

Day 5 : 17 Oct 2024 CB FSD - Planning and UI Design

E-Shopping App Project

Epics

1. Type of User Account Management
2. Product catalog
3. Order management
4. Shopping Cart
5. Payment integration

Now we will create User

### **Types of Issue**

1. Task : A general work item that need to be completed.
2. Story : a user – centric features or requirement of an application.
3. Bugs : An issue representing a defects or error in an application.

By default type of issue consider as task.

DevOps : Development and Operator Team

Git, Agile : part of Devops team

Program : set of instruction to perform a specific task.

Input                    a=10,b=20 or keyboard or read from file or database

Process        sum = a+b;        on those data apply business logic

Output            display sum;        console or store in file or generate report or database.

We can store the data in file system or database system using programming language like java, c, c++ or python etc.

Limitation of File base system

1. **Data redundancy** : we can store duplicate records.
2. **Data inconsistency** : type of files.  
Doc, pdf, excel etc
3. To **do CRUD Operation** Create or Insert, Read, Update and Delete more complex etc.
4. Security : we can apply for file read mode or read/write mode.

**Database :**

Data            : raw fact.

Information : meaning full data or processed data.

Database : storing data and information in a table format or any other format like json(**JavaScript Object Notation**), column family or key-value pairs, graph format etc.

**DBMS** : Database Management System : it is a software which help us to store the data in table format using column and row.

Ms Excel sheet is a type of DMBS software.

## **RDBMS** : Relational Database Management System:

### Database Model

Relational Model : it is a type of model, using this we can connect more than one table logically with help of PK(primary key) and FK(Foreign Key).

**Primary key**: That column doesn't allow duplicate value as well as null(means we can't leave blank). In single table we can create only one column as PK.

**Foreign Key** : Foreign Key is use to connect primary key of same table or different table. If column is FK that column allow only those value which present in PK. Foreign key can allow null value. In single table we can create more than one column as FK.

### Trainer

TID(PK)	TName	Tech	
1	Raj	Java	
2	Ajay	Python	
1	Steven	Angular	Error
3	Raju	null	

### Student

SID(PK)	SName	Age	TSID(FK)	connect PK trainer
100	Leena	21	1	
101	Meena	22	1	
103	Veena	23	2	
104	Leena	26	5	error
105	Neena	26	null	

Using **Join query** we can retrieve the records from both table with help of PK and FK

## RDBMS

1. MySQL
2. Oracle
3. Db2
4. Postgres
5. SQL Server

Etc

MySQL : MySQL is a type of RDBMS database. It is an open source. It was part of **sun micro system** but now part of Oracle.

**Java and MySQL** part of Oracle organization.

To interact with Any RDBMS database we can use English like statement language ie SQL.

## Structured Query Language

This SQL mainly divided into 5 types of

1. DRL or DQL : Data Query or Retrieval language
  - a. **Select** clause or query part of DRL , it is use to retrieve the records with different conditions.
2. DDL: Data Definition language
  - a. Create, drop, rename, truncate etc. creating a structure for the table.
3. DML : Data Manipulation language
  - a. Insert, Delete and Update query. Data related operation
4. TCL : Transactional control language
  - a. Commit, rollback and save point etc.
5. DCL : Data control language
  - a. Grant and revoke

Connecting mysql DB in VM.

Open the terminal

username is **root**

password is **Simplilearn**

```
sudo mysql -u root -p
```

provide the password as **Simplilearn**

We can connect mysql database using

1. Using command prompt or terminal
2. Using GUI ie workbench

8.x version download if you want to do in

### Mysql command

**show databases;**                      this command is use to display all databases present in your account.

**use databasename;**                      this command is use to move inside a database.

**show tables;**                      this command is use to display all table present in current database

**desc tableName;**                      this command is use to provide table structure.