## National University of Computer & Emerging Sciences, Karachi Fall-2023 School of Computing Lab - Mid Examination, Fall 2023



16th Oct, 2023, 12:30 pm - 2:00 pm

Paper A Course Name: Database Lab Course Code: CL2001 Instructors: Mr. Shaheer Ahmad Khan Section: BSCS-5J Student Roll No:

## Instructions:

READ carefully the following instructions before attempting the paper.

- . Except your Roll No and Section, DO NOT WRITE anything on this paper.
- The Exam consists of 2 questions on 2 pages.
- In case of any ambiguity, you may make assumptions but your assumption must not contradict any statement in the question paper.
- Create a folder named according to Roll\_No. Files should be named according to Roll\_No. e.g. k221234\_Q1. SQL, k221234\_Q2.SQL etc. Then ZIP/RAR the folder which includes all your
- Submission on IP (Win + R): \\172.16.5.43\Exam Submission\Shaheer Ahmad\DB\_lab\Section

Time: 90 Minutes

Max Marks: 25 Marks

Question No.1 [LLO:4] [Estimated Time: 35 Minutes]

[15 Marks]

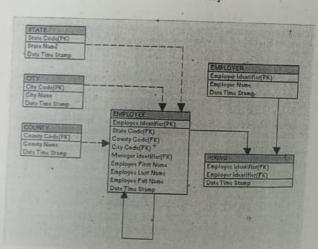


Fig:1

Using the above figure 1 of relational model do perform the following task:

- 1. Create DDL script.
- 2. Add all the necessary keys and other constraints in the script.
- Delete the table "HIRING" and create new table "SALARY" representing the salary offered by an employees to an employer to an employee & the contract period(days).
- 4. delete the table "Employer".

- 1. Write a query to retrieve employees who have been employed in multiple departments, including their start and end dates in each department.
  - 2. Write a query to update department\_id of all employees to be equal to the one with state province Texas, given that its initial value is NULL.
- Write a query to find the departments with the highest and lowest salary payouts, along with the total number of employees in each department.
- 4. Write a query to identify the ten most senior employees and display their tenure periods.
- 5. List employees whose salaries, after a 20% increment, are still below 3000.
- Write a query to display Department ID, Department Name, Manager Name, Manager Salary, and Department City.
- 7. Write a query to display all employee information for those whose salary falls within the range of the lowest salary and 2500.
- 8. Write a query to retrieve the names of employees whose salary exceeds 50% of their department's total salary expenditure.
- -9. SQL query to retrieve the full name, job title, start date, and end date of the most recent job held by employees who did not receive any commission.
- Query to calculate the total salary for each state where the second letter of the state name is 'a'.

**GOOD LUCK...**