**Part 01**

**Use ITI DB**

1. Retrieve a number of students who have a value in their age.
2. Display number of courses for each topic name
3. Select Student first name and the data of his supervisor
4. Display student with the following Format (use isNull function)

| Student ID | Student Full Name | Department name |
| --- | --- | --- |
|  |  |  |

1. Select instructor name and his salary but if there is no salary display value ‘0000’ . “use one of Null Function”
2. Select Supervisor first name and the count of students who supervises on them
3. Display max and min salary for instructors
4. Select Average Salary for instructors
5. Display instructors who have salaries less than the average salary of all instructors.
6. Display the Department name that contains the instructor who receives the minimum salary

**Part 02**

**Use MyCompany DB**

**DQL:**

1. For each project, list the project name and the total hours per week (for all employees) spent on that project.
2. For each department, retrieve the department name and the maximum, minimum and average salary of its employees.
3. Retrieve a list of employees and the projects they are working on ordered by department and within each department, ordered alphabetically by last name, first name.
4. Try to update all salaries of employees who work in Project ‘Al Rabwah’ by 30%

**DML:**

1. In the department table insert a new department called "DEPT IT" , with id 100, employee with SSN = 112233 as a manager for this department. The start date for this manager is '1-11-2006'.
2. Do what is required if you know that : Mrs.Noha Mohamed(SSN=968574) moved to be the manager of the new department (id = 100), and they give you(your SSN =102672) her position (Dept. 20 manager)
   1. First try to update her record in the department table
   2. Update your record to be department 20 manager.
   3. Update the data of employee number=102660 to be in your teamwork (he will be supervised by you) (your SSN =102672)
3. Unfortunately the company ended the contract with Mr.Kamel Mohamed (SSN=223344) so try to delete him from your database in case you know that you will be temporarily in his position.

Hint: (Check if Mr. Kamel has dependents, works as a department manager, supervises any employees or works in any projects and handles these cases).

**Part 03**

* **Using MyCompany Database and try to create the following Queries:**

1. Retrieve the names of all employees in department 10 who work more than or equal 10 hours per week on the "AL Rabwah" project.
2. Retrieve the names of all employees and the names of the projects they are working on, sorted by the project name
3. For each project located in Cairo City , find the project number, the controlling department name ,the department manager last name ,address and birthdate.
4. Display the data of the department which has the smallest employee ID over all employees' ID.
5. List the last name of all managers who have no dependents
6. For each department-- if its average salary is less than the average salary of all employees display its number, name and number of its employees.
7. Try to get the max 2 salaries using subquery