SQL ASSIGNMENTS

Create a database worker that should contain **first name, last name email, department, salary, Join Date** with 50 employees.

WORKER TABLE:

```
mysql> select * from worker;
+----+------------+-----------+--------------------+------------+--------+---------------------+
| ID | FIRST_NAME | LAST_NAME | EMAIL              | DEPARTMENT | SALARY | JOIN_DATE           |
+----+------------+-----------+--------------------+------------+--------+---------------------+
|  1 | suriya     | varma     | sur@gmail.com      | hr         |  16000 | 2014-02-20 00:00:00 |
|  3 | mohd       | xavier    | mohd@gmail.com     | hr         |  15000 | 2010-02-20 00:00:00 |
|  4 | vishav     | rath      | vojsa@gmail.com    | hr         |  35000 | 2015-02-20 00:00:00 |
|  5 | waseem     | prabu     | wassem@gmail.com   | developer  |  45000 | 2011-02-20 00:00:00 |
|  6 | asif       | dayalan   | asif@gmail.com     | hr         |  12000 | 2010-02-20 00:00:00 |
|  7 | avinash    | sabeer    | sabeer@mail.com    | admin      |  23000 | 2012-02-20 00:00:00 |
|  8 | nakul      | joshuva   | nakul@gmail.com    | research   | 255000 | 2013-02-20 00:00:00 |
|  9 | parush     | jesil     | parush@gmail.com   | manager    |  24000 | 2014-02-20 00:00:00 |
| 10 | vinaik     | varma     | vinaik@gmail.com   | hr         |  16000 | 2014-02-20 00:00:00 |
| 11 | anil       | kumar     | anil@gmail.com     | admin      |  30000 | 2012-02-20 00:00:00 |
| 12 | charanjeev | xavier    | xavier@gmail.com   | hr         |  15000 | 2010-02-20 00:00:00 |
| 13 | pyuish     | rath      | ratj@gmail.com     | hr         |  35000 | 2015-02-20 00:00:00 |
| 14 | sivan      | prabu     | sovam@gmail.com    | developer  |  45000 | 2011-02-20 00:00:00 |
| 15 | tushyuanka | dayalan   | tisjuamla@gmail.com| hr         |  12000 | 2010-02-20 00:00:00 |
| 16 | zaid       | mushtaq   | azaod@gmail.com    | admin      |  23000 | 2012-02-20 00:00:00 |
| 17 | mayank     | koul      | mauank@gmail.com   | research   | 255000 | 2013-02-20 00:00:00 |
| 18 | malik      | mushtaq   | yousva@gmail.com   | manager    |  24000 | 2014-02-20 00:00:00 |
| 19 | suraj      | raina     | raina@gmail.com    | hr         |  16000 | 2014-02-20 00:00:00 |
| 20 | abhinav    | goswami   | goswami@gmail.com  | admin      |  30000 | 2012-02-20 00:00:00 |
| 21 | anubhav    | peer      | peer@gmail.com     | hr         |  15000 | 2010-02-20 00:00:00 |
| 22 | unmukat    | sharma    | sharma@gmail.com   | hr         |  35000 | 2015-02-20 00:00:00 |
| 24 | syed       | shah      | shah@gmail.com     | hr         |  12000 | 2010-02-20 00:00:00 |
| 25 | anmol      | bhat      | bhat@gmail.com     | admin      |  23000 | 2012-02-20 00:00:00 |
| 26 | moshin     | kahan     | khan@gmail.com     | research   | 255000 | 2013-02-20 00:00:00 |
| 27 | aadil      | rehman    | rehman@gmail.com   | manager    |  24000 | 2014-02-20 00:00:00 |
| 28 | jos        | jes       | josjes@guvi.com    | developer  |  30000 | 2010-03-21 00:00:00 |
| 29 | nit        | khan      | nithkan@guvi.com   | developer  |  40000 | 2021-03-05 00:00:00 |
```

Task-1

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

```
mysql> select FIRST_NAME as WORKER_NAME from workers;
+-------------+
| WORKER_NAME |
+-------------+
| nithil      |
| goyal       |
| niharika    |
| vishal      |
| amitabh     |
| vivek       |
| vipul       |
| satish      |
| geetika     |
| ragu        |
| vinoth      |
| joseph      |
| jenil       |
| vikram      |
| deena       |
| adam        |
| jovin       |
| yousva      |
| suriya      |
| Rajat       |
| mohd        |
| vishav      |
| waseem      |
```

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

```
mysql> select distinct DEPARTMENT from workers;
+------------+
| DEPARTMENT |
+------------+
| hr         |
| admin      |
| developer  |
| research   |
| manager    |
+------------+
5 rows in set (0.00 sec)
```

