

## TWITTER DESIGN

### REQUIREMENTS

- 1) User should be able to tweet as fast as possible
- 2) View Tweet Timelines:
  - 1) User Timeline(UT) —> Users' tweets and retweets
  - 2) Home Timeline(HT) —> Recent Tweets from people user follows
  - 3) Search Timeline(ST) —> Displays results(tweets and profiles) based on hashTag(#tag) or keywords
- 3) User should be able to follow other users.
- 4) User should be able to tweet millions of followers within 5 secs
- 5) User should be able to see trends.

## ANALYSIS:

- 1) On an average Twitter gets
  - 1) 500 writes/sec ie 500 ie tweets written per second
  - 2) 500K reads/sec ie 500K tweets read per second
- 2) Based on the above data/observation it is clear that Twitter is Read Heavy . Hence reads should have excellent availability, scalability and performance. The performance of writes should be good too
- 3) The User Timeline and Home Timeline should be AVAILABLE for readers always and almost INSTANTANEOUSLY. But, it is OK if the Timelines are a bit outdated ie favour Eventual Consistency over immediate Consistency