

Assignment on Database Management System

Q1.

Student

| ID | Mark1 | Mark2 | Mark3 | Mark4 | Average_mark |
|----|-------|-------|-------|-------|--------------|
| 1 | 40 | 50 | 60 | 70 | |
| 2 | 60 | 70 | 75 | 76 | |
| 3 | 83 | 56 | 90 | 40 | |
| 4 | 70 | 80 | 40 | 90 | |

Student_log

| Log_ID | Student_ID | Operation | Log_timestamp |
|--------|------------|-----------|---------------|
| 1 | 1 | insert | |
| 2 | 4 | update | |

Using trigger

- Insert values into Average_mark column using trigger
- Insert data in Student_log table when any row inserted into student table like row 1
- Perform update operation on Student table that will trigger to insert a row into Student_log table like row 2

Q2.

Consider the following schemas:

Course (ID, name, course_code)

Student (ID, name, email phone)

Enrollment (ID, Course_ID, student_ID, enrollment_date, enrollment_status)

- a) Write an SQL query to list all of the student ID, name and email in ascending order of ID who are enrolled in course with code "CSE311".
- b) Write an SQL query find the name and ID of the student who enrolled in "Database management system" course after 15th. March 2023.
- c) Write an SQL query to find out the total number of the students in each course with course name.
- d) Write an SQL query to find course names that have more than 15 student enrolment.

Q3.

Consider the following tables:

| Ticket No | Travel Date | Travel Time | Seat No | Passenger ID | Bus No |
|-----------|-------------|-------------|---------|--------------|--------|
| T301 | 03-06-2024 | 10:30AM | D3 | 163-15-2458 | S_04 |
| T301 | 03-06-2024 | 10:30AM | D4 | 163-15-2458 | S_04 |
| T302 | 03-06-2024 | 10:30AM | B1 | 163-15-2460 | S_08 |
| T302 | 03-06-2024 | 10:30AM | B1 | 163-15-2460 | S_08 |
| T302 | 03-06-2024 | 10:30AM | A1 | 163-15-2460 | S_08 |
| T304 | 05-06-2024 | 10:30AM | E1 | 181-15-1202 | S_12 |
| T305 | 07-06-2024 | 10:30AM | D1 | 191-15-1202 | S_12 |

| Bus No | Bus Name | Staff | Route Name |
|--------|------------------|-------|------------|
| S_04 | Surjomukhi 4 | Ahsan | Dhanmondi |
| S_08 | Surjomukhi 8 | Sajib | Uttra |
| S_12 | Surjomukhi 12 | Sajal | Mirpur |

| Passenger ID | Passenger Name | Passenger Contact |
|--------------|----------------|-------------------|
| 163-15-2458 | Maruf | 017354856151 |
| 163-15-2460 | Jakir | 018945555544 |
| 181-15-1202 | Javed | 015845455456 |
| 191-15-1202 | Bristy | 019418425844 |

- Write SQL query to find the seat numbers of student bearing ID 163-15-2460 traveling on 03-06-2024 at 10:30 AM.
- Find the contact information of the passenger who bought ticket number T302
- List the name of the student who have traveled to Uttra between 03-06-2024 to 09-06-2024.
- Find the names of the staff who assisted the passenger with ticket number T302.