

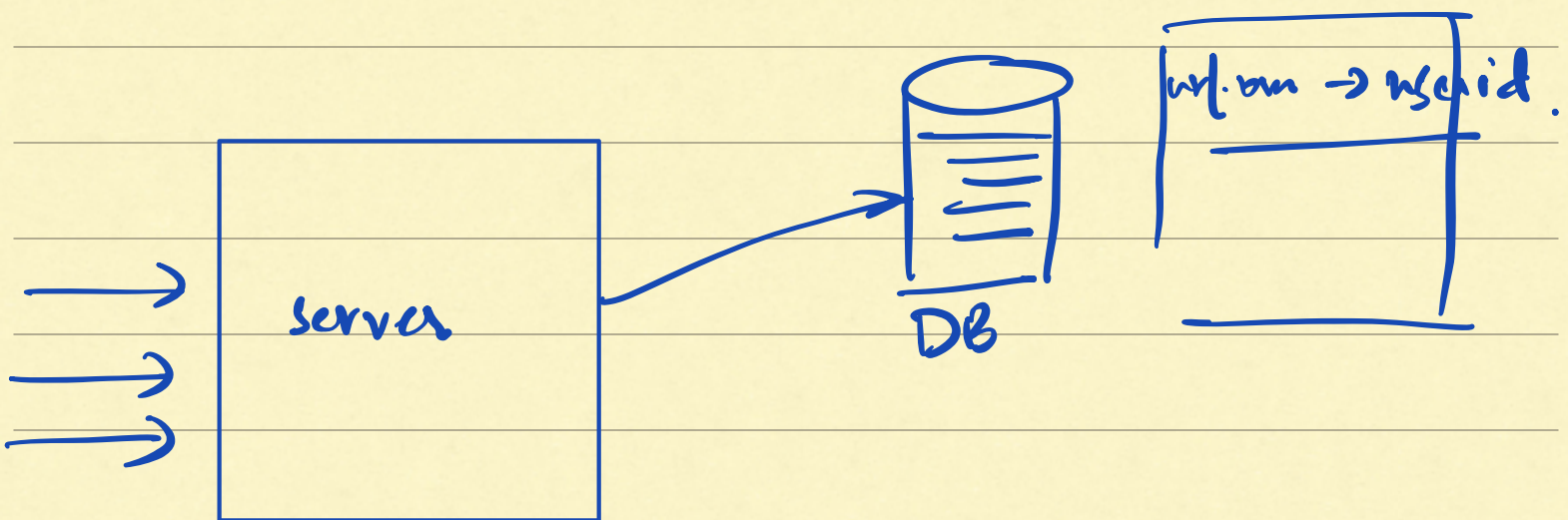
Agenda :

- Introduction to LLD
- Why LLD is important
 - ↳ interviews
 - ↳ Day to Day Jobs
- What is the structure of module.

What is LLD?

