



LESSON PLAN

Subject : DATA BASE MANAGEMENT SYSTEMS		
Year : III B-Tech	Semester : II	Branch : IT
Faculty : MD IMRAN	Reg : R16	Academic Year : 2020-21

COURSE OBJECTIVES :

- To learn the principles of systematically designing and using large scale Database Management Systems for various applications.

COURSE OUTCOMES :

NAME OF THE SUBJECT: Database Management Systems:C314 Year of Study:2018-2019

CO1	Able to Describe a relational database and object-oriented database.
CO2	Able to Create, maintain and manipulate a relational database using SQL
CO3	Able to Describe ER model and normalization for database design.
CO4	Able to Examine issues in data storage and query processing and can formulate appropriate solutions
CO5	Understand the role and issues in management of data such as efficiency, privacy, security, ethical responsibility, and strategic advantage
CO6	Design and build database system for a given real world problem

1	Factual	CO1: Able to Describe a relational database and object-oriented database.
2	Conceptual	CO2:Able to Create, maintain and manipulate a relational database using SQL CO3:Able to Describe ER model and normalization for database design.
3	Procedural	CO4:Able to Examine issues in data storage and query processing and can formulate appropriate solutions. CO5: Understand the role and issues in management of data such as efficiency, privacy, security, ethical responsibility, and strategic advantage
4	Applied	CO6: Design and build database system for a given real world problem

TEXT BOOKS:

1. Introduction to Database Systems, CJ Date, Pearson
2. Data base Management Systems, Raghurama Krishnan, Johannes Gehrke, TATA McGraw Hill 3rd Edition
3. Database Systems - The Complete Book, H G Molina, J D Ullman, J Widom Pearson

REFERENCES BOOKS:

1. Data base Systems design, Implementation, and Management, Peter Rob & Carlos Coronel 7th Edition.
2. Fundamentals of Database Systems, Elmasri Navrate Pearson Education
3. Introduction to Database Systems, C.J.Date Pearson Education

SOFTWARE LINKS:

1. DBMS: <https://dbms-database-management-txt-sql-mysql.soft112.com/>

MICRO LESSON PLAN

Pre-Class : Videos, E-books, Web links, Case Studies etc...

In-Class : Explanation on concept, discussion, Poll, doubts clarification, PPT, Demo etc..

Post-Class : Discussion Forum, Review on topic, Assessment, Quiz, Notes etc....

CLASS SL NO	CONCEPT	OBJECTIVES	PRE-CLASS	IN-CLASS	POST-CLASS
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1	An Overview of Database Management, Introduction-What is Database System	Introduction about database Management system	Text Book : Pdf (e-book) Upload Web Link : https://www.w3schools.com/sql/sql_intro.asp Video Link: https://www.youtube.com/watch?v=OWX4RvijwLw&t=12s	Discussion on pre-requisites (10 Min) PPT presentation (40 Min) - Microsoft Teams (online), Discussion / Poll activity (5 min) ,Summary (5min) , Doubts clarification (10 min)	Discussion Forum on the topic in the group/ Review on the topic, Share material(PPT, Notes pdf,Textbook pdf) on the topic. Presentation video available in microsoft teams student account
2	What is Database Why Database	To Understand the concept Database	Text Book : Pdf (e-book) Upload Web Link : https://www.w3schools.com/sql/sql_intro.asp Video Link: https://www.youtube.com/watch?v=ildHGYikLZs	Discussion on pre-requisites (10 Min) PPT presentation (40 Min) - Microsoft Teams (online), Discussion / Poll activity (5 min) ,Summary (5min) , Doubts clarification (10 min)	Discussion Forum on the topic in the group/ Review on the topic, Share material(PPT, Notes pdf,Textbook pdf) on the topic. Presentation video available in microsoft teams student account

