

DATABASE MANAGEMENT SYSTEMS LAB

(Common to both CSE , IT, CSE(AI&ML))

Course Code: 22CT1108

L	T	P	C
0	0	3	1.5

Course Outcomes: At the end of the course the student shall be able to

CO1: Apply data definitions and data manipulation commands.(L3)

CO2: Apply nested queries and sub queries.(L3)

CO3: Demonstrate database applications with joins and views. (L3)

CO4: Use functions, procedures, and procedural extensions of databases. (L3)

CO5: Use Cursors, Triggers, and Exception Handling mechanism.(L3)

LIST OF EXPERIMENTS:

(Any 12 experiments from the following to be performed)

1. Data Definition Commands, Data Manipulation Commands for inserting and deleting data from Tables.
2. Data Manipulation Commands for updating and retrieving of data from Tables and Transaction Control statements
3. Basic functions like Numeric, String, Date, and conversion functions.
4. Database Querying – Simple queries.
5. Queries using aggregate functions, GROUP BY, and HAVING clauses.
6. Database Querying – Nested queries, Sub-queries.
7. Queries using Joins
8. Queries using Views

PROGRAMS USING PL/SQL:

9. Procedures and Functions.
10. Implicit and Explicit Cursors
11. Triggers
12. Exception Handling

CASE STUDIES: *Students shall form in groups at the beginning of the semester and perform at least one of the following questions by the end of the semester and submit a project.*

13. Design a Database for any real-life application using ER model and normalize it.
14. Connect the Database through any programming language
15. Build real-life database applications.

16. Basic operations on some NoSQL databases like MongoDB, Cassandra Graph Database(NEO4j).

TEXTBOOK:

1. ElmasriNavathe, *Fundamentals of Database Systems*, 7th Edition, Pearson Education, 2017.

REFERENCES:

1. C.J.Date, *Introduction to Database Systems*, 8th Edition, Pearson Education, 2003.
2. Peter Rob & Carlos Coronel, *Database Systems design, Implementation, and Management*, 9th Edition, Pearson Education, 2009.