



DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING - DATA SCIENCE

Lesson Plan & Work-done Diary for AY: 2026-27, ODD Semester

Course with Code: NOSQL Databases- BCD515C				Faculty: Mr. J N Karthik			Semester & Section: 5 th	
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		(Module1) The Value of Relational Databases, Getting at Persistent Data, Concurrency	PPT					
2		Integration, A (Mostly) Standard Model, Impedance Mismatch, Application and Integration Databases	PPT					
3		Attack of the Clusters, The Emergence of NoSQL	PPT					
4		Aggregates, Example of Relations and Aggregates, Consequences of Aggregate Orientation	PPT					
5		Summarizing Aggregate-Oriented Databases. More Details on Data Models	PPT					
6		Relationships, Graph Databases, Schema less Databases	PPT					
7		Materialized Views,	PPT					
8		Revision	PPT					





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MODULE-2								
9		(Module2) Distribution Models:	PPT					
10		Single Server, Sharding, Master-Slave Replication	PPT					
11		Peer-to-Peer Replication, Combining Sharding and Replication	PPT					
12		Consistency:	PPT					
13		Update Consistency, Read Consistency, Relaxing Consistency,	PPT					
14		The CAP Theorem	PPT					
15		Version Stamps: Business and System Transactions	PPT					
16		Version Stamps on Multiple Nodes s, Version Stamps on Multiple Nodes	PPT					



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MODULE-3								
17		(Module3) Basic Map-Reduce, Partitioning and Combining, Composing Map-Reduce Calculations	PPT					
18		A Two Stage Map-Reduce Example , Incremental Map-Reduce	PPT					
19		Key-Value Databases: What Is a Key-Value Store, Key-Value Store Features	PPT					
20		Consistency, Transactions, Query Features, Structure of Data, Scaling, Suitable Use Cases:	PPT					
21		Storing Session Information, User Profiles, Preference, Shopping Cart Data	PPT					
22		When Not to Use: Relationships among Data,	PPT					
23		Multioperation Transactions, Query by Data, Operations by Sets	PPT					
24		Revision	PPT					





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MODULE-4								
25		(Module4) Document Databases: What Is a Document Database?	PPT					
26		Features: Consistency, Transactions, Availability, Query Features, Scaling,	PPT					
27		Suitable Use Cases: Event Logging, Content Management Systems,	PPT					
28		Blogging Platforms,	PPT					
29		Web Analytics or Real-Time Analytics	PPT					
30		ECommerce Applications	PPT					
31		When Not to Use: Complex Transactions Spanning Different Operations	PPT					
32		Queries against Varying Aggregate Structure	PPT,					





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MODULE-5								
33		(Module5) Graph Databases:	PPT					
34		What Is a Graph Database?	PPT					
35		Features, Consistency, Transactions, Availability	PPT					
36		Query Features, Scaling,	PPT					
37		Suitable Use Cases: Connected Data, Routing, Dispatch,	PPT					
38		Location-Based Services	PPT					
39		Recommendation Engines,	PPT					
40		When Not to Use.	PPT					





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