Lab - 2 : SQL
Mysql queries

Query-00: Retrieve all rows and all columns of following tables:

-- 'department'
-- 'dependent'
-- 'dept_locations'
-- 'employee'
-- 'project'
-- 'works_on'.

Query-01: Retrieve First name and last name of ALL employees.

Query-02: Retrieve details of all male employees who draw a salary which is at least 30000.

Query-03: Retrieve the details of all dependents of essn 333445555.

Query-04: Retrieve details of projects that are based out Houston or Stafford.

Query-05: Retrieve details of projects that are based out Houston or belongs to department 4.

Query-06: Display the name of the department and the year in which the manager was appointed (Hint: Use the YEAR() function YEAR(mgr_start_date).

Query-07: a. Display the SSN of all employees who live in Houston.
(Hint: use LIKE() function as in address LIKE '%Houston'.
b. Display employees whose name begins with J.

Query-08: Display details of all (male employee who earn more than 30000) or female employees who earn less than 30000).

Query-09: Display the essn of employees who have worked between 25 and 50 hours

a. Use AND clause.
b. use BETWEEN clause as in Hours between 25 and 30.

Query-10: Display the names of projects that are based out of houston or stafford

a. Use OR clause

b. Use IN clause as in Plocation in ('Houston', 'Stafford').

Query-11: Display the names of the project that are neither based out of houston nor out of stafford.

a. Use AND/OR clause

b. use NOT IN clause as in Plocation NOT IN ('Houston','Stafford').

Query-12: Display the ssn and **fully concatenated name** of all employees

(Hint: Use CONCAT function).

Query-13: Display the employee details who does not have supervisor

(Hint: Use IS NULL).

Query-14: Display the ssn of employees sorted by their salary in ascending mode

(Hint: Use ORDER by SALARY).

Query-15: Sort the works_on table based on Pno and Hours.

Query-16: Display the average project hours. (Hint: Use AVG. Similarly try using other aggregate functions like: min, max, sum).

Query-17: Display the number of employees who do not have a manager.

Query-18: What is the average salary of employees who do not have a manager.

Query-19: What is the highest salary of female employees.

Query-20: What is the least salary of male employees.

Query-21: Display the number of employees in each department.

Query-22: Display the average salary of employees (department-wise and gender-wise).
(Hint: Use GROUP BY).

Query-23: Display the number of male employees in each department.

Query-24: Display the average, minimum, maximum hours spent in each project.

Query-25: Display the year-wise count of employees based on their year of birth.

Query-26: Display the number of projects each employee is working on.

Query-27: Display the Dno of those departments that has at least 3 employees.

Query-28: Among the people who draw at least 30000 salary,
what is the department-wise average?

Query-29: Among the departments that have at least 3 employees,
what is the department-wise average salary?

b. Same as above query but, instead of dno, display dname.

Query-30: Display the fname of employees working in the Research department.

Query-31: Display the fname and salary of employees whose salary is more than the average salary of all the employees.

Query-32: Which project(s) have the least number of employees?

a. Use nested query.
b. Using 'WITH' statement.

Query-33: Display the fname of those employees who work for at least 20 hours.

a. Use nested query.
b. Using 'WITH' statement.

Query-34: What is the average salary of those employees who have at least one dependent.

Query-35: List down the employee details along with his/her complete department details.

Query-36: Display the ssn, lname, name of project of all the employees

Query-37: Display the ssn, their department, the project they work on and the name of the department which runs that project
(Hint: Needs a 5 table join. Output heading: ssn, emp-dept-name, pname, proj-dept-no).

b. Display the deptname, the project the department runs
(Output heading: dept-name, pname).

Query-38: **What is the name of the department that has least number of employees?**
(Also by using 'WITH' statement).

Query-39: **What is the name of the department whose employees have the highest average salary?**

Query-40. Display the fname of the employee along with the fname of the manager.

Query-41: **Which employees work on projects belonging to departments other than departments they belong to.**

(Output: ssn, pname, emp-dept-name, proj-dept-name).

Query-42: List employees with only his/her dependents. (Use Inner Join).

Query-43: Display employees and their dependents.

(Including Employees Without Dependents).

Query-44: Display the dependents and their employee guardians.

(Including Dependents without Guardians. **Do they EXISTS?**).

Query-45: Report the top paid 3 employee names. (TOP-N where N = 3).