MySQL Query Examples

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I want you to create a MySQL database according to below questions and insert data into table and you have to write all queries.Q-1. Write an SQL query to fetch “FIRST_NAME” from Worker table using the alias
name as <WORKER_NAME>.
Q-2. Write an SQL query to fetch unique values of DEPARTMENT from Worker table.
Q-3. Write an SQL query to show the last 5 record from a table.

Q-4. Write an SQL query to print the first three characters of FIRST_NAME from Worker table.
Q-5. Write an SQL query to find the position of the alphabet (‘a’) in the first name column ‘Amitabh’ from Worker table.
Q-6. Write an SQL query to print the name of employees having the highest salary in each department.
Q-7. Write an SQL query to print the FIRST_NAME from Worker table after removing white spaces from the right side.
Q-8. Write an SQL query that fetches the unique values of DEPARTMENT from Worker table and prints its length.
Q-9. Write an SQL query to fetch nth max salaries from a table.
Q-10. Write an SQL query to print the FIRST_NAME from Worker table after replacing ‘a’ with ‘A’.
Q-11. Write an SQL query to print all Worker details from the Worker table order by FIRST_NAME Ascending and DEPARTMENT Descending.
Q-12. Write an SQL query to fetch the names of workers who earn the highest salary.

Q-13. Write an SQL query to print details of workers excluding first names, “Vipul” and “Satish” from Worker table.
Q-14. Write an SQL query to print details of the Workers whose FIRST_NAME ends with ‘h’ and contains six alphabets.
Q-15. Write a query to validate Email of Employee.
Q-16. Write an SQL query to print details of the Workers who have joined in Feb’2014.
Q-17. Write an SQL query to fetch duplicate records having matching data in some fields of a table.
Q-18. How to remove duplicate rows from Employees table.
Q-19. Write an SQL query to show only odd rows from a table.
Q-20. Write an SQL query to clone a new table from another table.

Q-21. Write an SQL query to fetch intersecting records of two tables.
Q-22. Write an SQL query to show records from one table that another table does not have.

Q-22. Write an SQL query to show the top n (say 10) records of a table.
Q-23. Write an SQL query to determine the nth (say n=5) highest salary from a table.

Q-24. Write an SQL query to determine the 5th highest salary without using TOP or limit method.
Q-25. Write an SQL query to fetch the list of employees with the same salary.

Below is the complete MySQL database setup, along with all the required queries for your task. Each query is labeled according to its question number.

1. Create Database and Table

```sql


-- Create the database
CREATE DATABASE Company;

-- Use the database
USE Company;

-- Create the Worker table
CREATE TABLE Worker (
    WORKER_ID INT AUTO_INCREMENT PRIMARY KEY,
    FIRST_NAME VARCHAR(50),
    LAST_NAME VARCHAR(50),
    DEPARTMENT VARCHAR(50),
    SALARY INT,
    JOINING_DATE DATE,
    EMAIL VARCHAR(100)
);

-- Insert data into Worker table
INSERT INTO Worker (FIRST_NAME, LAST_NAME, DEPARTMENT, SALARY, JOINING_DATE, EMAIL)
VALUES
('Amitabh', 'Bachchan', 'HR', 80000, '2014-02-15', 'amitabh.b@company.com'),
('Vipul', 'Kumar', 'IT', 90000, '2014-03-10', 'vipul.k@company.com'),
('Satish', 'Sharma', 'Finance', 85000, '2014-02-28', 'satish.s@company.com'),
('Amit', 'Singh', 'IT', 75000, '2014-02-05', 'amit.s@company.com'),
('Rahul', 'Verma', 'HR', 60000, '2015-01-10', 'rahul.v@company.com'),
('Mohit', 'Khan', 'IT', 120000, '2014-02-25', 'mohit.k@company.com'),
('Rakesh', 'Sethi', 'Finance', 95000, '2016-05-15', 'rakesh.s@company.com');
```

2. SQL Queries

Q-1 Fetch `FIRST_NAME` using alias `<WORKER_NAME>`.

```sql


SELECT FIRST_NAME AS WORKER_NAME FROM Worker;
```

Q-2 Fetch unique values of `DEPARTMENT`.

```sql
SELECT DISTINCT DEPARTMENT FROM Worker;
```

Q-3 Show the last 5 records.

```sql
SELECT * FROM Worker
ORDER BY WORKER_ID DESC
LIMIT 5;
```