3	Data Independence	To Understand the concept Data Independence	Text Book : Pdf (e-book) Upload Web Link : https://www.w3schools.com/sql/sql_intro.asp Video Link: https://www.youtube.com/watch?v=zGBIAOYX9Uk	Discussion on pre-requisites (10 Min) PPT presentation (40 Min) - Microsoft Teams (online), Discussion / Poll activity (5 min) ,Summary (5min) , Doubts clarification (10 min)	Discussion Forum on the topic in the group/ Review on the topic, Share material(PPT, Notes pdf,Textbook pdf) on the topic. Presentation video available in microsoft teams student account
4	Relation Systems and Others- Summary	To understand Relation System	Text Book : Pdf (e-book) Upload Web Link : https://www.w3schools.com/sql/sql_intro.asp Video Link: https://www.youtube.com/watch?v=bkFb1GZjBYA	Discussion on pre-requisites (10 Min) PPT presentation (40 Min) - Microsoft Teams (online), Discussion / Poll activity (5 min) ,Summary (5min) , Doubts clarification (10 min)	Discussion Forum on the topic in the group/ Review on the topic, Share material(PPT, Notes pdf,Textbook pdf) on the topic. Presentation video available in microsoft teams student account

5	Database system architecture, Introduction- The Three Levels of Architectur	To understand data base sytem architecture and three levels	Text Book : Pdf (e-book) Upload Web Link : https://www.w3schools.com/sql/sql_intro.asp Video Link: https://www.youtube.com/watch?v=-y4wUPv_NK8	Discussion on pre-requisites (10 Min) PPT presentation (40 Min) - Microsoft Teams (online), Discussion / Poll activity (5 min) ,Summary (5min) , Doubts clari-fication (10 min)	Discussion Forum on the topic in the group/ Review on the topic, Share material(PPT, Notes pdf,Textbook pdf) on the topic. Presentation video available in microsoft teams student account
6	The External Level- the Conceptual Level	To Understand concept of level	Text Book : Pdf (e-book) Upload Web Link : https://www.w3schools.com/sql/sql_intro.asp Video Link: https://www.youtube.com/watch?v=lQoze9ogAH4	Discussion on pre-requisites (10 Min) PPT presentation (40 Min) - Microsoft Teams (online), Discussion / Poll activity (5 min) ,Summary (5min) , Doubts clari-fication (10 min)	Discussion Forum on the topic in the group/ Review on the topic, Share material(PPT, Notes pdf,Textbook pdf) on the topic. Presentation video available in microsoft teams student account

7	the Internal Level-Mapping	To understand mapping	Text Book : Pdf (e-book) Upload Web Link : https://www.w3schools.com/sql/sql_intro.asp Video Link: https://www.youtube.com/watch?v=lQoze9ogAH4	Discussion on pre-requisites (10 Min) PPT presentation (40 Min) - Microsoft Teams (online), Discussion / Poll activity (5 min), Summary (5min), Doubts clarification (10 min)	Discussion Forum on the topic in the group/ Review on the topic, Share material(PPT, Notes pdf,Textbook pdf) on the topic. Presentation video available in microsoft teams student account
8	the Database Administrator	to understand Database Administrator	Text Book : Pdf (e-book) Upload Web Link : https://www.w3schools.com/sql/sql_intro.asp Video Link: https://www.youtube.com/watch?v=oNXAm1hS8C8	Discussion on pre-requisites (10 Min) PPT presentation (40 Min) - Microsoft Teams (online), Discussion / Poll activity (5 min), Summary (5min), Doubts clarification (10 min)	Discussion Forum on the topic in the group/ Review on the topic, Share material(PPT, Notes pdf,Textbook pdf) on the topic. Presentation video available in microsoft teams student account

9	The Database Management Systems-	To understand management systems	Text Book : Pdf (e-book) Upload Web Link : https://www.w3schools.com/sql/sql_intro.asp Video Link: https://www.youtube.com/watch?v=T7AxM7Vqva	Discussion on pre-requisites (10 Min) PPT presentation (40 Min) - Microsoft Teams (online), Discussion / Poll activity (5 min) ,Summary (5min) , Doubts clarification (10 min)	Discussion Forum on the topic in the group/ Review on the topic, Share material(PPT, Notes pdf,Textbook pdf) on the topic. Presentation video available in microsoft teams student account
10	Client/Server Architecture	To understand the concept of client server architecture	Text Book : Pdf (e-book) Upload Web Link : https://www.w3schools.com/sql/sql_intro.asp Video Link: https://www.youtube.com/watch?v=q0JBXtZ3ixY	Discussion on pre-requisites (10 Min) PPT presentation (40 Min) - Microsoft Teams (online), Discussion / Poll activity (5 min) ,Summary (5min) , Doubts clarification (10 min)	Discussion Forum on the topic in the group/ Review on the topic, Share material(PPT, Notes pdf,Textbook pdf) on the topic. Presentation video available in microsoft teams student account
	UNIT-II:				