3. Write an SQL query to show the last 5 records from a table.

```
mysql> (select * from workers order by FIRST_NAME DESC LIMIT 5) order by FIRST_NAME ASC;
+------------+-----------+-------------------+------------+--------+---------------------+
| FIRST_NAME | LAST_NAME | EMAIL             | DEPARTMENT | SALARY | JOIN_DATE           |
+------------+-----------+-------------------+------------+--------+---------------------+
| vishav     | rath      | vojsa@gmail.com   | hr         |  35000 | 2015-02-20 00:00:00 |
| vivek      | Bhati     | vivek@gmail.com   | hr         |  13000 | 2010-02-20 00:00:00 |
| waseem     | prabu     | wassem@gmail.com  | developer  |  45000 | 2011-02-20 00:00:00 |
| yousva     | jesil     | yousva@gmail.com  | manager    |  34000 | 2014-02-20 00:00:00 |
| zaid       | mushtaq   | azaod@gmail.com   | admin      |  23000 | 2012-02-20 00:00:00 |
+------------+-----------+-------------------+------------+--------+---------------------+
5 rows in set (0.00 sec)
```

Task-2

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

```
mysql> select substring(FIRST_NAME,1,3) from workers;
+---------------------------+
| substring(FIRST_NAME,1,3) |
+---------------------------+
| nit                       |
| goy                       |
| nih                       |
| vis                       |
| ami                       |
| viv                       |
| vip                       |
| sat                       |
| gee                       |
| rag                       |
| vin                       |
| jos                       |
| jen                       |
| vik                       |
| dee                       |
| ada                       |
| jov                       |
```

2. Write an SQL query to find the position of the alphabet ('a') in the first name

```
mysql> select INSTR(FIRST_NAME, BINARY'a') from workers;
+------------------------------+
| INSTR(FIRST_NAME, BINARY'a') |
+------------------------------+
|                            0 |
|                            4 |
|                            4 |
|                            5 |
|                            1 |
|                            0 |
|                            0 |
|                            2 |
|                            7 |
|                            2 |
|                            0 |
|                            0 |
|                            0 |
|                            5 |
|                            5 |
|                            1 |
|                            0 |
```

3. Write an SQL query to print the name of employees who have the highest salary in each department.

query:

select DEPARTMENT, FIRST_NAME, SALARY from workers where (DEPARTMENT,SALARY) IN (SELECT DEPARTMENT, MAX(SALARY) FROM workers GROUP BY DEPARTMENT)

```
mysql> select DEPARTMENT, FIRST_NAME, SALARY from workers where (DEPARTMENT,SALARY) IN (SELECT DEPARTMENT, MAX(SALARY) FROM workers GROUP BY DEPARTMENT);
+------------+------------+--------+
| DEPARTMENT | FIRST_NAME | SALARY |
+------------+------------+--------+
| hr         | vishal     |  45000 |
| developer  | amitabh    |  55000 |
| research   | satish     | 455000 |
| manager    | geetika    |  34000 |
| hr         | jenil      |  45000 |
| developer  | vikram     |  55000 |
| research   | jovin      | 455000 |
| manager    | yousva     |  34000 |
| admin      | Rajat      |  30000 |
| admin      | anil       |  30000 |
| admin      | abhinav    |  30000 |
+------------+------------+--------+
11 rows in set (0.00 sec)
```

Task-3

1. Write an SQL query to print the FIRST_NAME from the Worker table after removing white spaces from the right side.

```
mysql> select RTRIM(FIRST_NAME) from workers;
+-------------------+
| RTRIM(FIRST_NAME) |
+-------------------+
| nithil            |
| goyal             |
| niharika          |
| vishal            |
| amitabh           |
| vivek             |
| vipul             |
| satish            |
| geetika           |
| ragu              |
| vinoth            |
| joseph            |
| jenil             |
| vikram            |
| deena             |
```

2. Write an SQL query that fetches the unique values of DEPARTMENT from the Worker table and prints its length.

```
mysql> select distinct DEPARTMENT, length(DEPARTMENT) from worker;
+------------+--------------------+
| DEPARTMENT | length(DEPARTMENT) |
+------------+--------------------+
| hr         |                  2 |
| developer  |                  9 |
| admin      |                  5 |
| research   |                  8 |
| manager    |                  7 |
+------------+--------------------+
5 rows in set (0.00 sec)
```

3. Write an SQL query to fetch nth max salaries from a table.

```
mysql> Select *
    -> FROM worker w1
    -> WHERE (1) = (
    -> SELECT COUNT(DISTINCT(w2.SALARY))
    -> FROM worker w2
    -> WHERE w2.SALARY > w1.SALARY);
+----+------------+-----------+------------------+------------+--------+---------------------+
| ID | FIRST_NAME | LAST_NAME | EMAIL            | DEPARTMENT | SALARY | JOIN_DATE           |
+----+------------+-----------+------------------+------------+--------+---------------------+
|  5 | waseem     | prabu     | wassem@gmail.com | developer  |  45000 | 2011-02-20 00:00:00 |
| 14 | sivan      | prabu     | sovam@gmail.com  | developer  |  45000 | 2011-02-20 00:00:00 |
| 23 | rahul      | raj       | raj@gmail.com    | developer  |  45000 | 2011-02-20 00:00:00 |
+----+------------+-----------+------------------+------------+--------+---------------------+
```

