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My System Design Template



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2.9K

(1) FEATURE EXPECTATIONS [5 min]



- (1) Use cases
- (2) Scenarios that will not be covered
- (3) Who will use
- (4) How many will use
- (5) Usage patterns

(2) ESTIMATIONS [5 min]

- (1) Throughput (QPS for read and write queries)
- (2) Latency expected from the system (for read and write queries)
- (3) Read/Write ratio
- (4) Traffic estimates
 - Write (QPS, Volume of data)
 - Read (QPS, Volume of data)
- (5) Storage estimates
- (6) Memory estimates
 - If we are using a cache, what is the kind of data we want to store in
 - How much RAM and how many machines do we need for us to achieve this
 - Amount of data you want to store in disk/ssd

(3) DESIGN GOALS [5 min]

- (1) Latency and Throughput requirements
- (2) Consistency vs Availability [Weak/strong/eventual => consistency | Failover]

(4) HIGH LEVEL DESIGN [5-10 min]

- (1) APIs for Read/Write scenarios for crucial components
- (2) Database schema
- (3) Basic algorithm
- (4) High level design for Read/Write scenario

(5) DEEP DIVE [15-20 min]