HIGH LEVEL DESIGN

High Level Design: Topics to be covered

✅ Learn About Network Protocols - TCP, Websocket, HTTP etc.

✅ Client-Server Vs Peer 2 Peer Architecture

✅ C.A.P Theorem

✅ Microservices Imp. Design Patterns
-Decomposition Pattern
- SAGA Pattern
-Strangler Pattern
- CQRS

✅ Scale from O to Million Users

✅ Design Consistent Hashing

✅ Design URL Shortening

✅ Back of the Envelope Estimation

✅ Design Key-Value Store

✅ SQL vs NoSQL, When to Use Which DB

✅ Design WhatsApp

✅ Design Rate Limiter

Design Search Autocomplete System / Typeahead System

Understand more HLD components:

- Message Queue , Kafka etc.
- Proxy Servers
- What is CDN
- Storage types:
(Block Storage, File Storage, Object Storage (S3) , RAID)
- File System
(Google File System, HDFS)
- Bloom Filter
- Merkle Tree , Gossiping Protocol
- Caching
(Cache Invalidation, Cache eviction)

How to Scale Database
- Sharding (Horizontal and Vertical)
- Partitioning
- Replication, Mirroring
- Leader Election
- Indexing etc.

Design Notification System

Design Pastebin

Design Twitter

Design Dropbox

Design Instagram

Design YouTube

Design Google Drive

Design Web Crawler

Design Facebook News Feed / Newsfeed System

Design Ticket Master

Pls Note:
Above are the popular questions, which companies asked frequently. Will add more questions or removed from the bucket list based on new questions asked by companies, based on its Priorities and my bandwidth..........

LOW LEVEL DESIGN

Low Level Design: Patterns to be covered	Low Level Design: Popular Interview Questions to be Covered
✅ Strategy Pattern	✅ S.O.L.I.D Principles
✅ Observer Pattern	✅ Design Notify-Me Button Functionality
✅ Decorator Pattern	✅ Design Pizza Billing System
✅ Factory Pattern	✅ Design Parking Lot
✅ Abstract Factory Pattern	✅ Design Snake n Ladder game
✅ Chain of Responsibility Pattern	✅ Design Elevator System
✅ Proxy Pattern	✅ Design Car Rental System
✅ Null Object Pattern	✅ Design Logging System
✅ State Pattern	✅ Design Tic-Tac-Toe game
✅ Composite Pattern	✅ Design BookMyShow & Concurrency handling
✅ Adapter Pattern	✅ Design Vending Machine
✅ Singleton Pattern	✅ Design ATM
Builder Pattern	✅ Design Chess game
Prototype Pattern	✅ Design File System
Bridge Pattern	✅ Design Splitwise
Facade Pattern	Splitwise Simplify Algorithm
Flyweight Pattern	Design CricBuzz / CricketInfo
Command Pattern	Deso True Caller
Interpreter Pattern	Design Car Booking Service like Ola, Uber
Command Pattern	Design Online Hotel Booking System
Interpreter Pattern	Design Library Management System
Iterator Pattern	Design Traffic Light System
Mediator Pattern	Design Meeting Scheduler
Memento Pattern	Design Online Voting System
Template Method Pattern	Design Inventory Management System
Visitor Pattern	Design Cache Mechanism
-	Design LinkedIn
-	Design Amazon
-	Design Airline Management System
-	Design Stock Exchange System
-	Design Learning Management System
-	Design a Calendar Application
-	Design (LID) Payment System
-	Design (LLD) Chat based system
-	Design Food delivery app like Swiggy and Zomato
-	Design Community Discussion Platform
-	Design Restaurant Management System
-	Design Bowling Alley Machine
-	Design (LCD) Rate Limiter
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