ATME College of Engineering

Department of Computer Science & Design

Lesson Plan & Work-done Diary for AY: 2024-25,EVEN Semester

Course with Code: Data Base management system-BCS403				**Faculty:** Harshitha H B			**Semester & Section:** IV	
Class No.	**Date planned (DD/MM)**	**Topics to be covered**	**TLP Planned**	**Class No.**	**Date of Conduction (DD/MM)**	**Topics Covered**	**TLP Executed**	**Remarks if any deviation**
MODULE-1								
1.		**Introduction**	PPT	1.				
2.		Introduction to Databases, Characteristics of database approach,	PPT	2.				
3.		Advantages of using the DBMS approach, History of database applications.	PPT	3.				
4.		Data Models, Schemas, and Instances. Three schema architecture	PPT	4.				
5.		data independence, database languages, and interfaces, The Database System environment	PPT	5.				
6.		Operating System Services :User - Operating System interface; System calls, Types of system calls	PPT	6.				
7.		Entity types, Entity sets and structural constraints, Weak entity types	PPT	7.				
8.		ER diagrams, Specialization and Generalization.	PPT	8.				
9.		Revision, Module End Question discussion, Quiz	My Quiz App	9.				

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MODULE-2								
1.		Relational Model Concepts, Relational Model Constraints	PPT	1.				
2.		relational database schemas, Update operations, transactions, and dealing with constraint violations.	PPT	2.				
3.		Unary and Binary relational operations	PPT	3.				
4.		additional relational operations (aggregate, grouping, etc.) Examples of Queries in relational algebra.	PPT	4.				
5.		Relational Database Design	PPT	5.				
6.		Design using ER-to-Relational mapping.	PPT	6.				
7.		Thread scheduling ;	PPT	7.				
8.		Multiple-processor scheduling;	PPT	8.				
9.		Revision, Module End Question discussion, Quiz	my Quiz App	9.				

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MODULE-3								
1.		Introduction to Normalization using Functional and Multivalued Dependencies:	PPT	1.				
2.		Informal design guidelines for relation schema, Functional Dependencies	PPT	2.				
3.		Normal Forms based on Primary Keys, Second and Third Normal Forms, Boyce-Codd Normal Form,	PPT	3.				
4.		Multivalued Dependency and Fourth Normal Form, Join Dependencies and Fifth Normal Form.	PPT	4.				
5.		SQL data definition and data types, Schema change statements in SQL	PPT	5.				
6.		specifying constraints in SQL, retrieval queries in SQL, INSERT, DELETE	PPT	6.				
7.		UPDATE statements in SQL, Additional features of SQL	PPT	7.				
8.		Revision, Module End Question discussion, Quiz	My Quiz App	8.				

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MODULE-4								
1.		Advanced Queries: More complex SQL retrieval queries,	PPT	1.				
2.		Specifying constraints as assertions and action triggers, Views in SQL.	PPT	2.				
3.		Introduction to Transaction Processing, Transaction	PPT	3.				
4.		System concepts, Desirable properties of Transactions, Characterizing schedules based on recoverability,	PPT	4.				
5.		Characterizing schedules based on Serializability, Transaction support in SQL.	PPT	5.				
6.		Revision, Module End Question discussion, Quiz	My Quiz App	9.				

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MODULE-5								
1.		Two-phase locking techniques for Concurrency control, Concurrency control based on Timestamp ordering	PPT	1.				
2.		Multi version Concurrency control techniques, Validation Concurrency control techniques,	PPT	2.				
3.		, Granularity of Data items and Multiple Granularity Locking.	PPT	3.				
4.		Introduction to NOSQL Systems, The CAP Theorem,	PPT	4.				
5.		Document-Based NOSQL Systems and MongoDB,	PPT	5.				
6.		NOSQL Key-Value Stores, Column-Based or Wide Column NOSQL Systems,	PPT	6.				
7.		NOSQL Graph Databases and Neo4j	PPT	7.				
8.		Revision, Module End Question discussion, Quiz	My Quiz App	8.				

	Activity	Planned	Actual	Remarks
1	Theory Classes	35		
2	Assignments/ Quizzes/ Self-study	2/5		
3	Tutorials/ Extra classes	-		
4	Internal Assessments	3		
5	ICT based Teaching (% of usage in Curriculum)	100		
Planning			**Execution**	
Faculty Signature:			**Faculty Signature:**	
HoD Signature:			**HoD Signature:**	