will wait till 7:05

Agenda

1. What is LLD ? (introduction)
2. why is LLD important ?
   - day to day job
   - interviews
3. Structure of LLD module?
4. Expectation setting for the LLD classe.

What is LLD?

L — Low
L — level   vs
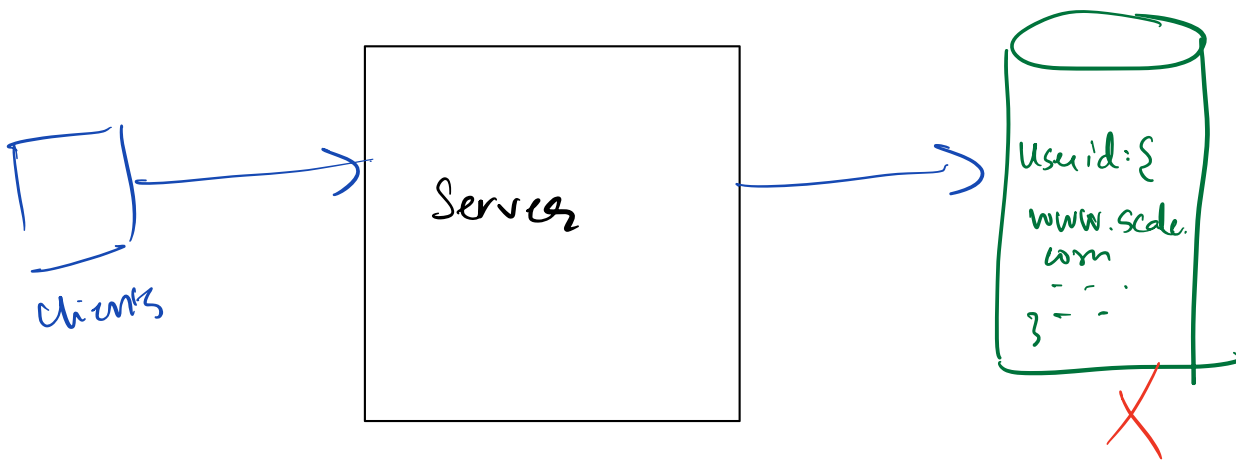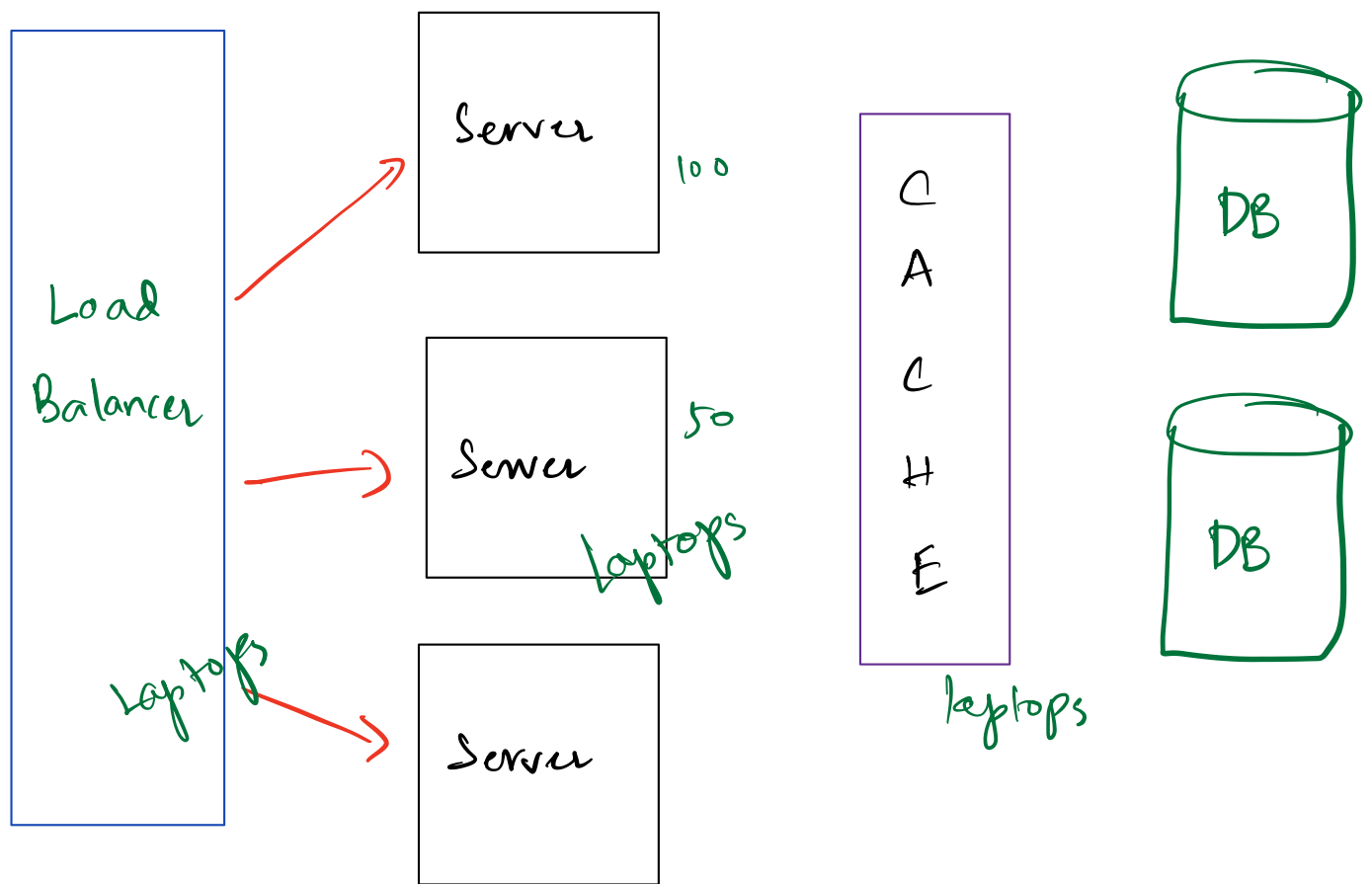D — (Design) ?

