-----day2

1)DDL Vs DML

DDL (Data Definition Language) create, define and modify the database structure and schema including tables, indexes, constraints, and other objects. Examples of DDL commands in MySQL include CREATE, ALTER, and DROP.

DML (Data Manipulation Language) manipulate the data within the database, including inserting, updating, deleting, and selecting data from tables. include INSERT, UPDATE, DELETE, and SELECT.

2)Primary Key

column or combination of columns in a table that uniquely identifies each row in the table. A primary key is used to enforce data integrity, ensure that each row is unique, and provide a fast and efficient way to access data.

3)How to set Primary key with SQL command

Alter table stu add primary key(id);

4)Aggregate functions in MySQL

perform a calculation on multiple data and return a single value. That's why they are called "aggregate" functions. Those aggregate functions are AVG(), COUNT(), SUM(), MIN(), and MAX().

5)Where clause

extract only those records that fulfill a specified condition.

6)having Clause

added to SQL because the WHERE keyword cannot be used with aggregate functions.
WHERE condition GROUP BY column_name(s) HAVING condition
ORDER BY column_name(s);

7) operators in MySQL

perform various operations on values and expressions in SQL statements. There are several types of operators in MySQL, including arithmetic operators:+-*/%, comparison operators: $=, !=, <, >, >=, <=, logical operators: and or not, and bitwise operators:<math>|^{\&}$

8)Normalization in SQL or Database

Database normalization is a database schema design technique, by which an existing schema is modified to minimize redundancy and dependency of data.

1NF	contains an atomic value.
2NF	in 1NF and all non-key attributes are fully functional dependent on the primary key.
3NF	in 2NF and no transition dependency exists.

9)What is CRUD Operation

four fundamental operators of persistent database applications: **Create, Read, Update and Delete.**

10)What is Forein Key.

The FOREIGN KEY constraint is used to prevent actions that would destroy links between tables.

A FOREIGN KEY is a field (or collection of fields) in one table, that refers to the $\frac{PRIMARY}{KEY}$ in another table.

11)What is Maven?

Used for Java-based projects, **helping to download dependencies**, which refers to the libraries or JAR files. The tool helps get the right JAR files for each project as there may be different versions of separate packages.

12)Pom .xml

Project Object Model, and it is the core of a project's configuration in Maven. It is a single configuration XML file called pom. xml that contains the majority of the information required to build a project

13)Dependencies

Dependencies are **third-party software required by the project**. Some common examples are JUnit and JDBC.

14)Jar Files

is a file format that combines many files into one. The Java environment differs from other programming environments in that the Java compiler does not generate machine code for a hardware-specific instruction set.