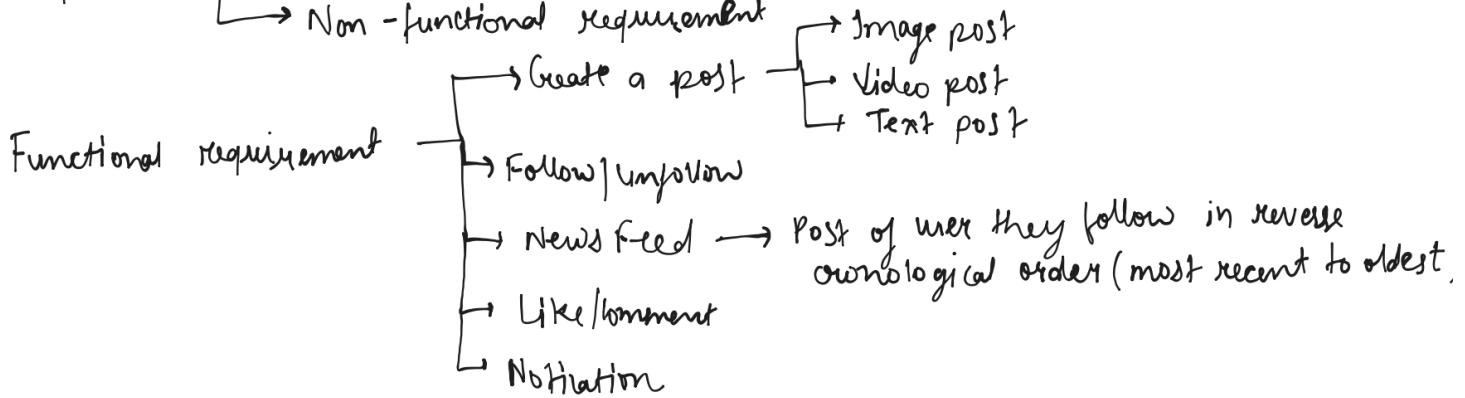


INSTAGRAM HLD

Requirements

- Functional requirement
- Non-functional requirement



NonFunctional requirements (Availability / Scalability)

→ News Feed System

- Availability (Metric: The system should be highly available - 99.999%.)
- Eventual consistency → If a user post something, it's okay if it doesn't show immediately but appears within a few seconds (1-2 seconds)
- Latency → Low latency [If we click on Home button Newsfeed should load in 1-2 seconds]
- Scalability → The system should scale throughout the globe
- Extensibility → Easier to extend in the future. If we need to add features replying to comment, post recommendation, or ads.
- Usability → For newsfeed system, rendering should be super fast (We want good user experience)

Capacity estimation

- Daily active users (DAU) & Monthly Active users (MAU)
- Throughput
- Storage
- Memory
- Network