

## Lab 4

### SQL

1. For each project, list the project name and the total hours per week (for all employees) spent on that project.
2. Display the data of the department which has the smallest employee ID over all employees' ID.
3. For each department, retrieve the department name and the maximum, minimum and average salary of its employees.
4. 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.
5. Try to get the max 2 salaries (using subquery - bonus)
6. Get the full name of employees that is similar to any dependent name
7. Insert your personal data to the employee table as a new employee in department number 30, SSN = 102672, Superssn = 112233, salary=3000.
8. Insert another employee with personal data your friend as new employee in department number 30, SSN = 102660, but don't enter any value for salary or supervisor number to him.
9. Upgrade your salary by 20 % of its last value.
10. In the department table insert 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'
11. 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)
  - a. First try to update her record in the department table
  - b. Update your record to be department 20 manager.
  - c. Update the data of employee number=102660 to be in your teamwork (he will be supervised by you) (your SSN =102672)
12. Unfortunately the company ended the contract with Mr. Kamel Mohamed (SSN=223344) so try to delete his data 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 handle these cases).
13. Try to update all salaries of employees who work in Project 'Al Rabwah' by 30%
14. Display the employee number and name if at least one of them have dependents (use exists keyword)
15. Retrieve a list of employees names and the projects names they are working on ordered by department number and within each department, ordered alphabetically by last name, first name.