

Panipat Institute of Engineering & Technology

Department of CSE-AI&DS

LESSON PLAN

Subject: Next Generation Databases

Subject code: PE-CS-AIDS- 426A

Session: Jan.-June 2023-24

Semester: 8th

S.No	Topic	CO Covered	Assignment No.	Teaching Methodology
1	Unit-I: Introduction: NGD	CO1	Assignment-1	PPT
2	Introduction: NGD	CO1		PPT
3	Three Database Revolutions	CO1		PPT
4	Three Database Revolutions	CO1		PPT/Video
5	The Third Database Revolution, Google	CO1		PPT
6	The Third Database Revolution, Google	CO1		PPT
7	The Third Database Revolution, Google	CO1		PPT
8	Big Data, and Hadoop	CO1		PPT
9	Big Data, and Hadoop	CO1		PPT/Video
10	Big Data, and Hadoop	CO1		PPT/Chalkboard
11	Unit-II: Sharding, Amazon, and the Birth of NoSQL	CO2	Assignment-2	PPT
12	Document Databases	CO2		PPT
13	JSON Document Databases	CO2		PPT/ Chalkboard
14	Tables are Not Your Friends: Graph Databases	CO2		PPT/Video
15	Tables are Not Your Friends: Graph Databases,	CO2		PPT/Video
16	Column Databases	CO2		PPT
17	Column Databases	CO2		PPT
18	Column Database Architectures	CO2		PPT/ Chalkboard
19	Column Database Architectures	CO2		PPT
20	Column Database Architectures	CO2		PPT/Video
21	Unit-III: XML, XML Databases – XML	CO3	Assignment-3	PPT
22	Tools and Standards	CO3		PPT/Video
23	XML Databases, XML	CO3		PPT
24	Support in relational systems	CO3		PPT/ Chalkboard
25	JSON Document Databases	CO3		PPT/Video
26	JSON Document Databases	CO3		PPT
27	MongoDB, Column Databases	CO3		PPT
28	MongoDB, Column Databases	CO3		PPT/ Chalkboard
29	Graph Databases	CO3		PPT
30	Graph Databases	CO3		PPT
31	Unit-IV: Distributed Database Patterns	CO4	Assignment-4	PPT/ Chalkboard
32	Nonrelational	CO4		PPT/Video
33	Distributed Databases	CO4		PPT

34	MongoDB Sharding and Replication	CO4		PPT
35	HBase. Consistency Models	CO4		PPT/ Chalkboard
36	HBase. Consistency Models	CO4		PPT
37	Consistency in MongoDB	CO4		PPT
38	Data Models and Storage	CO4		PPT/ Chalkboard
39	NoSQL APIs	CO4		PPT
40	Languages and Programming Interfaces	CO4		PPT/ Chalkboard
41	Course Overview	Discussion with Students.		