Task-4

1. Write an SQL query to print the FIRST_NAME from the Worker table after replacing 'a' with 'A'.

```
mysql> select REPLACE(FIRST_NAME,'a','A') from worker;
+------------------------------+
| REPLACE(FIRST_NAME,'a','A')  |
+------------------------------+
| suriyA                       |
| RAjAt                        |
| mohd                         |
| vishAv                       |
| wAseem                       |
| Asif                         |
| AvinAsh                      |
| nAkul                        |
| pArush                       |
| vinAik                       |
| Anil                         |
| chArAnjeev                   |
| pyuish                       |
| sivAn                        |
| tushyuAnkA                   |
| zAid                         |
| mAyAnk                       |
| mAlik                        |
| surAj                        |
| AbhinAv                      |
| AnubhAv                      |
| unmukAt                      |
| rAhul                        |
| syed                         |
| Anmol                        |
| moshin                       |
| AAdil                        |
+------------------------------+
27 rows in set (0.07 sec)
```

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

```
mysql> select * from worker order by FIRST_NAME ASC,DEPARTMENT DESC;
+----+------------+-----------+---------------------+------------+--------+---------------------+
| ID | FIRST_NAME | LAST_NAME | EMAIL               | DEPARTMENT | SALARY | JOIN_DATE           |
+----+------------+-----------+---------------------+------------+--------+---------------------+
| 27 | aadil      | rehman    | rehman@gmail.com    | manager    |  24000 | 2014-02-20 00:00:00 |
| 20 | abhinav    | goswami   | goswami@gmail.com   | admin      |  30000 | 2012-02-20 00:00:00 |
| 11 | anil       | kumar     | anil@gmail.com      | admin      |  30000 | 2012-02-20 00:00:00 |
| 25 | anmol      | bhat      | bhat@gmail.com      | admin      |  23000 | 2012-02-20 00:00:00 |
| 21 | anubhav    | peer      | peer@gmail.com      | hr         |  15000 | 2010-02-20 00:00:00 |
|  6 | asif       | dayalan   | asif@gmail.com      | hr         |  12000 | 2010-02-20 00:00:00 |
|  7 | avinash    | sabeer    | sabeer@mail.com     | admin      |  23000 | 2012-02-20 00:00:00 |
| 12 | charanjeev | xavier    | xavier@gmail.com    | hr         |  15000 | 2010-02-20 00:00:00 |
| 18 | malik      | mushtaq   | yousva@gmail.com    | manager    |  24000 | 2014-02-20 00:00:00 |
| 17 | mayank     | koul      | mauank@gmail.com    | research   | 255000 | 2013-02-20 00:00:00 |
|  3 | mohd       | xavier    | mohd@gmail.com      | hr         |  15000 | 2010-02-20 00:00:00 |
| 26 | moshin     | kahan     | khan@gmail.com      | research   | 255000 | 2013-02-20 00:00:00 |
|  8 | nakul      | joshuva   | nakul@gmail.com     | research   | 255000 | 2013-02-20 00:00:00 |
|  9 | parush     | jesil     | parush@gmail.com    | manager    |  24000 | 2014-02-20 00:00:00 |
| 13 | pyuish     | rath      | ratj@gmail.com      | hr         |  35000 | 2015-02-20 00:00:00 |
| 23 | rahul      | raj       | raj@gmail.com       | developer  |  45000 | 2011-02-20 00:00:00 |
|  2 | Rajat      | kumar     | Raj@gmail.com       | admin      |  30000 | 2012-02-20 00:00:00 |
| 14 | sivan      | prabu     | sovam@gmail.com     | developer  |  45000 | 2011-02-20 00:00:00 |
| 19 | suraj      | raina     | raina@gmail.com     | hr         |  16000 | 2014-02-20 00:00:00 |
|  1 | suriya     | varma     | sur@gmail.com       | hr         |  16000 | 2014-02-20 00:00:00 |
| 24 | syed       | shah      | shah@gmail.com      | hr         |  12000 | 2010-02-20 00:00:00 |
| 15 | tushyuanka | dayalan   | tisjuamla@gmail.com | hr         |  12000 | 2010-02-20 00:00:00 |
| 22 | unmukat    | sharma    | sharma@gmail.com    | hr         |  35000 | 2015-02-20 00:00:00 |
| 10 | vinaik     | varma     | vinaik@gmail.com    | hr         |  16000 | 2014-02-20 00:00:00 |
|  4 | vishav     | rath      | vojsa@gmail.com     | hr         |  35000 | 2015-02-20 00:00:00 |
|  5 | waseem     | prabu     | wassem@gmail.com    | developer  |  45000 | 2011-02-20 00:00:00 |
| 16 | zaid       | mushtaq   | azaod@gmail.com     | admin      |  23000 | 2012-02-20 00:00:00 |
+----+------------+-----------+---------------------+------------+--------+---------------------+
27 rows in set (0.06 sec)
```

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

```
mysql> select FIRST_NAME,SALARY from worker where SALARY = (SELECT MAX(SALARY) FROM worker);
+------------+--------+
| FIRST_NAME | SALARY |
+------------+--------+
| nakul      | 255000 |
| mayank     | 255000 |
| moshin     | 255000 |
+------------+--------+
3 rows in set (0.00 sec)
```

