

## Mid-Term Exam (Database II) for the Academic Year 2022/2023

Given the following relational schema:

**Employees** (Employee\_Id, First\_Name, Last\_Name, Email, Phone\_Number, Hire\_Date, Job\_Id\*, Salary, Commission\_Pct, Manager\_Id, Department\_Id\*)

**Departments** (Department\_Id, Department\_Name, Manager\_Id, Location\_Id\*)

**Jobs** (Job\_Id, Job\_Title, Min\_Salary, Max\_Salary)

### Questions:

1. Create the table employees taken into consideration the following constraints:
  - a. Employee\_id is the primary key
  - b. Last\_name cannot contain null value
  - c. Phone\_number and commission\_pct contain Null as initial value
  - d. Hire\_date cannot exceed the current date and cannot contain null value.
  - e. Salary contains positive values and cannot exceed 5000.
2. Create table department. Note that the department\_id is the primary key.
3. Write SQL-Statement to insert a new employee.
4. Write SQL Statement to increase the salary of all employees working in department number 60 by 15%.
5. Write SQL statement to delete the employee number 234.
6. Write SQL statement to delete the column email from table employees.
7. Write SQL statement to add the constraint referential integrity to table employees.
8. Write SQL Statement to add the column email to table employees.
9. Write the SQL statement to change the field size of first\_name to 35 characters.
10. **Formulate the following queries:**
  - a. Write a query to list the name of all the employees who are working in department number 20.
  - b. Write a query to list the employees name and total salary of a year and yearly salary is more than \$10000.
  - c. Write a query to list the name of all the employees who are not working in department number 20.
  - d. Write a query to list the name of all the employees who are Not working in Finance department
  - e. Write a query to list the names, salary of all the employees who are working with a **commission package (earn a commission)**.
  - f. Write a query to list the name, salary of all the employees where employee first name belongs in a specified list (for example Ahmad, Zeinab, hadil, ...).
  - g. Write a query to list the names (first and last) of those employees whose name **have second alphabet 's'** in their names.
  - h. Write a query to get the the first\_name and last\_name of the employees who are working as 'STOCK CLERK', 'SALES MANAGER' or 'IT PROGRAMMER' and drawing a salary more than 3000.
  - i. Find all employees who earn more than every employee has job as 'IT PROGRAMMER'.