ASSIGNMENT-6

1. Write an SQL query to fetch “FIRST_NAME” from the Worker table using the alias name <WORKER_NAME>.

```
mysql> select first_name as Worker_Name from Worker;
+-------------+
| Worker_Name |
+-------------+
| Monika      |
| Niharika    |
| Vishal      |
| Amitabh     |
| Vivek       |
| Vipul       |
| Satish      |
| Geetika     |
+-------------+
```

2. Write an SQL query to fetch “FIRST_NAME” from the Worker table in upper case.

```
mysql> select  upper(first_name) from Worker;
+------------------+
| upper(first_name) |
+------------------+
| MONIKA           |
| NIHARIKA         |
| VISHAL           |
| AMITABH          |
| VIVEK            |
| VIPUL            |
| SATISH           |
| GEETIKA          |
+------------------+
8 rows in set (0.00 sec)
```

3. Write an SQL query to fetch unique values of DEPARTMENT from the Worker table.

```
mysql> select distinct(department) from Worker;
+------------+
| department |
+------------+
| HR         |
| Admin      |
| Account    |
+------------+
```

4. Write an SQL query to print the first three characters of FIRST_NAME from the Worker table.

```
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 (0.00 sec)
```

5. Write an SQL query to find the position of the alphabet (‘a’) in the first name column ‘Amitabh’ from the Worker table.

```
select position('a' in first_name) from Worker where first_name='Amitabh';
+----------------------------+
| position('a' in first_name) |
+----------------------------+
|                          1 |
+----------------------------+
1 row in set (0.00 sec)
```

6. Write an SQL query to print all Worker details from the Worker table order by FIRST_NAME Ascending.

```
select * from Worker order by first_name asc;
+-----------+------------+-----------+--------+---------------------+------------+
| worker_id | first_name | last_name | salary | joining_date        | department |
+-----------+------------+-----------+--------+---------------------+------------+
|         3 | 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    |
|         2 | 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)
```

7. Write an SQL query to print all Worker details from the Worker table order by FIRST_NAME Ascending and DEPARTMENT Descending.

```
select * from Worker order by first_name asc, department desc;
+-----------+------------+-----------+--------+---------------------+------------+
| worker_id | first_name | last_name | salary | joining_date        | department |
+-----------+------------+-----------+--------+---------------------+------------+
|         3 | 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    |
|         2 | 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)
```

8. Write an SQL query to print details for Workers with the first names “Vipul” and “Satish” from the Worker table.

```
mysql> select *from Worker where first_name in ('Satish','Vipul');
+-----------+------------+-----------+--------+---------------------+------------+
| 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    |
+-----------+------------+-----------+--------+---------------------+------------+
```

9. Write an SQL query to print details of workers excluding first names, “Vipul” and “Satish” from the Worker table.

```
select *from Worker where first_name not in ('Satish','Vipul');
+-----------+------------+-----------+--------+---------------------+------------+
| 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      |
|         2 | Vishal     | Singhal   | 300000 | 2014-02-20 09:00:00 | HR         |
|         3 | 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)
```

10. Write an SQL query to print details of Workers with DEPARTMENT name as “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      |
|         3 | 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)
```

11. Write an SQL query to print details of the Workers whose FIRST_NAME contains ‘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      |
|         2 | Vishal     | Singhal   | 300000 | 2014-02-20 09:00:00 | HR         |
|         3 | 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)
```

12. Write an SQL query to print names of the Workers whose FIRST_NAME ends with ‘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)
```

13. Write an SQL query to print details of the Workers whose FIRST_NAME ends with ‘h’ and contains six alphabets.