Task-5

1. Write an SQL query to print details of workers excluding first names, "Ramesh" and "Santhosh" from the Worker table.

```
mysql> select * from worker where FIRST_NAME not in ('Ramesh','Santhosh');
+----+------------+-----------+---------------------+------------+--------+---------------------+
| ID | FIRST_NAME | LAST_NAME | EMAIL               | DEPARTMENT | SALARY | JOIN_DATE           |
+----+------------+-----------+---------------------+------------+--------+---------------------+
|  1 | suriya     | varma     | sur@gmail.com       | hr         |  16000 | 2014-02-20 00:00:00 |
|  2 | Rajat      | kumar     | Raj@gmail.com       | admin      |  30000 | 2012-02-20 00:00:00 |
|  3 | mohd       | xavier    | mohd@gmail.com      | hr         |  15000 | 2010-02-20 00:00:00 |
|  4 | vishav     | rath      | vojsa@gmail.com     | hr         |  35000 | 2015-02-20 00:00:00 |
|  5 | waseem     | prabu     | wassem@gmail.com    | developer  |  45000 | 2011-02-20 00:00:00 |
|  6 | asif       | dayalan   | asif@gmail.com      | hr         |  12000 | 2010-02-20 00:00:00 |
|  7 | avinash    | sabeer    | sabeer@mail.com     | admin      |  23000 | 2012-02-20 00:00:00 |
|  8 | nakul      | joshuva   | nakul@gmail.com     | research   | 255000 | 2013-02-20 00:00:00 |
|  9 | parush     | jesil     | parush@gmail.com    | manager    |  24000 | 2014-02-20 00:00:00 |
| 10 | vinaik     | varma     | vinaik@gmail.com    | hr         |  16000 | 2014-02-20 00:00:00 |
| 11 | anil       | kumar     | anil@gmail.com      | admin      |  30000 | 2012-02-20 00:00:00 |
| 12 | charanjeev | xavier    | xavier@gmail.com    | hr         |  15000 | 2010-02-20 00:00:00 |
| 13 | pyuish     | rath      | ratj@gmail.com      | hr         |  35000 | 2015-02-20 00:00:00 |
| 14 | sivan      | prabu     | sovam@gmail.com     | developer  |  45000 | 2011-02-20 00:00:00 |
| 15 | tushyuanka | dayalan   | tisjuamla@gmail.com | hr         |  12000 | 2010-02-20 00:00:00 |
| 16 | zaid       | mushtaq   | azaod@gmail.com     | admin      |  23000 | 2012-02-20 00:00:00 |
| 17 | mayank     | koul      | mauank@gmail.com    | research   | 255000 | 2013-02-20 00:00:00 |
| 18 | malik      | mushtaq   | yousva@gmail.com    | manager    |  24000 | 2014-02-20 00:00:00 |
| 19 | suraj      | raina     | raina@gmail.com     | hr         |  16000 | 2014-02-20 00:00:00 |
| 20 | abhinav    | goswami   | goswami@gmail.com   | admin      |  30000 | 2012-02-20 00:00:00 |
| 21 | anubhav    | peer      | peer@gmail.com      | hr         |  15000 | 2010-02-20 00:00:00 |
| 22 | unmukat    | sharma    | sharma@gmail.com    | hr         |  35000 | 2015-02-20 00:00:00 |
| 23 | rahul      | raj       | raj@gmail.com       | developer  |  45000 | 2011-02-20 00:00:00 |
| 24 | syed       | shah      | shah@gmail.com      | hr         |  12000 | 2010-02-20 00:00:00 |
| 25 | anmol      | bhat      | bhat@gmail.com      | admin      |  23000 | 2012-02-20 00:00:00 |
| 26 | moshin     | kahan     | khan@gmail.com      | research   | 255000 | 2013-02-20 00:00:00 |
| 27 | aadil      | rehman    | rehman@gmail.com    | manager    |  24000 | 2014-02-20 00:00:00 |
+----+------------+-----------+---------------------+------------+--------+---------------------+
```

2. 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 '_____h';
+----+------------+-----------+------------------+------------+--------+---------------------+
| ID | FIRST_NAME | LAST_NAME | EMAIL            | DEPARTMENT | SALARY | JOIN_DATE           |
+----+------------+-----------+------------------+------------+--------+---------------------+
|  9 | parush     | jesil     | parush@gmail.com | manager    |  24000 | 2014-02-20 00:00:00 |
| 13 | pyuish     | rath      | ratj@gmail.com   | hr         |  35000 | 2015-02-20 00:00:00 |
+----+------------+-----------+------------------+------------+--------+---------------------+
2 rows in set (0.00 sec)
```

3. Write a query to validate Email of Employee (email should have first name last name and guvi.com example (first name=Kamal last name= raja and the mail id should be kamalraja@guvi.com).