1	The E/R Models, The Relational Model	Introduction to E/R model and relational model	Text Book : Pdf (e-book) Upload Web Link : https://www.w3schools.com/sql/sql_intro.asp Video Link: https://www.youtube.com/watch?v=W9Oo4CjHIXg	Discussion on pre-requisites (10 Min) PPT presentation (30 Min) Discussion or Poll activity (5 min) Summery (5min) Doubts clari-fication (10 min)	Discussion forum on the topic in the group Review on the topic Share material on the topic
2	Relational Calculus, Introduction to Database Design	To understand about relational calculus and database design	Text Book : Pdf (e-book) Upload Web Link : https://www.w3schools.com/sql/sql_intro.asp Video Link:	Discussion on pre-requisites (10 Min) PPT presentation (30 Min) Discussion or Poll activity (5 min) Summery (5min) Doubts clari-fication (10 min)	Discussion forum on the topic in the group Review on the topic Share material on the topic
3	Database Design and Er Diagrams-Entities Attributes	To understand the concept of Database Design and Er Diagrams-Entities Attributes	Text Book : Pdf (e-book) Upload Web Link : https://www.w3schools.com/sql/sql_intro.asp Video Link: https://www.youtube.com/watch?v=INspnCjmpCc	Discussion on pre-requisites (10 Min) PPT presentation (30 Min) Discussion or Poll activity (5 min) Summery (5min) Doubts clari-fication (10 min)	Discussion forum on the topic in the group Review on the topic Share material on the topic

4	Entity Sets-Relationship	To understand the concept of Entity Sets-Relationship	Text Book : Pdf (e-book) Upload Web Link : https://www.w3schools.com/sql/sql_intro.asp Video Link: https://www.youtube.com/watch?v=UIT5hs0mOHE	Discussion on pre-requisites (10 Min) PPT presentation (30 Min) Discussion or Poll activity (5 min) Summery (5min) Doubts clari-fication (10 min)	Discussion forum on the topic in the group Review on the topic Share material on the topic
5	Relationship Sets-Conceptual Design With the Er Models	To understand the concept of Relationship Sets-Conceptual Design With the Er Models	Text Book : Pdf (e-book) Upload Web Link : https://www.w3schools.com/sql/sql_intro.asp Video Link: https://www.youtube.com/watch?v=hRBFJnRedIM	Discussion on pre-requisites (10 Min) PPT presentation (30 Min) Discussion or Poll activity (5 min) Summery (5min) Doubts clari-fication (10 min)	Discussion forum on the topic in the group Review on the topic Share material on the topic
6	The Relational Model Integrity Constraints Over Relations	To understand the concept of The Relational Model Integrity Constraints Over Relations	Text Book : Pdf (e-book) Upload Web Link : https://www.w3schools.com/sql/sql_intro.asp Video Link: https://www.youtube.com/watch?v=hH4M5AIT1uU&t=12s	Discussion on pre-requisites (10 Min) PPT presentation (30 Min) Discussion or Poll activity (5 min) Summery (5min) Doubts clari-fication (10 min)	Discussion forum on the topic in the group Review on the topic Share material on the topic

