**ADBMS Lab schedule**

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| **SL.NO** | **LAB EXPERIMENTS** | **DATE** | **Approx.Date** | **Actual date** |
| **1** | **Introduction to Relational Databases & ER Model** | **Week 1,2** | **5/02/2025,12/02/2025** | **5/02/2025,12/02/2025** |
| **2** | **Implementing Constraints in Relational Databases** | **Week 3,4** | **26/002/2025,05/03/2025** | **26/002/2025,05/03/2025** |
| **3** | **Advanced SQL - Joins and Subqueries** | **Week 5,6** | **12/03/2025,19/03/2025** |  |
| **4** | **Working with Views and Triggers**  **Transaction Management and Concurrency Control** | **Week7,8** | **26/03/2025,02/04/2025** |  |
| **5** | **Object-Oriented Databases and Complex Data Types**  **NoSQL Database (MongoDB) Basics** | **Week 9**  **Week 10** | **09/04/2025,16/04,2025** |  |

**LIST OF LAB EXPERIMENTS**

**MODULE 1( LAB CYCLE 1) (CO1)**

**Lab Experiment 1: Introduction to Relational Databases & ER Model**

1. Understand the basics of relational databases and their applications.
2. Design an Entity-Relationship (ER) diagram for a simple scenario (e.g., Library Management System).
3. Convert the ER diagram to a relational schema and implement it in SQL.

**Lab Experiment 2: Implementing Constraints in Relational Databases**

1. Create a database with various constraints (Primary Key, Foreign Key, Unique, Not Null).
2. Demonstrate the enforcement of entity integrity and referential integrity using SQL.

**MODULE 2 LAB CYCLE 1) (CO2)**

**Lab Experiment 3: Advanced SQL - Joins and Subqueries**

* Implement different types of joins (INNER, LEFT, RIGHT, FULL OUTER).
* Use subqueries (both nested and correlated) in SELECT, INSERT, UPDATE, and DELETE statements.

**MODULE 3 ( LAB CYCLE 2) (CO3)**

**Lab Experiment 5: Working with Views and Triggers**

* Create and manage views in SQL, including updatable views.
* Implement triggers to automatically handle insert, update, or delete actions.

**Lab Experiment 6: Transaction Management and Concurrency Control**

* Implement basic transaction control (BEGIN, COMMIT, ROLLBACK).

**MODULE 5 ( LAB CYCLE 2) (CO5)**

**Lab Experiment 9: Object-Oriented Databases and Complex Data Types April 2**

* Implement complex data types (arrays, multisets, structured types) in SQL.
* Work with inheritance and object identity in SQL databases.

**Lab Experiment 10: Build an application using MYSQL Database or MongoDB April 3**

* **Design and build a simple database system and demonstrate competence with the fundamental tasks involved with modeling, designing, and implementing a DBMS**..