This is session 7 by date 13/09/2022

Database and Management System

Sql is the syntax and query language used MySql is the program used for this syntax.

Types of data :

- Binary
- Text
- Files
- Raw
- Audio
- Video
- And more else

Ways of storing data :

- Store Files by the path of the data
- Store as arrays in rows and columns or tables
- Json Object
- XML
- Nodes

Types of Databases :

- Structured -> it has a shape and static way of storing like tables
- Un-structured ->

Most important databases in AI :

- SQL
- Mongo DB
- Django

Data science role in database:

- Determine Data schema
- Determine data storage type structured or unstructured
- Determine way of accepted data whether on cloud or locally
- Determine the language used if python or mongo

Cloud vs Server :

- Cloud has unlimited storage , server storage is limited
- Cloud doesn't need maintenance or network engineer
- Cloud only paid for your usage after your free limit
- Server is better for small budget companies
- Both are secured and both can be hacked

Big Data :

The 5 V's

1. Volume
2. Velocity
3. Variety
4. Value
5. Veracity

Software Engineering

SDLC : Software Development Life Cycle

0. Requirements
1. Planning
2. Analysis
3. Design
4. Implementation and testing
5. Maintenance

Tasks :

1. Diamond and Delegation Inheritance
2. Modified Harvard architecture
3. What are the types of platforms and example for each one.
4. What is virtual memory and when we use it
5. All types of structured and unstructured database
6. What is hadoop , hive , apache spark , apache base , map reduce
7. Comparison between Google Cloud Platform , AWS , Microsoft Azure , Cloudera
8. Is there replacable for them ? What are them
9. What are the 11 V's for Big Data
10. What is sql injection
11. Relational and Un-relational data base
12. What is DevOps and what are the DevOps tools
13. Difference between white box and black box testing

14. Difference between verification and validation testing
15. What is V model in software engineering