

Introduction to System Design

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Negr -

what is LLD -

Low level design.

searching.

Application

DSA sorting

Isolated problems

searching

Miscible DSA

↓

problem

array is 9

Concpts Merge together & Build an exiting Application is called LLD, J

finally

Having

Quick Ride

DSA

two friends

DSA ✓

Ride booking platform.

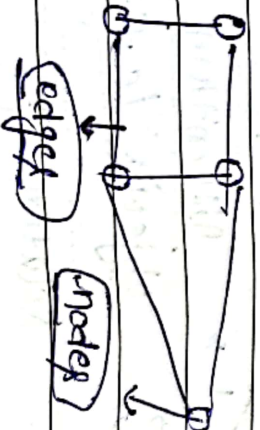
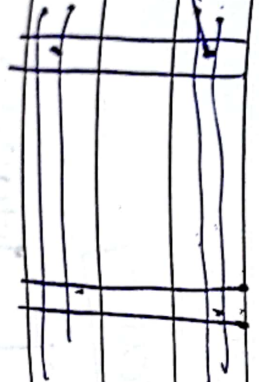
Think Always with

DSA perspective

Always thinks

with, Design firstly &

Data flow.



city

POORNIMA

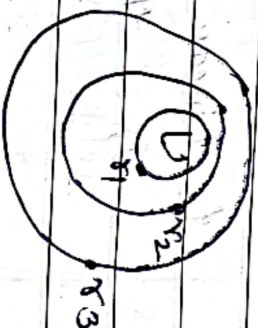
A complex graph will be very created

Shortest distance

Source → Destination

Dijkstra's Algorithm ✓ Solved

* problem 2 → to create Ride Booking platform;
Assign a Rider.



Queue
[r1 | r2 | r3 | r4]

* Priority Queue takes MinHeap or MaxHeap

Smallest

← 0

MaxHeap

0 → biggest / largest

Queue
[r1 | r2 | r3 | r4]

Pop the riders from Queue

Manager

Algorithm

objects/entities
Relationship
Interaction

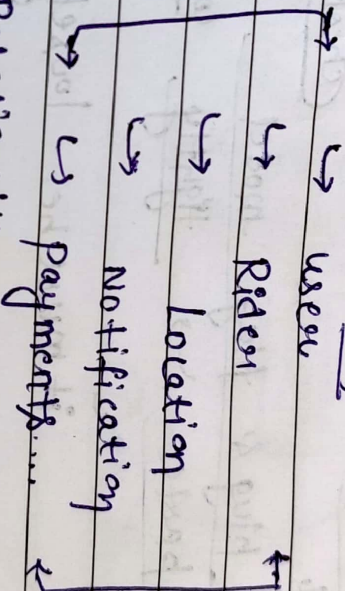
- ↳ Data security
 - ↳ Notification
 - ↳ Payment gateways
- * ↳ Scalability - How millions of users, would be interact at the same time on an application.

Heavy →

Structure ✓

will create a raw structure

objects/entities



Relationship

Data security

Sensitive data

Millions of users - Scalability

Architecture



DSA - Algorithms - codes

ULD

Scalability

Maintainability

Reusability

Scalability - [How it is impacting millions of users.]

Maintainability → By integrate new feature

there shouldn't be impact on old feature
Ex- they gives bugs.

✓/codes - maintainable

Re-usability → Debugging

↓
copy & paste → plug & play model
→ tightly coupled X

it must be loosely coupled...

} "Rider - mapping Algorithm"

→ Blinkit delivery, Amazon, Zomato delivery.

Re-usable → locations mapped with a particular delivery agents

what is NOT LLD?

[HLD] - High level Design

↳ [Tech stack] (Springboot/JAVA)
↳ DB's (SQL, MongoDB)

POORNIMA

Server
↳ Scale
↳ cost optimization

Architectural design

(Database can be Hybrid model also...)

sql + nosql

(mongo)