7	Key Constraints –Foreign Key Constraints -General Constraints	To understand the concept of Key Constraints –Foreign Key Constraints -General Constraints	Text Book : Pdf (e-book) Upload Web Link : https://www.w3schools.com/sql/sql_intro.asp Video Link: https://www.youtube.com/watch?v=eTK9TLciRpU	Discussion on pre-requisites (10 Min) PPT presentation (30 Min) Discussion or Poll activity (5 min) Summery (5min) Doubts clari-fication (10 min)	Discussion forum on the topic in the group Review on the topic Share material on the topic
8	Relational Algebra and Calculus	To understand the concept of Relational Algebra and Calculus	Text Book : Pdf (e-book) Upload Web Link : https://www.w3schools.com/sql/sql_intro.asp Video Link: https://www.youtube.com/watch?v=WGAae0B-3gg	Discussion on pre-requisites (10 Min) PPT presentation (30 Min) Discussion or Poll activity (5 min) Summery (5min) Doubts clari-fication (10 min)	Discussion forum on the topic in the group Review on the topic Share material on the topic
9	Relational Algebra- Selection and Projection	To understand the concept of Relational Algebra- Selection and Projection	Text Book : Pdf (e-book) Upload Web Link : https://www.w3schools.com/sql/sql_intro.asp Video Link: https://www.youtube.com/watch?v=FOWQRPexb00	Discussion on pre-requisites (10 Min) PPT presentation (30 Min) Discussion or Poll activity (5 min) Summery (5min) Doubts clari-fication (10 min)	Discussion forum on the topic in the group Review on the topic Share material on the topic

10	Set Operation, Renaming	To understand the concept of Set Operation, Renaming	Text Book : Pdf (e-book) Upload Web Link : https://www.w3schools.com/sql/sql_intro.asp Video Link: https://www.youtube.com/watch?v=AiHBCgZnnpk	Discussion on pre-requisites (10 Min) PPT presentation (30 Min) Discussion or Poll activity (5 min) Summery (5min) Doubts clari-fication (10 min)	Discussion forum on the topic in the group Review on the topic Share material on the topic
11	Joins- Division- More Examples of Queries	To understand the concept of Joins- Division- More Examples of Queries	Text Book : Pdf (e-book) Upload Web Link : https://www.w3schools.com/sql/sql_intro.asp Video Link: https://www.youtube.com/watch?v=bLL5NbBEg2I	Discussion on pre-requisites (10 Min) PPT presentation (30 Min) Discussion or Poll activity (5 min) Summery (5min) Doubts clari-fication (10 min)	Discussion forum on the topic in the group Review on the topic Share material on the topic
12	Relational Calculus	To understand the concept of Relational Calculus	Text Book : Pdf (e-book) Upload Web Link : https://www.w3schools.com/sql/sql_intro.asp Video Link: https://www.youtube.com/watch?v=ekF4qQBsk18&list=PLx5CT0AzDJICw2DII7FYUcBn5MfvpZKY	Discussion on pre-requisites (10 Min) PPT presentation (30 Min) Discussion or Poll activity (5 min) Summery (5min) Doubts clari-fication (10 min)	Discussion forum on the topic in the group Review on the topic Share material on the topic

13	Tuple Relational Calculus - Domain Relational Calculus	To understand the concept of Tuple Relational Calculus - Domain Relational Calculus	Text Book : Pdf (e-book) Upload Web Link : https://www.w3schools.com/sql/sql_intro.asp Video Link: https://www.youtube.com/watch?v=xSMU_cEo_HM	Discussion on pre-requisites (10 Min) PPT presentation (30 Min) Discussion or Poll activity (5 min) Summery (5min) Doubts clari-fication (10 min)	Discussion forum on the topic in the group Review on the topic Share material on the topic
	UNIT-III:	UNIT-III:			
1	Queries, Constraints, Triggers	To Introduction about Queries, Constraints, Triggers	Text Book : Pdf (e-book) Upload Web Link : https://www.w3schools.com/sql/sql_intro.asp Video Link: https://www.youtube.com/watch?v=f6VWSInHGCE&t=474s	Discussion on pre-requisites (10 Min) PPT presentation (30 Min) Discussion or Poll activity (5 min) Summery (5min) Doubts clari-fication (10 min)	Discussion forum on the topic in the group Review on the topic Share material on the topic
2	The Form of Basic SQL Query	To understand the The Form of Basic SQL Query	Text Book : Pdf (e-book) Upload Web Link : https://www.w3schools.com/sql/sql_intro.asp Video Link: https://www.youtube.com/watch?v=kh3a--gzIPg	Discussion on pre-requisites (10 Min) PPT presentation (30 Min) Discussion or Poll activity (5 min) Summery (5min) Doubts clari-fication (10 min)	Discussion forum on the topic in the group Review on the topic Share material on the topic