```
mysql> select EMAIL from worker work  where EMAIL LIKE lower(CONCAT(work.FIRST_NAME, work.LAST_NAME,'@','guvi.com'));
+----------------+
| EMAIL          |
+----------------+
| josjes@guvi.com |
+----------------+
```

Task-6

1. Write an SQL query to print details of the Workers who have joined in March '2021.

```
mysql> select * from worker where JOIN_DATE LIKE '2021-03%';
+----+------------+-----------+------------------+------------+--------+---------------------+
| ID | FIRST_NAME | LAST_NAME | EMAIL            | DEPARTMENT | SALARY | JOIN_DATE           |
+----+------------+-----------+------------------+------------+--------+---------------------+
| 29 | nit        | khan      | nithkan@guvi.com | developer  |  40000 | 2021-03-05 00:00:00 |
+----+------------+-----------+------------------+------------+--------+---------------------+
1 row in set (0.00 sec)
```

2. Write an SQL query to fetch duplicates that have matching data in some fields of a table.

```
mysql> select FIRST_NAME,DEPARTMENT, COUNT(*) FROM worker group by FIRST_NAME,DEPARTMENT HAVING COUNT(*)>1;
+------------+------------+----------+
| FIRST_NAME | DEPARTMENT | COUNT(*) |
+------------+------------+----------+
| Rajat      | admin      |        2 |
+------------+------------+----------+
1 row in set (0.00 sec)
```

3. How to remove duplicate rows from the Employees table.

```
mysql> DELETE w1 from worker w1 inner join worker w2 where w1.id < w2.id AND w1.EMAIL = w2.EMAIL;
Query OK, 2 rows affected (0.12 sec)
```

Task-7

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

```
mysql> select * from worker where MOD(ID,2) <> 0 ;
+----+------------+-----------+--------------------+------------+--------+---------------------+
| ID | FIRST_NAME | LAST_NAME | EMAIL              | DEPARTMENT | SALARY | JOIN_DATE           |
+----+------------+-----------+--------------------+------------+--------+---------------------+
|  1 | suriya     | varma     | sur@gmail.com      | hr         |  16000 | 2014-02-20 00:00:00 |
|  3 | mohd       | xavier    | mohd@gmail.com     | hr         |  15000 | 2010-02-20 00:00:00 |
|  5 | waseem     | prabu     | wassem@gmail.com   | developer  |  45000 | 2011-02-20 00:00:00 |
|  7 | avinash    | sabeer    | sabeer@mail.com    | admin      |  23000 | 2012-02-20 00:00:00 |
|  9 | parush     | jesil     | parush@gmail.com   | manager    |  24000 | 2014-02-20 00:00:00 |
| 11 | anil       | kumar     | anil@gmail.com     | admin      |  30000 | 2012-02-20 00:00:00 |
| 13 | pyuish     | rath      | ratj@gmail.com     | hr         |  35000 | 2015-02-20 00:00:00 |
| 15 | tushyuanka | dayalan   | tisjuamla@gmail.com| hr         |  12000 | 2010-02-20 00:00:00 |
| 17 | mayank     | koul      | mauank@gmail.com   | research   | 255000 | 2013-02-20 00:00:00 |
| 19 | suraj      | raina     | raina@gmail.com    | hr         |  16000 | 2014-02-20 00:00:00 |
| 21 | anubhav    | peer      | peer@gmail.com     | hr         |  15000 | 2010-02-20 00:00:00 |
| 25 | anmol      | bhat      | bhat@gmail.com     | admin      |  23000 | 2012-02-20 00:00:00 |
| 27 | aadil      | rehman    | rehman@gmail.com   | manager    |  24000 | 2014-02-20 00:00:00 |
| 29 | nit        | khan      | nithkan@guvi.com   | developer  |  40000 | 2021-03-05 00:00:00 |
+----+------------+-----------+--------------------+------------+--------+---------------------+
14 rows in set (0.00 sec)
```

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

```
mysql> CREATE TABLE dupworker LIKE worker;
Query OK, 0 rows affected (1.15 sec)

mysql> select * from dupworker;
Empty set (0.01 sec)

mysql> insert into dupworker select * from worker;
Query OK, 28 rows affected (0.11 sec)
Records: 28  Duplicates: 0  Warnings: 0

