



Course Title: Database Management System Laboratory **Course Code:** CSE238

Level/Term: 2/2 **Section:** C, D, A **Credit:** 1.5 **Contact Hours:** 3 hours/week **Prerequisite:** None **Type:**

Core Session: FALL 2023

Instructor: Jannathul Maowa Hasi, Lecturer, Dept. of CSE, PU.

Class schedule: A: Monday (8:30 – 11:30 AM);

C: Tuesday (2:30 – 5:30 PM);

D: Sunday (8:30 – 11:30 AM);

Counseling Time: A: Tuesday (11:30 AM – 12:30 PM) C: Tuesday (12:30 PM – 1:30 PM)

D: Wednesday (2:30 PM – 3:30 PM)

Room No: 507

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Rationale:

This course is designed to introduce the concept of real-world database design through the implementation of a database-driven real-time project.

Course Objectives:

The objectives of this course are:

1. To facilitate necessary knowledge about the design of a database based on various scenarios.
2. To develop a real-world database application.

Course Outcomes (COs):

By the end of the course, students will be able to:

CLO	1 <i>Execute (C3)</i> query language using database panel or application programming
CLO	2 <i>Design (C6)</i> a database for a given problem considering different anomalies
CLO	3 <i>Develop (C6)</i> an individual or group project based on a real scenario and prepare documentation

CO-PO Mapping:

					Week	Topic
COs					Week 01	Advantages of DBMS DDL commands (CREATE, DROP, ALTER), important column types, report writing
	PO1			PO2		
CO1	√				Week 02	SQL Queries: SELECT, WHERE, RENAME, OPERATORS, DISTINCT, LIMIT, BETWEEN, IN, NOT IN, CONCAT
CO2			√			
CO3			√			

Assessment:

Category	Week 03	SQL Queries: DATE, TIME, FUNCTIONS, UPDATE, DELETE, GROUP BY, Subquery, Referential Integrity Constraints Project Assessment
Class Assessment		
Lab Performance		
Project		
Presentation / Viva		
Report		
Total		

References:

<https://www.w3schools.com>
<https://www.mysqltutorial.org>

Weekly Schedule:

Week 04	Web page design and server-side program language (PHP), variables, branching, looping, array, associative array, connecting to database	Lecture	CLO	1 Class Performance
Week 05	Responsive page design, SQL from application – create, read, where, order by, group by	Lecture	CLO	1 Class Performance
Week 06	SQL from application program and delete join, aggregate functions	Lecture	CLO	1 Class Performance
Week 07	SQL from application program authentication authorization	Lecture	CLO	1 Class Performance
Week 08	SQL Trigger, delimiter, CASE statement variables inside trigger, Views Functions, Stored Procedure	Lecture	CLO	1 Class Performance
Week 09	Project Progress	Provide Feedback	CLO3	Project
Week 10	Designing ER diagram from a given scenario relation, Normalization	Lecture	CLO	2 Class Performance Assignment
Week 11	Project Progress	Provide Feedback	CLO3	Project

Week 12	Project Submission	Provide Feedback	CLO	3 ProjectRep
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