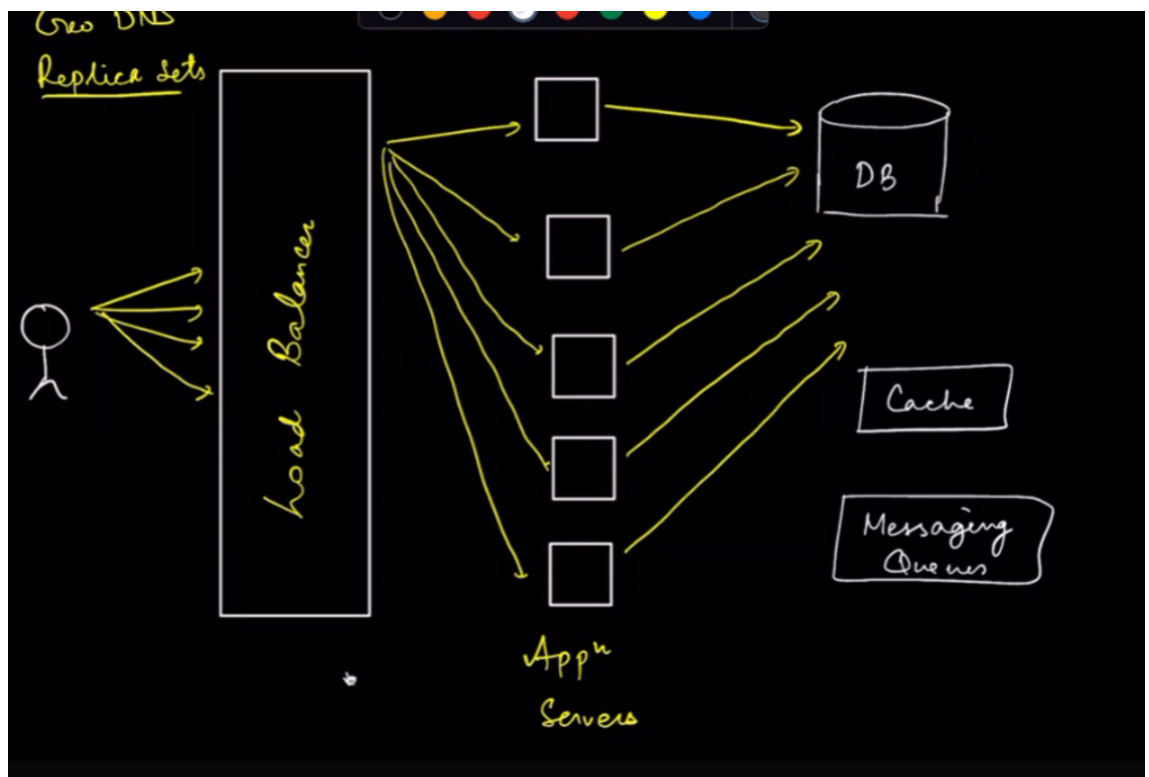# 1. LLD Overview

Agenda :
1. Intro To LLD
2. Why LLD is important
3. Structure of LLD Module

1. What is LLD ?

At First what HLD (High Level Design) is :
- a overview of different infra layers that work together to serve an application at scale at desired efficiency.
- Each component is nothing but a computer which acts as per what program running in that computer. All load balancers cache servers, are the component.

The overall detail of what code is running in the machine is LLD. (LLD is the design and detail of the code for those machines).
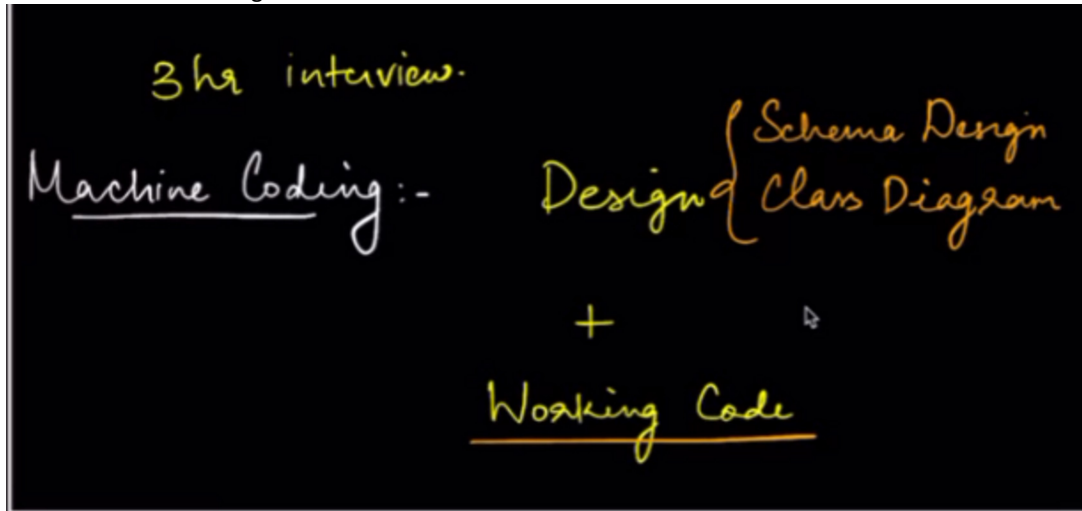
2. Why LLD is important ?

- Design And understand the code
- Documentation and design
- Testing
- Debugging
- Code reviews.

  LLD is used to write code that is :
  - Understandable
  - Reusable
  - Extensible (New Requirements)
  - Maintainable (bugs / dependency, platform updates / Performance Optimization)
  - and Modular code .

What is Machine Coding ?

LLD contains only Design.

3. Structure of the LLD Module

LLD1
- OOP
- Concurrency / Multithreading
- Advance Language Concepts (Java / C++) (Features of language)

LLD2
- SOLID Principles
- Design Patterns
- UML Diagrams

LLD3
- Machine Coding
- Pen, Parking lot, Book My Show, Parking Lot, Split wise

Final Project (Ecommerce)