sec)

mysql> Desc newtable
    -> ;
+--------------+----------+------+-----+---------+----------------+
| Field        | Type     | Null | Key | Default | Extra          |
+--------------+----------+------+-----+---------+----------------+
| WORKER_ID    | int      | NO   | PRI | NULL    | auto_increment |
| FIRST_NAME   | char(25) | YES  |     | NULL    |                |
| LAST_NAME    | char(25) | YES  |     | NULL    |                |
| SALARY       | int      | YES  |     | NULL    |                |
| JOINING_DATE | datetime | YES  |     | NULL    |                |
| DEPARTMENT   | char(25) | YES  |     | NULL    |                |
+--------------+----------+------+-----+---------+----------------+
6 rows in set (0.12 sec)
```

29) SELECT w.* FROM Worker w INNER JOIN Bonus b ON w.WORKER_ID = b.WORKER_REF_ID;

```
mysql> SELECT w.* FROM Worker w INNER JOIN Bonus b ON w.WORKER_ID = b.WORKER_REF_ID;
+-----------+------------+-----------+--------+---------------------+------------+
| WORKER_ID | FIRST_NAME | LAST_NAME | SALARY | JOINING_DATE        | DEPARTMENT |
+-----------+------------+-----------+--------+---------------------+------------+
|         1 | Monika     | Arora     | 100000 | 2014-02-20 09:00:00 | HR         |
|         1 | Monika     | Arora     | 100000 | 2014-02-20 09:00:00 | HR         |
|         2 | Niharika   | Verma     |  80000 | 2014-06-11 09:00:00 | Admin      |
|         2 | Niharika   | Verma     |  80000 | 2014-06-11 09:00:00 | Admin      |
|         3 | Vishal     | Singhal   | 300000 | 2014-02-20 09:00:00 | HR         |
+-----------+------------+-----------+--------+---------------------+------------+
5 rows in set (0.02 sec)
```

30) SELECT * FROM Worker WHERE WORKER_ID NOT IN (SELECT WORKER_ID
    FROM Bonus);

```
mysql> SELECT * FROM Worker WHERE WORKER_ID NOT IN (SELECT WORKER_ID FROM Bonus);
Empty set (0.11 sec)
```

31) SELECT NOW();

```
mysql> select now();
+---------------------+
| now()               |
+---------------------+
| 2024-06-08 21:32:13 |
+---------------------+
1 row in set (0.09 sec)
```

32) SELECT * FROM Worker LIMIT 10;

```
mysql> SELECT * FROM Worker LIMIT 10;
+-----------+------------+-----------+--------+---------------------+------------+
| WORKER_ID | FIRST_NAME | LAST_NAME | SALARY | JOINING_DATE        | DEPARTMENT |
+-----------+------------+-----------+--------+---------------------+------------+
|         1 | Monika     | Arora     | 100000 | 2014-02-20 09:00:00 | HR         |
|         2 | Niharika   | Verma     |  80000 | 2014-06-11 09:00:00 | Admin      |
|         3 | Vishal     | Singhal   | 300000 | 2014-02-20 09:00:00 | HR         |
|         4 | Amitabh    | Singh     | 500000 | 2014-02-20 09:00:00 | Admin      |
|         5 | Vivek      | Bhati     | 500000 | 2014-06-11 09:00:00 | Admin      |
|         6 | Vipul      | Diwan     | 200000 | 2014-06-11 09:00:00 | Account    |
|         7 | Satish     | Kumar     |  75000 | 2014-01-20 09:00:00 | Account    |
|         8 | Geetika    | Chauhan   |  90000 | 2014-04-11 09:00:00 | Admin      |
+-----------+------------+-----------+--------+---------------------+------------+
8 rows in set (0.00 sec)
```

33) SELECT DISTINCT SALARY FROM Worker ORDER BY SALARY DESC LIMIT 1
    OFFSET 4;

```
mysql> SELECT DISTINCT SALARY FROM Worker ORDER BY SALARY DESC LIMIT 1 OFFSET 4;
+--------+
| SALARY |
+--------+
|  90000 |
+--------+
1 row in set (0.00 sec)
```

34) SELECT SALARY FROM Worker ORDER BY SALARY DESC LIMIT 4, 1;

```
mysql> SELECT SALARY FROM Worker ORDER BY SALARY DESC LIMIT 4, 1;
+--------+
| SALARY |
+--------+
| 100000 |
+--------+
1 row in set (0.00 sec)
```

35) SELECT * FROM Worker WHERE SALARY IN (SELECT SALARY FROM Worker
GROUP BY SALARY HAVING COUNT(*) > 1);

