1, Data without any context is referred to as raw data.When we provide context behind the data, that data is then turned into information, which can then be used to make informed decisions.

2. Meta data is when you have data that describes the data. For example if i say 22, what does that mean, but if i say 22 degrees celcius, it tells me it's temperature, so the metadata helps in describing the data, and gives it richness and context. Units, time periods that label data.

3. A Database Management System (DBMS) is a set of programs that helps you manage how a database is built and how people can use it.

It acts like a middleman between the user and the database. When a user or an application asks for data, the DBMS takes that request, does all the complicated work in the background, and then gives back the right information.

4. Operational DB = fast and accurate for **daily transactions**. A **banking system database** that records deposits, withdrawals, and transfers in real time.

Analytical DB = powerful and structured for **big-picture insights**. **Example:** A **data warehouse** that stores years of sales data so managers can analyze trends and make forecasts.

5. NOSQL handles, both non-structured data and semi-structured data. Data types, could be key values, like dictionaries we worked with in level 1. Advantages is that it works very well with large data volumes, terabytes. Use cases, social media sites, banking where fraud detection needs to happen quickly. NoSQL databases are best for big, fast-changing, or unstructured data where flexibility and scalability matter most.

6. SQL lite is a serverless database, and because of this it is good for mobile applications.

7. In a DBMS (Database Management System), the ACID properties are rules that guarantee transactions are processed safely and correctly. ACID ensures database transactions are complete, accurate, independent, and permanent, which is critical for reliability in a DBMS.