

System Design

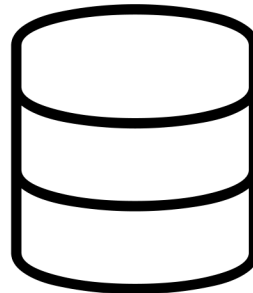
REQUIREMENTS



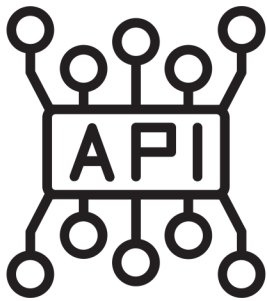
- Functional Requirements
- Non-Functional Requirements
- Daily Active Users
- Read-to-Write Ratio
- Usage Patterns
- Peak and Seasonal Events

DATABASE

- Data Model
- Entity Relationship Diagram
- SQL
- Type of Database



API DESIGN



- HTTP Verb
- Request-Response Headers
- Request-Response Contract

CAPACITY PLANNING

- Query Per Second (Read-Write)
- Bandwidth (Read-Write)
- Storage
- Memory



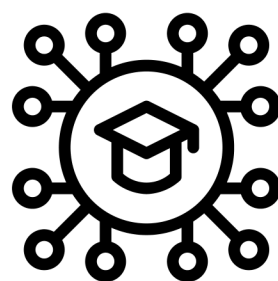
HIGH LEVEL DESIGN



- Basic Algorithm
- Data Flow
- Tradeoffs
- Alternatives
- Network Protocols (WebSocket, SSE)

DESIGN DEEP DIVE

- Single Point of Failures
- Bottlenecks (Hotspots)
- Concurrency
- Monitoring, Alerting, Logging
- Deployment
- Security



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