

Lab Code	Lab Name	Credit
CSL402	Database Management system Lab	1

**Prerequisite:** Discrete Structures

**Lab Objectives:**

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| 1 | To explore design and develop of relational model                    |
| 2 | To present SQL and procedural interfaces to SQL comprehensively      |
| 3 | To introduce the concepts of transactions and transaction processing |

**Lab Outcomes:** At the end of the course, the students will be able to

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| 1 | Design ER /EER diagram and convert to relational model for the realworld application.          |
| 2 | Apply DDL, DML, DCL and TCL commands   |
| 3 | Write simple and complex queries   |
| 4 | UsePL / SQL Constructs.  |
| 5 | Demonstrate the concept of concurrent transactions execution and frontend-backend connectivity |

**Suggested List of Experiments**

Sr. No.	Title of Experiment
1	Identify the case study and detail statement of problem. Design an Entity-Relationship (ER) / Extended Entity-Relationship (EER) Model.
2	Mapping ER/EER to Relational schema model.
3	Create a database using Data Definition Language (DDL) and apply integrity constraints for the specified System
4	Apply DML Commands for the specified system
5	Perform Simple queries, string manipulation operations and aggregate functions.
6	Implement various Join operations.
7	Perform Nested and Complex queries
8	Perform DCL and TCL commands
9	Implement procedure and functions
10	Implementation of Views and Triggers.
11	Demonstrate Database connectivity
12	Implementation and demonstration of Transaction and Concurrency control techniques using locks.

**Term Work:**

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| 1 | Term work should consist of 10 experiments.  |
| 2 | Journal must include at least 2 assignments on content of theory and practical of “Database Management System”                                       |
| 3 | The final certification and acceptance of term work ensures that satisfactory performance of laboratory work and minimum passing marks in term work. |
| 4 | Total 25 Marks (Experiments: 15-marks, Attendance Theory& Practical: 05-marks, Assignments: 05-marks)  |

**Oral & Practical exam**