**System Design Interview**

Below is all the content described in the video.

A - Ask good questions

B - Don't use buzzwords

C - Clear and organized thinking

D - Drive discussions with 80-20 rule

**Things to consider**

Features, API, Availability, Latency, Scalability, Durability, Class Diagram, Security and Privacy, Cost-effective

**Concepts to know**

Vertical vs horizontal scaling HTTP vs http2 vs WebSocket

CAP theorem TCP/IP model

ACID vs BASE ipv4 vs ipv6

Partitioning/Sharding TCP vs UDP

Consistent Hashing DNS lookup

Optimistic vs pessimistic locking Http & TLS

Strong vs eventual consistency PKI and certificate authority(CA)

RelationalDB vs NoSQL Symmetric vs asymmetric encryption

Types of NoSQL Load Balancer

Key value CDNs & Edges

Wide column Bloom filters and Count-Min sketch

Document-based Paxos

Graph-based Leader election

Caching Design patterns and Object-oriented design

Data center/racks/hosts Virtual machines and containers

CPU/memory/Hard drives/Network bandwidth Pub-sub architecture

Random vs sequential read/writes to disk MapReduce

Multithreading, locks, synchronization, CAS(compare and set)

**Tools**

Cassandra

MongoDB/Couchbase

Mysql

Memcached

Redis

Zookeeper

Kafka

NGINX

HAProxy

Solr, Elastic search

Amazon S3

Docker, Kubernetes, Mesos

Hadoop/Spark and HDFS