mysql> select * from dupworker;
+----+------------+-----------+--------------------+------------+--------+---------------------+
| ID | FIRST_NAME | LAST_NAME | EMAIL              | DEPARTMENT | SALARY | JOIN_DATE           |
+----+------------+-----------+--------------------+------------+--------+---------------------+
|  1 | suriya     | varma     | sur@gmail.com      | hr         |  16000 | 2014-02-20 00:00:00 |
|  3 | mohd       | xavier    | mohd@gmail.com     | hr         |  15000 | 2010-02-20 00:00:00 |
|  4 | vishav     | rath      | vojsa@gmail.com    | hr         |  35000 | 2015-02-20 00:00:00 |
|  5 | waseem     | prabu     | wassem@gmail.com   | developer  |  45000 | 2011-02-20 00:00:00 |
|  6 | asif       | dayalan   | asif@gmail.com     | hr         |  12000 | 2010-02-20 00:00:00 |
|  7 | avinash    | sabeer    | sabeer@mail.com    | admin      |  23000 | 2012-02-20 00:00:00 |
|  8 | nakul      | joshuva   | nakul@gmail.com    | research   | 255000 | 2013-02-20 00:00:00 |
|  9 | parush     | jesil     | parush@gmail.com   | manager    |  24000 | 2014-02-20 00:00:00 |
| 10 | vinaik     | varma     | vinaik@gmail.com   | hr         |  16000 | 2014-02-20 00:00:00 |
| 11 | anil       | kumar     | anil@gmail.com     | admin      |  30000 | 2012-02-20 00:00:00 |
| 12 | charanjeev | xavier    | xavier@gmail.com   | hr         |  15000 | 2010-02-20 00:00:00 |
| 13 | pyuish     | rath      | ratj@gmail.com     | hr         |  35000 | 2015-02-20 00:00:00 |
| 14 | sivan      | prabu     | sovam@gmail.com    | developer  |  45000 | 2011-02-20 00:00:00 |
| 15 | tushyuanka | dayalan   | tisjuamla@gmail.com| hr         |  12000 | 2010-02-20 00:00:00 |
| 16 | zaid       | mushtaq   | azaod@gmail.com    | admin      |  23000 | 2012-02-20 00:00:00 |
| 17 | mayank     | koul      | mauank@gmail.com   | research   | 255000 | 2013-02-20 00:00:00 |
| 18 | malik      | mushtaq   | yousva@gmail.com   | manager    |  24000 | 2014-02-20 00:00:00 |
| 19 | suraj      | raina     | raina@gmail.com    | hr         |  16000 | 2014-02-20 00:00:00 |
| 20 | abhinav    | goswami   | goswami@gmail.com  | admin      |  30000 | 2012-02-20 00:00:00 |
| 21 | anubhav    | peer      | peer@gmail.com     | hr         |  15000 | 2010-02-20 00:00:00 |
| 22 | unmukat    | sharma    | sharma@gmail.com   | hr         |  35000 | 2015-02-20 00:00:00 |
| 24 | syed       | shah      | shah@gmail.com     | hr         |  12000 | 2010-02-20 00:00:00 |
| 25 | anmol      | bhat      | bhat@gmail.com     | admin      |  23000 | 2012-02-20 00:00:00 |
| 26 | moshin     | kahan     | khan@gmail.com     | research   | 255000 | 2013-02-20 00:00:00 |
| 27 | aadil      | rehman    | rehman@gmail.com   | manager    |  24000 | 2014-02-20 00:00:00 |
| 28 | jos        | jes       | josjes@guvi.com    | developer  |  30000 | 2010-03-21 00:00:00 |
| 29 | nit        | khan      | nithkan@guvi.com   | developer  |  40000 | 2021-03-05 00:00:00 |
| 30 | Rajat      | kumar     | Raj@gmail.com      | admin      |  30000 | 2012-02-20 00:00:00 |
+----+------------+-----------+--------------------+------------+--------+---------------------+
```

Task-8

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