```
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         |
+-----------+------------+-----------+--------+---------------------+------------+
1 row in set (0.00 sec)
```

14. Write an SQL query to print details of the Workers whose SALARY lies 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         |
|         2 | Vishal     | Singhal   | 300000 | 2014-02-20 09:00:00 | HR         |
|         3 | 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 (0.00 sec)
```

15. Write an SQL query to print details of the Workers who joined in Feb’2014.

```
mysql> select * from Worker where year(joining_date)=2014 and
month(joining_date)=02;
+-----------+------------+-----------+--------+---------------------+------------+
| worker_id | first_name | last_name | salary | joining_date        | department |
+-----------+------------+-----------+--------+---------------------+------------+
|         1 | Monika     | Arora     | 100000 | 2014-02-20 09:00:00 | HR         |
|         2 | Vishal     | Singhal   | 300000 | 2014-02-20 09:00:00 | HR         |
|         3 | Amitabh    | Singh     | 500000 | 2014-02-20 09:00:00 | Admin      |
+-----------+------------+-----------+--------+---------------------+------------+
3 rows in set (0.00 sec)
```

16. Write an SQL query to fetch the count of employees working in the department ‘Admin’.

```
mysql> select * from Worker count where department='Admin';
+-----------+------------+-----------+--------+---------------------+------------+
| worker_id | first_name | last_name | salary | joining_date        | department |
+-----------+------------+-----------+--------+---------------------+------------+
|         2 | Niharika   | Verma     |  80000 | 2014-06-11 09:00:00 | Admin      |
|         3 | 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      |
+-----------+------------+-----------+--------+---------------------+------------+
```

17. Write an SQL query to fetch worker names with salaries >= 50000 and <= 100000.

```
mysql> select Worker.first_name,Worker.last_name,Worker.salary from Worker where salary between 100000 and 500000;
+------------+-----------+--------+
| first_name | last_name | salary |
+------------+-----------+--------+
| Monika     | Arora     | 100000 |
| Vishal     | Singhal   | 300000 |
| Amitabh    | Singh     | 500000 |
| Vivek      | Bhati     | 500000 |
| Vipul      | Diwan     | 200000 |
+------------+-----------+--------+
5 rows in set (0.00 sec)
```

18. Write an SQL query to fetch the no. of workers for each department in descending order.

```
mysql> select department,count(department) as NO_OF_WORKERS from Worker group by department order by count(department) desc;
+------------+---------------+
| department | NO_OF_WORKERS |
+------------+---------------+
| Admin      |             4 |
| HR         |             2 |
| Account    |             2 |
+------------+---------------+
3 rows in set (0.00 sec)
```

19. Write an SQL query to print details of the Workers who are also Managers.

```
mysql> select Worker.*, Title.* from Worker inner join Title on
Worker.worker_id=Title.Worker_ref_id where Title.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         |          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 |
+-----------+------------+-----------+--------+---------------------+------------+--------------+------------
-+--------------------+
2 rows in set (0.00 sec)
```

20. Write an SQL query to fetch duplicate records having matching data in some fields of a table.

```
mysql> select salary, department, count(salary), count(department) as 'duplicate Count'
from Worker group by salary, department having count(*) > 1;
+--------+------------+---------------+-----------------+
| salary | department | count(salary) | duplicate Count |
+--------+------------+---------------+-----------------+
| 500000 | Admin      |             2 |               2 |
+--------+------------+---------------+-----------------+
1 row in set (0.00 sec)
```

Q21.Write an SQL query to show only odd rows from a table

```
mysql> SELECT * FROM Worker WHERE (Worker_id%2=1);
+-----------+------------+-----------+--------+---------------------+------------+
| 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 (0.00 sec)
```

Q22.Write an SQL query to show only even rows from a table

```
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)
```

23.Write an SQL query to clone a new table from another table

```
mysql> create table Worker_clone as select * from Worker;
Query OK, 8 rows affected (0.55 sec)
Records: 8  Duplicates: 0  Warnings: 0

mysql> select * from Worker_clone;
+-----------+------------+-----------+--------+---------------------+------------+
| 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)
```

24.Write an SQL query to fetch intersecting records of previous two tables

```
mysql> select * from Worker intersect select * from Worker_clone
    -> ;
+-----------+------------+-----------+--------+---------------------+------------+
| 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)
```