        ↓
blueprint

High
Level
Design

High level Design :

Bird's eye view design

Clients → Server → Userid: {
www.scde.com

}

What are the problems?

1. Wait time too long for user.
2. Single point of failure

Load Balancer

Server 100

Server 50

Server

Laptops

Laptops

C
A
C
H
E

Laptops

DB

DB

High level design : Design of different infra layers which makes up your s/w system.

Laptop → DB (SQL, Mongo) → Programs
        → Cache (Redis) → Programs

LLD → Design of these programs/code.

8:20

Why is LLD important?

- day to day job

how much code do you do? — 9-10 hrs

(~12%) — (5, 10, 20, 50) LPA

Thing SWE does		Why we do?
① Meetings	—	Requirement Gathering.
② Planning/Design	—	Smooth Execution
③ Code Review	—	Readable, Quality, Efficiency
④ Testing	—	Correctness, Efficiency
⑤ Debug	—	Fix bugs.
⑥ Documentation	—	Readability, Understandability,

LLD helps us make our code more:

① Readable

② Reusable

③ understandable

④ maintainable

⑤ extensable

Maintainability

Ability to maintain or make changes in already existing code.

1) Bug fixing.
2) Performance optimisation
3) Dependency updat

Extensibility

Ability to add new features.

Interviews :

Startups — SDE 1/2/3 → LLD rounds

CRED, Sharechat, Flipkart, Unacad

Machine coding

Tech MNCS — Oracle, Adobe
Microsoft, Wallmart, Visa

LLD rounds $\geq$ SDE2

Huge Tech MNCs : FB, Google

OOPs design

Structure of LLD Module:

LLD 1

- OOPs - 4 classes
- Multithreading & concurrency - 4
- Adv lang Concepts

Java {
 — Streams
 — lambda's
 — Collection
 — Generics .
}

LLD 2

How to do good desing !

SOLID Principles ②

Desing Patterns ⑩
⑤ Creational, Structural ③,
② Behavioural

UML Diagrams

LLD 3

Interview specific prep .

Desing a Pen

TictacToe (Game)

BMS (Order mngm Systems)

Splitwise .
(financial)

LLD 4 → Project → Ecommerce

① <u>12 classes of Regularity</u>

②