```
mysql> SELECT * FROM worker w1 inner join dupworker dw on w1.ID = dw.ID;
+----+------------+-----------+--------------------+------------+--------+---------------------+----+------------+-----------+--------------------+------------+--------+---------------------+
| ID | FIRST_NAME | LAST_NAME | EMAIL              | DEPARTMENT | SALARY | JOIN_DATE           | ID | FIRST_NAME | LAST_NAME | EMAIL              | DEPARTMENT | SALARY | JOIN_DATE           |
+----+------------+-----------+--------------------+------------+--------+---------------------+----+------------+-----------+--------------------+------------+--------+---------------------+
|  1 | suriya     | varma     | sur@gmail.com      | hr         |  16000 | 2014-02-20 00:00:00 |  1 | suriya     | varma     | sur@gmail.com      | hr         |  16000 | 2014-02-20 00:00:00 |
|  3 | mohd       | xavier    | mohd@gmail.com     | hr         |  15000 | 2010-02-20 00:00:00 |  3 | mohd       | xavier    | mohd@gmail.com     | hr         |  15000 | 2010-02-20 00:00:00 |
|  4 | vishav     | rath      | vojsa@gmail.com    | hr         |  35000 | 2015-02-20 00:00:00 |  4 | vishav     | rath      | vojsa@gmail.com    | hr         |  35000 | 2015-02-20 00:00:00 |
|  5 | waseem     | prabu     | wassem@gmail.com   | developer  |  45000 | 2011-02-20 00:00:00 |  5 | waseem     | prabu     | wassem@gmail.com   | developer  |  45000 | 2011-02-20 00:00:00 |
|  6 | asif       | dayalan   | asif@gmail.com     | hr         |  12000 | 2010-02-20 00:00:00 |  6 | asif       | dayalan   | asif@gmail.com     | hr         |  12000 | 2010-02-20 00:00:00 |
|  7 | avinash    | sabeer    | sabeer@mail.com    | admin      |  23000 | 2012-02-20 00:00:00 |  7 | avinash    | sabeer    | sabeer@mail.com    | admin      |  23000 | 2012-02-20 00:00:00 |
|  8 | nakul      | joshuva   | nakul@gmail.com    | research   | 255000 | 2013-02-20 00:00:00 |  8 | nakul      | joshuva   | nakul@gmail.com    | research   | 255000 | 2013-02-20 00:00:00 |
|  9 | parush     | jesil     | parush@gmail.com   | manager    |  24000 | 2014-02-20 00:00:00 |  9 | parush     | jesil     | parush@gmail.com   | manager    |  24000 | 2014-02-20 00:00:00 |
| 10 | vinaik     | varma     | vinaik@gmail.com   | hr         |  16000 | 2014-02-20 00:00:00 | 10 | vinaik     | varma     | vinaik@gmail.com   | hr         |  16000 | 2014-02-20 00:00:00 |
| 11 | anil       | kumar     | anil@gmail.com     | admin      |  30000 | 2012-02-20 00:00:00 | 11 | anil       | kumar     | anil@gmail.com     | admin      |  30000 | 2012-02-20 00:00:00 |
| 12 | charanjeev | xavier    | xavier@gmail.com   | hr         |  15000 | 2010-02-20 00:00:00 | 12 | charanjeev | xavier    | xavier@gmail.com   | hr         |  15000 | 2010-02-20 00:00:00 |
| 13 | pyuish     | rath      | ratj@gmail.com     | hr         |  35000 | 2015-02-20 00:00:00 | 13 | pyuish     | rath      | ratj@gmail.com     | hr         |  35000 | 2015-02-20 00:00:00 |
| 14 | sivan      | prabu     | sovam@gmail.com    | developer  |  45000 | 2011-02-20 00:00:00 | 14 | sivan      | prabu     | sovam@gmail.com    | developer  |  45000 | 2011-02-20 00:00:00 |
| 15 | tushyuanka | dayalan   | tisjuamla@gmail.com| hr         |  12000 | 2010-02-20 00:00:00 | 15 | tushyuanka | dayalan   | tisjuamla@gmail.com| hr         |  12000 | 2010-02-20 00:00:00 |
| 16 | zaid       | mushtaq   | azaod@gmail.com    | admin      |  23000 | 2012-02-20 00:00:00 | 16 | zaid       | mushtaq   | azaod@gmail.com    | admin      |  23000 | 2012-02-20 00:00:00 |
| 17 | mayank     | koul      | mauank@gmail.com   | research   | 255000 | 2013-02-20 00:00:00 | 17 | mayank     | koul      | mauank@gmail.com   | research   | 255000 | 2013-02-20 00:00:00 |
| 18 | malik      | mushtaq   | yousva@gmail.com   | manager    |  24000 | 2014-02-20 00:00:00 | 18 | malik      | mushtaq   | yousva@gmail.com   | manager    |  24000 | 2014-02-20 00:00:00 |
| 19 | suraj      | raina     | raina@gmail.com    | hr         |  16000 | 2014-02-20 00:00:00 | 19 | suraj      | raina     | raina@gmail.com    | hr         |  16000 | 2014-02-20 00:00:00 |
| 20 | abhinav    | goswami   | goswami@gmail.com  | admin      |  30000 | 2012-02-20 00:00:00 | 20 | abhinav    | goswami   | goswami@gmail.com  | admin      |  30000 | 2012-02-20 00:00:00 |
| 21 | anubhav    | peer      | peer@gmail.com     | hr         |  15000 | 2010-02-20 00:00:00 | 21 | anubhav    | peer      | peer@gmail.com     | hr         |  15000 | 2010-02-20 00:00:00 |
| 22 | unmukat    | sharma    | sharma@gmail.com   | hr         |  35000 | 2015-02-20 00:00:00 | 22 | unmukat    | sharma    | sharma@gmail.com   | hr         |  35000 | 2015-02-20 00:00:00 |
| 24 | syed       | shah      | shah@gmail.com     | hr         |  12000 | 2010-02-20 00:00:00 | 24 | syed       | shah      | shah@gmail.com     | hr         |  12000 | 2010-02-20 00:00:00 |
| 25 | anmol      | bhat      | bhat@gmail.com     | admin      |  23000 | 2012-02-20 00:00:00 | 25 | anmol      | bhat      | bhat@gmail.com     | admin      |  23000 | 2012-02-20 00:00:00 |
| 26 | moshin     | kahan     | khan@gmail.com     | research   | 255000 | 2013-02-20 00:00:00 | 26 | moshin     | kahan     | khan@gmail.com     | research   | 255000 | 2013-02-20 00:00:00 |
| 27 | aadil      | rehman    | rehman@gmail.com   | manager    |  24000 | 2014-02-20 00:00:00 | 27 | aadil      | rehman    | rehman@gmail.com   | manager    |  24000 | 2014-02-20 00:00:00 |
| 28 | jos        | jes       | josjes@guvi.com    | developer  |  30000 | 2010-03-21 00:00:00 | 28 | jos        | jes       | josjes@guvi.com    | developer  |  30000 | 2010-03-21 00:00:00 |
| 29 | nit        | khan      | nithkan@guvi.com   | developer  |  40000 | 2021-03-05 00:00:00 | 29 | nit        | khan      | nithkan@guvi.com   | developer  |  40000 | 2021-03-05 00:00:00 |
| 30 | Rajat      | kumar     | Raj@gmail.com      | admin      |  30000 | 2012-02-20 00:00:00 | 30 | Rajat      | kumar     | Raj@gmail.com      | admin      |  30000 | 2012-02-20 00:00:00 |
+----+------------+-----------+--------------------+------------+--------+---------------------+----+------------+-----------+--------------------+------------+--------+---------------------+
```

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