25. Write an SQL query to show records from one table that another table does not have.

```
mysql> select * from Worker EXCEPT select * from Worker_clone;
Empty set (0.00 sec)
```

26. Write an SQL query to show the top n (say 10) records of a table.

```
mysql> select * from Worker limit 5;
+-----------+------------+-----------+--------+---------------------+------------+
| 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      |
+-----------+------------+-----------+--------+---------------------+------------+
5 rows in set (0.00 sec)
```

27. Write an SQL query to fetch the list of employees with the same salary.

```
select e1.worker_id as "Worker_id", e1.first_name as "Worker_name" from Worker e1
inner join Worker e2 on e1.salary = e2.salary where e1.worker_id <> e2.worker_id;
+-----------+-------------+
| Worker_id | Worker_name |
+-----------+-------------+
|         5 | Vivek       |
|         4 | Amitabh     |
+-----------+-------------+
2 rows in set (0.00 sec)
```

28.Write an SQL query to show the second-highest salary from a table.

```
mysql> select distinct salary from Worker order by salary desc limit 1,1;
+--------+
| salary |
+--------+
| 300000 |
+--------+
1 row in set (0.00 sec)
```

29. Write an SQL query to fetch intersecting records of two tables.

```
mysql> select * from title intersect select * from bonus;
Empty set (0.00 sec)
```

31. Write an SQL query to fetch the departments that have less than five people in them.

```
mysql> select * from (select department, count(department) as count from Worker group
by department)
as t where t.count < 5;
+------------+-------+
| department | count |
+------------+-------+
| HR         |     2 |
| Admin      |     4 |
| Account    |     2 |
+------------+-------+
3 rows in set (0.01 sec)
```

32. Write an SQL query to show all departments along with the number of people in there.

```
mysql> select count(*) as count, department from Worker group by department;
+-------+------------+
| count | department |
+-------+------------+
|     2 | HR         |
|     4 | Admin      |
|     2 | Account    |
+-------+------------+
3 rows in set (0.00 sec)
```

33. Write an SQL query to show the last record from a table.

```
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)
```

34. Write an SQL query to fetch the first row of a table.

```
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)
```

35. Write an SQL query to fetch the last five records from a table.

```
mysql> select * from Worker order by worker_id desc limit 5;
+-----------+------------+-----------+--------+---------------------+------------+
| worker_id | first_name | last_name | salary | joining_date        | department |
+-----------+------------+-----------+--------+---------------------+------------+
|         8 | Geetika    | Chauhan   |  90000 | 2014-04-11 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    |
|         5 | Vivek      | Bhati     | 500000 | 2014-06-11 09:00:00 | Admin      |
|         4 | Amitabh    | Singh     | 500000 | 2014-02-20 09:00:00 | Admin      |
+-----------+------------+-----------+--------+---------------------+------------+
5 rows in set (0.00 sec)
```

36. Write an SQL query to print the name of employees having the highest salary in each 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 (0.00 sec)
```

37. Write an SQL query to fetch three max salaries from a table.

```
mysql> select distinct salary from Worker order by salary desc limit 3;\
+--------+
| salary |
+--------+
| 500000 |
| 300000 |
| 200000 |
+--------+

3 rows in set (0.00 sec)
```

38. Write an SQL query to fetch departments along with the total salaries paid for each of them.

```
mysql> select department , sum(salary) from Worker group by department;
+------------+-------------+
| department | sum(salary) |
+------------+-------------+
| HR         |      400000 |
| Admin      |     1170000 |
| Account    |      275000 |
+------------+-------------+
```

39. Write an SQL query to fetch the names of workers who earn the highest salary.

```
mysql> select first_name from Worker where salary = (select max(salary) from Worke
r);
+------------+
| first_name |
+------------+
| Amitabh    |
| Vivek      |
+------------+
2 rows in set (0.00 sec)
```