Q-4 Print the first three characters of `FIRST_NAME`.

```sql
SELECT SUBSTRING(FIRST_NAME, 1, 3) AS FIRST_THREE_CHAR FROM Worker;
```

Q-5 Find the position of 'a' in `FIRST_NAME` = 'Amitabh'.

```sql
SELECT INSTR('Amitabh', 'a') AS POSITION;
```

Q-6 Employees with the highest salary in each department.

```sql
SELECT DEPARTMENT, FIRST_NAME, MAX(SALARY) AS HIGHEST_SALARY
FROM Worker
GROUP BY DEPARTMENT;
```

Q-7 Remove trailing spaces from `FIRST_NAME`.

```sql
SELECT RTRIM(FIRST_NAME) AS CLEANED_NAME FROM Worker;
```

Q-8 Fetch unique `DEPARTMENT` values and their length.

```sql
SELECT DISTINCT DEPARTMENT, LENGTH(DEPARTMENT) AS DEPT_LENGTH FROM Worker;
```

Q-9 Fetch the nth max salary.

```sql
SELECT DISTINCT SALARY
FROM Worker
ORDER BY SALARY DESC
LIMIT 1 OFFSET n-1; -- Replace 'n-1' with the desired rank.
```

Q-10 Replace 'a' with 'A' in `FIRST_NAME`.

```sql
SELECT REPLACE(FIRST_NAME, 'a', 'A') AS MODIFIED_NAME FROM Worker;
```

Q-11 Order by `FIRST_NAME` Ascending, `DEPARTMENT` Descending.

```sql
SELECT * FROM Worker
ORDER BY FIRST_NAME ASC, DEPARTMENT DESC;
```

Q-12 Workers with the highest salary.

```sql
SELECT *
FROM Worker
WHERE SALARY = (SELECT MAX(SALARY) FROM Worker);
```

Q-13 Exclude `FIRST_NAME` = 'Vipul' and 'Satish'.

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

Q-14 Workers with `FIRST_NAME` ending with 'h' and 6 letters.

```sql
SELECT *
FROM Worker
WHERE FIRST_NAME LIKE '_____h';
```

Q-15 Validate `EMAIL`.

```sql
SELECT *
FROM Worker
WHERE EMAIL LIKE '%_@__%.__%';
```

Q-16 Workers who joined in Feb 2014.

```sql
SELECT *
FROM Worker
WHERE MONTH(JOINING_DATE) = 2 AND YEAR(JOINING_DATE) = 2014;
```

Q-17 Fetch duplicate records.

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

Q-18 Remove duplicate rows.

```sql
DELETE FROM Worker
WHERE WORKER_ID NOT IN (
    SELECT MIN(WORKER_ID)
    FROM Worker
    GROUP BY FIRST_NAME, LAST_NAME, DEPARTMENT, SALARY, JOINING_DATE, EMAIL
);
```

Q-19 Fetch only odd rows.

```sql
SELECT *
FROM Worker
WHERE MOD(WORKER_ID, 2) <> 0;
```

Q-20 Clone a new table.

```sql
CREATE TABLE Worker_Clone AS
SELECT * FROM Worker;
```

Q-21 Fetch intersecting records between two tables.

```sql
SELECT *
FROM Worker
INTERSECT
SELECT *
FROM AnotherTable; -- Replace AnotherTable with the actual table name.
```

Q-22 Show records from `Worker` not in `AnotherTable`.

```sql
SELECT *
FROM Worker
WHERE WORKER_ID NOT IN (SELECT WORKER_ID FROM AnotherTable);
```

Q-23 Show top 10 records.

```sql
SELECT *
FROM Worker
LIMIT 10;
```

Q-24 5th highest salary without `TOP` or `LIMIT`.

```sql
SELECT MIN(SALARY) AS 5th_HIGHEST_SALARY
FROM (
    SELECT DISTINCT SALARY
    FROM Worker
```

```
    ORDER BY SALARY DESC
    LIMIT 5
) AS Temp;
```

Q-25 Employees with the same salary.

```
sql


SELECT SALARY, GROUP_CONCAT(FIRST_NAME) AS EMPLOYEES
FROM Worker
GROUP BY SALARY
HAVING COUNT(*) > 1;
```

Let me know if you need further assistance!