```
mysql> SELECT * FROM Worker WHERE SALARY IN (SELECT SALARY FROM Worker GROUP BY SALARY HAVING COUNT(*) > 1);
+-----------+------------+-----------+--------+---------------------+------------+
| WORKER_ID | FIRST_NAME | LAST_NAME | SALARY | JOINING_DATE        | DEPARTMENT |
+-----------+------------+-----------+--------+---------------------+------------+
|         4 | Amitabh    | Singh     | 500000 | 2014-02-20 09:00:00 | Admin      |
|         5 | Vivek      | Bhati     | 500000 | 2014-06-11 09:00:00 | Admin      |
+-----------+------------+-----------+--------+---------------------+------------+
2 rows in set (0.11 sec)
```

36) SELECT DISTINCT SALARY FROM Worker ORDER BY SALARY DESC LIMIT 1
OFFSET 1;

```
mysql> SELECT DISTINCT SALARY FROM Worker ORDER BY SALARY DESC LIMIT 1 OFFSET 1;
+--------+
| SALARY |
+--------+
| 300000 |
+--------+
1 row in set (0.00 sec)
```

37) SELECT * FROM Worker where worker_id=1 UNION ALL SELECT * FROM Worker
where worker_id =1;

```
mysql> SELECT * FROM Worker where worker_id=1 UNION ALL SELECT * FROM Worker where worker_id =1;
+-----------+------------+-----------+--------+---------------------+------------+
| WORKER_ID | FIRST_NAME | LAST_NAME | SALARY | JOINING_DATE        | DEPARTMENT |
+-----------+------------+-----------+--------+---------------------+------------+
|         1 | Monika     | Arora     | 100000 | 2014-02-20 09:00:00 | HR         |
|         1 | Monika     | Arora     | 100000 | 2014-02-20 09:00:00 | HR         |
+-----------+------------+-----------+--------+---------------------+------------+
2 rows in set (0.00 sec)
```

38) SELECT w.* FROM Worker w INNER JOIN Bonus b ON w.WORKER_ID =
b.WORKER_REF_ID;

```
mysql> SELECT w.* FROM Worker w INNER JOIN Bonus b ON w.WORKER_ID = b.WORKER_REF_ID;
+-----------+------------+-----------+--------+---------------------+------------+
| WORKER_ID | FIRST_NAME | LAST_NAME | SALARY | JOINING_DATE        | DEPARTMENT |
+-----------+------------+-----------+--------+---------------------+------------+
|         1 | Monika     | Arora     | 100000 | 2014-02-20 09:00:00 | HR         |
|         1 | Monika     | Arora     | 100000 | 2014-02-20 09:00:00 | HR         |
|         2 | Niharika   | Verma     |  80000 | 2014-06-11 09:00:00 | Admin      |
|         2 | Niharika   | Verma     |  80000 | 2014-06-11 09:00:00 | Admin      |
|         3 | Vishal     | Singhal   | 300000 | 2014-02-20 09:00:00 | HR         |
+-----------+------------+-----------+--------+---------------------+------------+
5 rows in set (0.00 sec)
```

39) SELECT * FROM Worker LIMIT 4;

```
mysql> SELECT * FROM Worker LIMIT 4
    -> ;
+-----------+------------+-----------+--------+---------------------+------------+
| WORKER_ID | FIRST_NAME | LAST_NAME | SALARY | JOINING_DATE        | DEPARTMENT |
+-----------+------------+-----------+--------+---------------------+------------+
|         1 | Monika     | Arora     | 100000 | 2014-02-20 09:00:00 | HR         |
|         2 | Niharika   | Verma     |  80000 | 2014-06-11 09:00:00 | Admin      |
|         3 | Vishal     | Singhal   | 300000 | 2014-02-20 09:00:00 | HR         |
|         4 | Amitabh    | Singh     | 500000 | 2014-02-20 09:00:00 | Admin      |
+-----------+------------+-----------+--------+---------------------+------------+
4 rows in set (0.00 sec)
```

40) SELECT DEPARTMENT FROM Worker GROUP BY DEPARTMENT HAVING COUNT(*) < 5;

```
mysql> SELECT DEPARTMENT FROM Worker GROUP BY DEPARTMENT HAVING COUNT(*) < 5;
+------------+
| DEPARTMENT |
+------------+
| HR         |
| Admin      |
| Account    |
+------------+
3 rows in set (0.09 sec)
```

41) SELECT DEPARTMENT, COUNT(*) AS Num_of_Employees FROM Worker GROUP BY DEPARTMENT;

```
mysql> SELECT DEPARTMENT, COUNT(*) AS Num_of_Employees FROM Worker GROUP BY DEPARTMENT;
+------------+------------------+
| DEPARTMENT | Num_of_Employees |
+------------+------------------+
| HR         |                2 |
| Admin      |                4 |
| Account    |                2 |
+------------+------------------+
3 rows in set (0.00 sec)
```

42) SELECT * FROM Worker ORDER BY WORKER_ID DESC LIMIT 1;

```
mysql> SELECT * FROM Worker ORDER BY WORKER_ID DESC LIMIT 1;
+-----------+------------+-----------+--------+---------------------+------------+
| WORKER_ID | FIRST_NAME | LAST_NAME | SALARY | JOINING_DATE        | DEPARTMENT |
+-----------+------------+-----------+--------+---------------------+------------+
|         8 | Geetika    | Chauhan   |  90000 | 2014-04-11 09:00:00 | Admin      |
+-----------+------------+-----------+--------+---------------------+------------+
1 row in set (0.00 sec)
```

43) SELECT * FROM Worker LIMIT 1;

