

Day-1

Software Engineering & SDLC Phases	<ul style="list-style-type: none">• Evolution of Software• Life Cycle Phases• Planning Analysis• Requirements Analysis• Design and Prototyping• Development of the Application• Testing and Deployment• Project Management
Flow Chart and Pseudocode	<ul style="list-style-type: none">• Pre-code planning• Pseudocode• Verify Algorithm• Flowchart

Day-2

Architecture and Normalization Concepts	<ul style="list-style-type: none">• Describe a DBMS, its components, and advantages for users.• Describe the features and characteristics of flat-file, hierarchical, and XML database models.• Levels of a DBMS architecture• Types of constraints• Describe normalization in relation to designing a database.• Perform first normal form when designing a database.• Perform second normal form when designing a database.• Perform third normal form when designing a database.• Perform BCNF when designing a database.
ER Diagram	<ul style="list-style-type: none">• Describe entity-relationship modeling for a RDBMS• Define Entities, Attributes, Relationships• Degree of relationships• Cardinality of relationships• Relational Database Model• Create an ERD for a database based on a Scenario.

Day-3

Introduction to SQL	<ul style="list-style-type: none">• What is a Database?• What is SQL?• What is MySQL?• SQL Commands
Database Connection	<ul style="list-style-type: none">• Launch MySQL Workbench• Connect to MySQL Server• Creating a new Database• Data Types• CAST or CONVERT• Keys in SQL• Constraints
DDL Commands	<ul style="list-style-type: none">• DDL Commands• Add table to Database• Describe Table• Alter Table• Modify and Drop Clause• Data manipulation
Query Clauses	<ul style="list-style-type: none">• Database schema• Import Data• Query Clauses• Column Alias

| • Table Alias