3	Union, Intersect and Except	To understand the concept of Union, Intersect and Except	Text Book : Pdf (e-book) Upload Web Link : https://www.w3schools.com/sql/sql_intro.asp Video Link: https://www.youtube.com/watch?v=OXqVNueMPW0	Discussion on pre-requisites (10 Min) PPT presentation (30 Min) Discussion or Poll activity (5 min) Summery (5min) Doubts clari-fication (10 min)	Discussion forum on the topic in the group Review on the topic Share material on the topic
4	Nested Queries	To understand the concept of Nested Queries	Text Book : Pdf (e-book) Upload Web Link : https://www.w3schools.com/sql/sql_intro.asp Video Link: https://www.youtube.com/watch?v=JkXnuPBvL6g&t=533s	Discussion on pre-requisites (10 Min) PPT presentation (30 Min) Discussion or Poll activity (5 min) Summery (5min) Doubts clari-fication (10 min)	Discussion forum on the topic in the group Review on the topic Share material on the topic
5	Aggregate Operators	To understand the concept of Aggregate Operators	Text Book : Pdf (e-book) Upload Web Link : https://www.w3schools.com/sql/sql_intro.asp Video Link: https://www.youtube.com/watch?v=I95z0pSOUU0	Discussion on pre-requisites (10 Min) PPT presentation (30 Min) Discussion or Poll activity (5 min) Summery (5min) Doubts clari-fication (10 min)	Discussion forum on the topic in the group Review on the topic Share material on the topic

6	Null Values	To understand the concept of Null Values	Text Book : Pdf (e-book) Upload Web Link : https://www.w3schools.com/sql/sql_intro.asp Video Link: https://www.youtube.com/watch?v=Ulf4l3PDa88	Discussion on pre-requisites (10 Min) PPT presentation (30 Min) Discussion or Poll activity (5 min) Summery (5min) Doubts clari-fication (10 min)	Discussion forum on the topic in the group Review on the topic Share material on the topic
7	Complex Integrity Constraints in SQL	To understand the concept ofComplex Integrity Constraints in SQL	Text Book : Pdf (e-book) Upload Web Link : https://www.w3schools.com/sql/sql_intro.asp Video Link: https://www.youtube.com/watch?v=qOlhsLlc0IA	Discussion on pre-requisites (10 Min) PPT presentation (30 Min) Discussion or Poll activity (5 min) Summery (5min) Doubts clari-fication (10 min)	Discussion forum on the topic in the group Review on the topic Share material on the topic
8	Triggers and Active Database	To understand the concept ofTriggers and Active Database	Text Book : Pdf (e-book) Upload Web Link : https://www.w3schools.com/sql/sql_intro.asp Video Link: https://www.youtube.com/watch?v=f6VWSlnHGCE&t=474s	Discussion on pre-requisites (10 Min) PPT presentation (30 Min) Discussion or Poll activity (5 min) Summery (5min) Doubts clari-fication (10 min)	Discussion forum on the topic in the group Review on the topic Share material on the topic
	UNIT-IV:	UNIT-IV:			

1	Schema Refinement (Normalization) :	To understand the concept of Schema Refinement (Normalization) :	Text Book : Pdf (e-book) Upload Web Link : https://www.w3schools.com/sql/sql_intro.asp Video Link: https://www.youtube.com/watch?v=cetsEC76qAU	Discussion on pre-requisites (10 Min) PPT presentation (30 Min) Discussion or Poll activity (5 min) Summery (5min) Doubts clari-fication (10 min)	Discussion forum on the topic in the group Review on the topic Share material on the topic
2	Purpose of Normalization or schema refinement	To understand the concept of Purpose of Normalization or schema refinement	Text Book : Pdf (e-book) Upload Web Link : https://www.w3schools.com/sql/sql_intro.asp Video Link: https://www.youtube.com/watch?v=cetsEC76qAU	Discussion on pre-requisites (10 Min) PPT presentation (30 Min) Discussion or Poll activity (5 min) Summery (5min) Doubts clari-fication (10 min)	Discussion forum on the topic in the group Review on the topic Share material on the topic
3	concept of functional dependency	To understand the concept of functional dependency	Text Book : Pdf (e-book) Upload Web Link : https://www.w3schools.com/sql/sql_intro.asp Video Link: https://www.youtube.com/watch?v=dR-jJimWWHA	Discussion on pre-requisites (10 Min) PPT presentation (30 Min) Discussion or Poll activity (5 min) Summery (5min) Doubts clari-fication (10 min)	Discussion forum on the topic in the group Review on the topic Share material on the topic

