System Design Basics:

<https://www.youtube.com/watch?v=UzLMhqg3_Wc>

* CAP theorem : C ( consistency ) and A (Availability ) P( partition ), NO-Sql (A) and SQL (C) will be matter.

<https://www.educative.io/edpresso/what-is-the-cap-theorem?affiliate_id=5082902844932096&utm_source=google&utm_medium=cpc&utm_campaign=platform2&utm_content=ad-1-dynamic&gclid=CjwKCAjw44jrBRAHEiwAZ9igKMO8VnHXYFlnVsB1ntIh-ic5UrZnKzt_CDPIruBRxJZYMz-lYk8AkRoC8IcQAvD_BwE>

* optimistic vs pessimistic locking: optimistic ex : lock data base while updating the row to check other one has updated the row.

Pessimistic – first acquired the lock and do the transaction.

* Strong (SQL)vs eventual (No-sql)consistency-

no sql : schemas

key value pared : redis (it can be use for cache purpose also)

documents storage : mongo db

wide column based : Cassandra (fb messge search)

EAV based databases: use for metadata of other table