```
mysql> select * from worker where not exists ( select * from dupworker where worker.ID = dupworker.ID);
Empty set (0.01 sec)
```

Task-9

1. Write an SQL query to show the top n (say 15) records of a table.

```
mysql> select * from worker order by SALARY DESC LIMIT 15;
+-----+------------+-----------+---------------------+------------+--------+---------------------+
| ID  | FIRST_NAME | LAST_NAME | EMAIL               | DEPARTMENT | SALARY | JOIN_DATE           |
+-----+------------+-----------+---------------------+------------+--------+---------------------+
| 17  | mayank     | koul      | mauank@gmail.com    | research   | 255000 | 2013-02-20 00:00:00 |
|  8  | nakul      | joshuva   | nakul@gmail.com     | research   | 255000 | 2013-02-20 00:00:00 |
| 26  | moshin     | kahan     | khan@gmail.com      | research   | 255000 | 2013-02-20 00:00:00 |
|  5  | waseem     | prabu     | wassem@gmail.com    | developer  |  45000 | 2011-02-20 00:00:00 |
| 14  | sivan      | prabu     | sovam@gmail.com     | developer  |  45000 | 2011-02-20 00:00:00 |
| 29  | nit        | khan      | nithkan@guvi.com    | developer  |  40000 | 2021-03-05 00:00:00 |
|  4  | vishav     | rath      | vojsa@gmail.com     | hr         |  35000 | 2015-02-20 00:00:00 |
| 22  | unmukat    | sharma    | sharma@gmail.com    | hr         |  35000 | 2015-02-20 00:00:00 |
| 13  | pyuish     | rath      | ratj@gmail.com      | hr         |  35000 | 2015-02-20 00:00:00 |
| 11  | anil       | kumar     | anil@gmail.com      | admin      |  30000 | 2012-02-20 00:00:00 |
| 20  | abhinav    | goswami   | goswami@gmail.com   | admin      |  30000 | 2012-02-20 00:00:00 |
| 28  | jos        | jes       | josjes@guvi.com     | developer  |  30000 | 2010-03-21 00:00:00 |
| 30  | Rajat      | kumar     | Raj@gmail.com       | admin      |  30000 | 2012-02-20 00:00:00 |
| 27  | aadil      | rehman    | rehman@gmail.com    | manager    |  24000 | 2014-02-20 00:00:00 |
|  9  | parush     | jesil     | parush@gmail.com    | manager    |  24000 | 2014-02-20 00:00:00 |
+-----+------------+-----------+---------------------+------------+--------+---------------------+
15 rows in set (0.00 sec)
```

2. Write an SQL query to determine the nth (say n=10) highest salary from a table.

```
mysql> select SALARY from worker ORDER BY SALARY DESC LIMIT 9,1;
+--------+
| SALARY |
+--------+
|  30000 |
+--------+
1 row in set (0.00 sec)
```

Task-10

1. Write an SQL query to determine the 8th highest salary without using TOP or LIMIT methods.

```
mysql> select distinct SALARY from worker w1 where 7 = (select count(distinct(w2.SALARY)) FROM worker w2 where w2.SALARY >= w1.SALARY);
+--------+
| SALARY |
+--------+
|  23000 |
+--------+
```

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

```
mysql> SELECT DISTINCT w.FIRST_NAME,w.SALARY FROM worker w, worker w1
    -> where w.SALARY = w1.SALARY AND w.ID != w1.ID;
+--------------+---------+
| FIRST_NAME   | SALARY  |
+--------------+---------+
| suraj        |   16000 |
| vinaik       |   16000 |
| anubhav      |   15000 |
| charanjeev   |   15000 |
| unmukat      |   35000 |
| pyuish       |   35000 |
| sivan        |   45000 |
| syed         |   12000 |
| tushyuanka   |   12000 |
| anmol        |   23000 |
| zaid         |   23000 |
| moshin       |  255000 |
| mayank       |  255000 |
| aadil        |   24000 |
| malik        |   24000 |
| suriya       |   16000 |
| Rajat        |   30000 |
| jos          |   30000 |
| abhinav      |   30000 |
| mohd         |   15000 |
| vishav       |   35000 |
| waseem       |   45000 |
| asif         |   12000 |
| avinash      |   23000 |
| nakul        |  255000 |
| parush       |   24000 |
| anil         |   30000 |
```