4	normal forms based on functional dependency (1NF, 2NF and 3 NF)	To understand the concept of normal forms based on functional dependency (1NF, 2NF and 3 NF)	Text Book : Pdf (e-book) Upload Web Link : https://www.w3schools.com/sql/sql_intro.asp Video Link: https://www.youtube.com/watch?v=ABwD8IYByfk	Discussion on pre-requisites (10 Min) PPT presentation (30 Min) Discussion or Poll activity (5 min) Summery (5min) Doubts clari-fication (10 min)	Discussion forum on the topic in the group Review on the topic Share material on the topic
5	concept of surrogate key	To understand the concept of concept of surrogate key	Text Book : Pdf (e-book) Upload Web Link : https://www.w3schools.com/sql/sql_intro.asp Video Link: https://www.youtube.com/watch?v=GCA63syHvsk	Discussion on pre-requisites (10 Min) PPT presentation (30 Min) Discussion or Poll activity (5 min) Summery (5min) Doubts clari-fication (10 min)	Discussion forum on the topic in the group Review on the topic Share material on the topic
6	Boyce-codd normal form(BCNF),	To understand the concept of Boyce-codd normal form(BCNF),	Text Book : Pdf (e-book) Upload Web Link : https://www.w3schools.com/sql/sql_intro.asp Video Link: https://www.youtube.com/watch?v=FGesKHcqf2c	Discussion on pre-requisites (10 Min) PPT presentation (30 Min) Discussion or Poll activity (5 min) Summery (5min) Doubts clari-fication (10 min)	Discussion forum on the topic in the group Review on the topic Share material on the topic

7	Lossless join and dependency preserving decomposition	To understand the concept of Lossless join and dependency preserving decomposition	Text Book : Pdf (e-book) Upload Web Link : https://www.w3schools.com/sql/sql_intro.asp Video Link: https://www.youtube.com/watch?v=iAarosX8ees	Discussion on pre-requisites (10 Min) PPT presentation (30 Min) Discussion or Poll activity (5 min) Summery (5min) Doubts clari-fication (10 min)	Discussion forum on the topic in the group Review on the topic Share material on the topic
8	Fourth normal form(4NF).	To understand the concept of Fourth normal form(4NF).	Text Book : Pdf (e-book) Upload Web Link : https://www.w3schools.com/sql/sql_intro.asp Video Link: https://www.youtube.com/watch?v=OTCuykFHBeA	Discussion on pre-requisites (10 Min) PPT presentation (30 Min) Discussion or Poll activity (5 min) Summery (5min) Doubts clari-fication (10 min)	Discussion forum on the topic in the group Review on the topic Share material on the topic
	UNIT-V:	UNIT-V:			
1	Transaction Management and Concurrency Control:	To understand the concept of Transaction Management and Concurrency Control:	Text Book : Pdf (e-book) Upload Web Link : https://www.w3schools.com/sql/sql_intro.asp Video Link: https://www.youtube.com/watch?v=HAAhn--tZV8	Discussion on pre-requisites (10 Min) PPT presentation (30 Min) Discussion or Poll activity (5 min) Summery (5min) Doubts clari-fication (10 min)	Discussion forum on the topic in the group Review on the topic Share material on the topic