```
mysql> SELECT * FROM Worker LIMIT 1;
+-----------+------------+-----------+--------+---------------------+------------+
| WORKER_ID | FIRST_NAME | LAST_NAME | SALARY | JOINING_DATE        | DEPARTMENT |
+-----------+------------+-----------+--------+---------------------+------------+
|         1 | Monika     | Arora     | 100000 | 2014-02-20 09:00:00 | HR         |
+-----------+------------+-----------+--------+---------------------+------------+
1 row in set (0.00 sec)
```

44) SELECT * FROM (SELECT * FROM Worker ORDER BY WORKER_ID DESC LIMIT 5) AS sub ORDER BY WORKER_ID ASC;

```
mysql> SELECT * FROM (SELECT * FROM Worker ORDER BY WORKER_ID DESC LIMIT 5) AS sub ORDER BY WORKER_ID ASC;
+-----------+------------+-----------+--------+---------------------+------------+
| WORKER_ID | FIRST_NAME | LAST_NAME | SALARY | JOINING_DATE        | DEPARTMENT |
+-----------+------------+-----------+--------+---------------------+------------+
|         4 | Amitabh    | Singh     | 500000 | 2014-02-20 09:00:00 | Admin      |
|         5 | Vivek      | Bhati     | 500000 | 2014-06-11 09:00:00 | Admin      |
|         6 | Vipul      | Diwan     | 200000 | 2014-06-11 09:00:00 | Account    |
|         7 | Satish     | Kumar     |  75000 | 2014-01-20 09:00:00 | Account    |
|         8 | Geetika    | Chauhan   |  90000 | 2014-04-11 09:00:00 | Admin      |
+-----------+------------+-----------+--------+---------------------+------------+
5 rows in set (0.04 sec)
```

45) SELECT FIRST_NAME, LAST_NAME FROM Worker WHERE (DEPARTMENT, SALARY) IN (SELECT DEPARTMENT, MAX(SALARY) FROM Worker GROUP BY DEPARTMENT);

```
mysql> SELECT FIRST_NAME, LAST_NAME FROM Worker WHERE (DEPARTMENT, SALARY) IN (SELECT DEPARTMENT, MAX(SALARY) FROM Worker GROUP BY DEPARTMENT);
+------------+-----------+
| FIRST_NAME | LAST_NAME |
+------------+-----------+
| Vishal     | Singhal   |
| Amitabh    | Singh     |
| Vivek      | Bhati     |
| Vipul      | Diwan     |
+------------+-----------+
4 rows in set (0.09 sec)
```

46) SELECT DISTINCT SALARY FROM Worker ORDER BY SALARY DESC LIMIT 3;

```
mysql> SELECT DISTINCT SALARY FROM Worker ORDER BY SALARY DESC LIMIT 3;
+--------+
| SALARY |
+--------+
| 500000 |
| 300000 |
| 200000 |
+--------+
3 rows in set (0.00 sec)
```

47) SELECT DISTINCT SALARY FROM Worker ORDER BY SALARY ASC LIMIT 3;

```
mysql> SELECT DISTINCT SALARY FROM Worker ORDER BY SALARY ASC LIMIT 3;
+--------+
| SALARY |
+--------+
|  75000 |
|  80000 |
|  90000 |
+--------+
3 rows in set (0.00 sec)
```

48) SELECT DISTINCT SALARY FROM Worker ORDER BY SALARY DESC LIMIT 2, 1;

```
mysql> SELECT DISTINCT SALARY FROM Worker ORDER BY SALARY DESC LIMIT 2, 1;
+--------+
| SALARY |
+--------+
| 200000 |
+--------+
1 row in set (0.00 sec)
```

49) SELECT DEPARTMENT, SUM(SALARY) AS Total_Salary FROM Worker GROUP BY DEPARTMENT;

```
mysql> SELECT DEPARTMENT, SUM(SALARY) AS Total_Salary FROM Worker GROUP BY DEPARTMENT;
+------------+--------------+
| DEPARTMENT | Total_Salary |
+------------+--------------+
| HR         |       400000 |
| Admin      |      1170000 |
| Account    |       275000 |
+------------+--------------+
3 rows in set (0.09 sec)
```

50) SELECT FIRST_NAME, LAST_NAME FROM Worker WHERE SALARY = (SELECT MAX(SALARY) FROM Worker);

```
mysql> SELECT FIRST_NAME, LAST_NAME FROM Worker WHERE SALARY = (SELECT MAX(SALARY) FROM Worker);
+------------+-----------+
| FIRST_NAME | LAST_NAME |
+------------+-----------+
| Amitabh    | Singh     |
| Vivek      | Bhati     |
+------------+-----------+
2 rows in set (0.00 sec)
```