

## Mentoring Session Week 1

Pl. ensure that “hr\_emp” database is created or downloaded from MYSQL sample databases before getting started with this exercise.

Once MySQL workbench is launched, spend couple of minutes in familiarising participants with MYSQL Workbench options as video has details of SQL lite and hence there is every chance that participants are not familiar with MYSQL Workbench.

Before taking this session, please ensure that participants are well aware and familiar with basic MYSQL commands as in this session focus in on Joins and subquery.

-- Using HR Employees dataset to answer the following questions:

## Question 1

-- Create a HR Employees database.

```
CREATE DATABASE HR_EMP;
```

```
use hr_emp;
```

## Question 2

-- Write a query to view a structure of the table.

```
describe employees;
```

## Question 3

-- Display the details of all employees working in the company.

```
select *
```

```
from employees;
```

## Question 4

-- Display employee id , first name, last name and hiring date of employees, who work in department no 38.

```
select employee_id, first_name, last_name, hire_date
from employees
where department_id = 38;
```

#### ## Question 5

-- Retrieve the phone number, job id and salary of the employee whose name is 'Gopi Kumar'.

```
select phone_number, job_id, salary
from employees
where first_name = "Gopi"
and last_name = "Kumar";
```

#### ## Question 6

-- Retrieve all the distinct salary values from the dataset.

```
select distinct (salary)
from employees;
```

#### ## Question 7

-- Fetch employees who were hired before 1991 February 4th.

```
select *
from employees
where (hire_date < '1991-02-04');
```

#### ## Question 8

-- Write a SQL query to print details of the employees who joined the company in January 1983.(Order by hire date)

```
select *
from employees
where hire_date
between '1983-01-01'
and '1983-01-31'
order by hire_date;
```

## ## Question 9

-- Write a query to fetch employee details from department 77 and department 99.

```
select *  
  
from employees  
  
where department_id  
  
in (77,99);
```

## ## Question 10

-- Write a query to fetch the details of the employees whose salary is in the range of 8000 to 9000.

```
select *  
  
from employees  
  
where salary >= 8000  
  
and salary <= 9000;
```

## ## Question 11

-- Write a SQL query to fetch the details of top 5 employees who earn the highest salary in the company

```
select *  
  
from employees  
  
order by salary desc  
  
limit 5;
```

## ## Question 12

-- Write a SQL query to print details of the employees whose first name starts with 'a' and contains only 4 alphabets.

```
select *  
  
from employees  
  
where length(first_name) = 4  
  
and first_name  
  
like 'a_____';
```

### ## Question 13

-- Write a SQL query to print details of the employees whose first\_name ends with 'h' and contains only 6 alphabets.

```
select *  
from employees  
where first_name  
like '%h'  
and length(first_name) = 6;
```

### ## Question 14

-- Retrieve all the distinct salary values from dataset

```
select distinct salary  
from employees;
```

```
select * from employees;
```

### ## Question 15

-- Write a SQL query to print the first name from employees table after removing white spaces from the right side.

```
select RTRIM(first_name) as Name  
from employees;
```

### ## Question 16

-- Write a SQL query to print the first name from employees table after replacing 'a' with 'A'.

```
select replace(first_name,'a','A') as first_name  
from employees;
```

## ## Question 17

-- Write a SQL query to fetch, if there are any duplicate records in the table.

```
select first_name, last_name, department_id, count(*)  
as cnt  
from employees  
group by first_name, last_name, department_id  
having count(*) > 1;
```

## ## Question 18

-- Select the names of employees whose salary is greater than the average salary of all employees in department 42.

```
select first_name, last_name  
from employees  
where department_id = 42  
group by salary  
having salary > avg(salary);
```

## ## Question 19

-- Write a sql query to fetch the details of an employee

-- Generate another as commission percentage column. And wherever there are null values in this column, convert it to 0.

```
select employee_id, first_name, salary, commission_pct,  
coalesce(commission_pct,0)  
from employees;
```

## ## Question 20

-- Find out how many employees are in department 99.

```
select count('first_name')  
as Number_of_Employees  
from `employees`  
where `department_id` = 99;
```

### ## Question 21

-- Write a query to get the number of employees with the same job.

```
select department_id, COUNT(*) as Number_of_Employees  
from employees  
group by department_id;
```

### ## Question 22

-- Write a query to get the difference between the highest and lowest salaries.

```
SELECT MAX(salary) - MIN(salary) DIFFERENCE  
FROM employees;
```

### ## Question 23

-- Write a query to get the department ID and the total salary payable in each department.

```
select department_id, SUM(salary)  
from employees  
group by department_id;
```

### ## Question 24

-- Write a query to find the manager ID and the first name, last name and salary of the lowest-paid employee for that manager.

```
SELECT manager_id, first_name, last_name, MIN(salary)  
FROM employees  
WHERE manager_id IS NOT NULL  
GROUP BY manager_id  
ORDER BY MIN(salary) DESC;
```

## ## Question 25

-- Write a query to find the details of employees, who got hired very early and got commission percentage.

```
SELECT first_name, last_name, salary, commission_pct, min(hire_date)
FROM employees
WHERE commission_pct IS NOT NULL
GROUP BY hire_date
ORDER BY MIN(hire_date) asc;
```

## ## Question 26

-- Write a query to get the job\_id and related employee's id.

```
select job_id, GROUP_CONCAT(employee_id, ' ') as 'Employees ID'
from employees
group by job_id;
```