Republic of the Philippines

**SOUTHERN LUZON STATE UNIVERSITY**

Lucban, Quezon

Bachelor of Science in Information Technology

ITE11 – DATABASE MANAGEMENT SYSTEMS 2

**Midterm Laboratory Exam**

NAME: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Score: \_\_\_\_\_\_\_\_\_\_\_

**Case Scenario: University Student Portal**

You are hired as a database developer to design and manipulate the data for a university student portal. Your tasks include creating tables, inserting records, and retrieving information as requested by the administration.

Part I: DDL (Data Definition Language) **(10 points)**

Task 1: Create the following tables:

1. **Students**
   * student\_id INT PRIMARY KEY
   * first\_name VARCHAR(50)
   * last\_name VARCHAR(50)
   * email VARCHAR(100) UNIQUE
   * enrollment\_date DATE
2. **Courses**
   * course\_id INT PRIMARY KEY
   * course\_name VARCHAR(100)
   * credits INT
3. **Enrollments**
   * enrollment\_id INT PRIMARY KEY
   * student\_id INT (Foreign Key to Students)
   * course\_id INT (Foreign Key to Courses)
   * grade CHAR(2)

Part II: DML (Data Manipulation Language) **(20 points)**

Task 2: Insert sample data into the tables.

* Insert **at least 3 students**.
* Insert **at least 3 courses**.

Part III: DQL (Data Query Language) **(20 points)**

Task 3: Write queries for the following:

1. **List all students** with their full name and email.
2. Show all **students enrolled in “Database Systems”**.
3. Find the **student(s) with the highest average grade**.

**Rubrics for Grading (Total: 50 points)**

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| **Category** | **Task Description** | **Points** | **Evaluation Criteria** |
| **DDL** | Create Students, Courses, Enrollments tables with appropriate data types and constraints | **10 pts** | - All tables created correctly  - Proper use of PK, FK, UNIQUE  - Accurate data types and naming |
| **DML** | Insert sample data into all three tables | **20 pts** | - At least 3 students  - At least 3 courses |
| **DQL** | Write SELECT queries to retrieve and analyze data | **20 pts** | - Query 1: All students (full name, email)  - Query 2: Students in DB Systems |

Prepared by: Checked by: Approved by:

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