2	Transaction, properties of transactions	To understand the concept of Transaction, properties of transactions	Text Book : Pdf (e-book) Upload Web Link : https://www.w3schools.com/sql/sql_intro.asp Video Link: https://www.youtube.com/watch?v=fFY8cIEEFa8	Discussion on pre-requisites (10 Min) PPT presentation (30 Min) Discussion or Poll activity (5 min) Summery (5min) Doubts clari-fication (10 min)	Discussion forum on the topic in the group Review on the topic Share material on the topic
3	transaction log, and transaction management with SQL using commit rollback and savepoint	To understand the concept of transaction log, and transaction management with SQL using commit rollback and savepoint	Text Book : Pdf (e-book) Upload Web Link : https://www.w3schools.com/sql/sql_intro.asp Video Link: https://www.youtube.com/watch?v=4Lu9UiRWumo	Discussion on pre-requisites (10 Min) PPT presentation (30 Min) Discussion or Poll activity (5 min) Summery (5min) Doubts clari-fication (10 min)	Discussion forum on the topic in the group Review on the topic Share material on the topic
4	Concurrency control for lost updates	To understand the concept of Concurrency control for lost updates	Text Book : Pdf (e-book) Upload Web Link : https://www.w3schools.com/sql/sql_intro.asp Video Link: https://www.youtube.com/watch?v=JU4IM5f74-4	Discussion on pre-requisites (10 Min) PPT presentation (30 Min) Discussion or Poll activity (5 min) Summery (5min) Doubts clari-fication (10 min)	Discussion forum on the topic in the group Review on the topic Share material on the topic

5	uncommitted data, inconsistent retrievals and the Scheduler	To understand the concept of uncommitted data, inconsistent retrievals and the Scheduler	Text Book : Pdf (e-book) Upload Web Link : https://www.w3schools.com/sql/sql_intro.asp Video Link: https://www.youtube.com/watch?v=d4Ziyuri0LO	Discussion on pre-requisites (10 Min) PPT presentation (30 Min) Discussion or Poll activity (5 min) Summery (5min) Doubts clari-fication (10 min)	Discussion forum on the topic in the group Review on the topic Share material on the topic
6	Concurrency control with locking methods : lock granularity, lock types, two phase locking for ensuring serializability	To understand the concept of Concurrency control with locking methods : lock granularity, lock types, two phase locking for ensuring serializability	Text Book : Pdf (e-book) Upload Web Link : https://www.w3schools.com/sql/sql_intro.asp Video Link: https://www.youtube.com/watch?v=ELP5JKZzjLA	Discussion on pre-requisites (10 Min) PPT presentation (30 Min) Discussion or Poll activity (5 min) Summery (5min) Doubts clari-fication (10 min)	Discussion forum on the topic in the group Review on the topic Share material on the topic
7	deadlocks, Concurrency control with time stamp ordering	To understand the concept of deadlocks, Concurrency control with time stamp ordering	Text Book : Pdf (e-book) Upload Web Link : https://www.w3schools.com/sql/sql_intro.asp Video Link: https://www.youtube.com/watch?v=loe4ERAI_3o	Discussion on pre-requisites (10 Min) PPT presentation (30 Min) Discussion or Poll activity (5 min) Summery (5min) Doubts clari-fication (10 min)	Discussion forum on the topic in the group Review on the topic Share material on the topic

8	Wait/Die and Wound/Wait Schemes	To understand the concept of Wait/Die and Wound/Wait Schemes	Text Book : Pdf (e-book) Upload Web Link : https://www.w3schools.com/sql/sql_intro.asp Video Link: https://www.youtube.com/watch?v=KI5xkSI8aGI	Discussion on pre-requisites (10 Min) PPT presentation (30 Min) Discussion or Poll activity (5 min) Summery (5min) Doubts clari-fication (10 min)	Discussion forum on the topic in the group Review on the topic Share material on the topic
9	Database Recovery management : Transaction recovery.	To understand the concept of Database Recovery management : Transaction recovery.	Text Book : Pdf (e-book) Upload Web Link : https://www.w3schools.com/sql/sql_intro.asp Video Link: https://www.youtube.com/watch?v=v5qKiXa36o4	Discussion on pre-requisites (10 Min) PPT presentation (30 Min) Discussion or Poll activity (5 min) Summery (5min) Doubts clari-fication (10 min)	Discussion forum on the topic in the group Review on the topic Share material on the topic
	UNIT-VI:	UNIT-VI:			
1	Overview of Storages and Indexing	To understand the concept of Overview of Storages and Indexing	Text Book : Pdf (e-book) Upload Web Link : https://www.w3schools.com/sql/sql_intro.asp Video Link: https://www.youtube.com/watch?v=wZcV5fT0vj8	Discussion on pre-requisites (10 Min) PPT presentation (30 Min) Discussion or Poll activity (5 min) Summery (5min) Doubts clari-fication (10 min)	Discussion forum on the topic in the group Review on the topic Share material on the topic