Low level Design vs High level Design

Bookmark Service

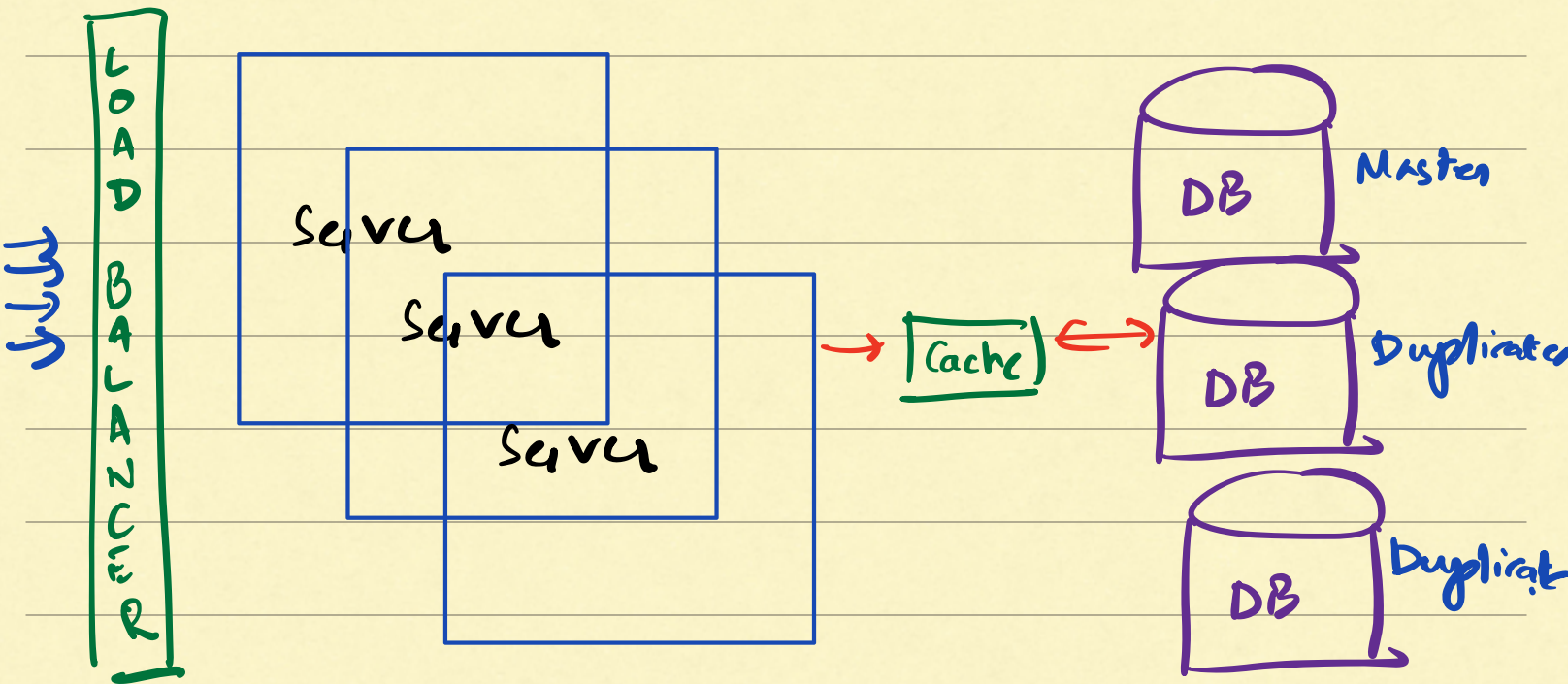


10 reqs / 1000 reqs / 10,000 reqs

Why would a single server fail?

- Huge waiting
- Single point of failure

Bad User Experience.



DB queries take more time.

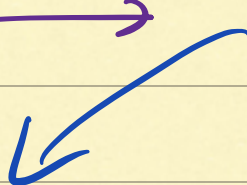
DB, Servers, LBs, Caches



Systems



Softwares running on them.



LID → Softwares

→ Designing of these softwares

implementation design of the code.

Why is LLD important?

Day to Day Jobs

↳ 12 % spent in coding in Day

Where do engineers spend time?

- Requirement gathering (Plan)
- Meetings
- Debugging (Reading the code)
- Design & Documentation (Reading code)
- code Review (Readability)
- Testing (Readability, Errors detection)
- Learning / chai Sutta / T T (5%)

LLD helps us write code :

1. Understandable ✓
2. Readable ✓
3. Modular ✓ + Reusable ✓

4. Extensible → Easy to extend the code ↓

5. Maintainable.



• Writing a new feature

Easy to maintain

- Debugging
- Performance Optimisation
- Library upgrader.

Interviews:

| | Startups Cred, ShareChat, Zerodha, Unacademy Scaler | MNCs Oracle, Adobe, PayPal, Visa | Large MNCs FAANG |
|---------------------|--|--|----------------------------------|
| SDE 1 | Machine Coding | NONE | OOPs, Design Patterns, SOLIDS |
| SDE 2 | " | LLD Round with case studies. | " |
| SDE 3 and above. | " | " | " |

Structure of the LLD module?

LLD 1

OOPs - 4

Concurrency - 4
& Multithreading

Advance language
concepts

Java - Streams
Generics

• Lambda's
Collection

LLD 2

SOLIDS (2)

Design Patterns

Creational (2) SDP

Structural (1) SDP

Behavioural (1) SDP

UML Diagrams (1)

LLD - 3

Case Studies.

→ Game

Tic Tac Toe

→ FinTech

Splitwise

→ Concurrency

BookMyShow

Parking Lot.

↳

LLD - 4

Project (E-commerce Website)

Deploy

APIs

Authentication

Logging

DB setup

Security

Dockerisation

Why is Java used for this module?

- 70:30 split between Java & Python
Job opportunities → Software Devs.
- Java is easier to understand

Assignments :

44 people → 44 people

80% - 90% → Attendance.

↳ Gear out mocks, up on boards
in contest,

Sets places early.

SQL →

Mock