2	Data on External Storage	To understand the concept of Data on External Storage	Text Book : Pdf (e-book) Upload Web Link : https://www.w3schools.com/sql/sql_intro.asp Video Link: https://www.youtube.com/watch?v=bITkMaz3SYM	Discussion on pre-requisites (10 Min) PPT presentation (30 Min) Discussion or Poll activity (5 min) Summery (5min) Doubts clari-fication (10 min)	Discussion forum on the topic in the group Review on the topic Share material on the topic
3	File Organization and Indexing	To understand the concept of File Organization and Indexing	Text Book : Pdf (e-book) Upload Web Link : https://www.w3schools.com/sql/sql_intro.asp Video Link: https://www.youtube.com/watch?v=9kU1SPORaol&t=16s	Discussion on pre-requisites (10 Min) PPT presentation (30 Min) Discussion or Poll activity (5 min) Summery (5min) Doubts clari-fication (10 min)	Discussion forum on the topic in the group Review on the topic Share material on the topic
4	Clustered Indexing	To understand the concept of Clustered Indexing	Text Book : Pdf (e-book) Upload Web Link : https://www.w3schools.com/sql/sql_intro.asp Video Link: https://www.youtube.com/watch?v=9kU1SPORaol	Discussion on pre-requisites (10 Min) PPT presentation (30 Min) Discussion or Poll activity (5 min) Summery (5min) Doubts clari-fication (10 min)	Discussion forum on the topic in the group Review on the topic Share material on the topic

5	Primary and Secondary Indexes	To understand the concept of Primary and Secondary Indexes	Text Book : Pdf (e-book) Upload Web Link : https://www.w3schools.com/sql/sql_intro.asp Video Link: https://www.youtube.com/watch?v=u5iHc46KOyo	Discussion on pre-requisites (10 Min) PPT presentation (30 Min) Discussion or Poll activity (5 min) Summery (5min) Doubts clari-fication (10 min)	Discussion forum on the topic in the group Review on the topic Share material on the topic
6	Index Data Structures	To understand the concept of Index Data Structures	Text Book : Pdf (e-book) Upload Web Link : https://www.w3schools.com/sql/sql_intro.asp Video Link: https://www.youtube.com/watch?v=lyTPtoBfs9I	Discussion on pre-requisites (10 Min) PPT presentation (30 Min) Discussion or Poll activity (5 min) Summery (5min) Doubts clari-fication (10 min)	Discussion forum on the topic in the group Review on the topic Share material on the topic
7	Hash-Based Indexing	To understand the concept of Hash-Based Indexing	Text Book : Pdf (e-book) Upload Web Link : https://www.w3schools.com/sql/sql_intro.asp Video Link: https://www.youtube.com/watch?v=qiDNQqSMFOQ	Discussion on pre-requisites (10 Min) PPT presentation (30 Min) Discussion or Poll activity (5 min) Summery (5min) Doubts clari-fication (10 min)	Discussion forum on the topic in the group Review on the topic Share material on the topic

8	Tree-Based Indexing,	To understand the concept of Tree-Based Indexing,	Text Book : Pdf (e-book) Upload Web Link : https://www.w3schools.com/sql/sql_intro.asp Video Link: https://www.youtube.com/results?search_query=Tree-Based+Indexing%2C+	Discussion on pre-requisites (10 Min) PPT presentation (30 Min) Discussion or Poll activity (5 min) Summery (5min) Doubts clari-fication (10 min)	Discussion forum on the topic in the group Review on the topic Share material on the topic
9	Comparison of File Organization	To understand the concept of Comparison of File Organization	Text Book : Pdf (e-book) Upload Web Link : https://www.w3schools.com/sql/sql_intro.asp Video Link: https://www.youtube.com/watch?v=S_P2yyQuB8M	Discussion on pre-requisites (10 Min) PPT presentation (30 Min) Discussion or Poll activity (5 min) Summery (5min) Doubts clari-fication (10 min)	Discussion forum on the topic in the group Review on the topic Share material on the topic