SYSTEM DESIGN -

1 million new bookmarks every day.

Delicio.us

Userid → bookmarks.

1 bookmark → 200 characters.

200 bytes

200 bytes * 1 million

10^6

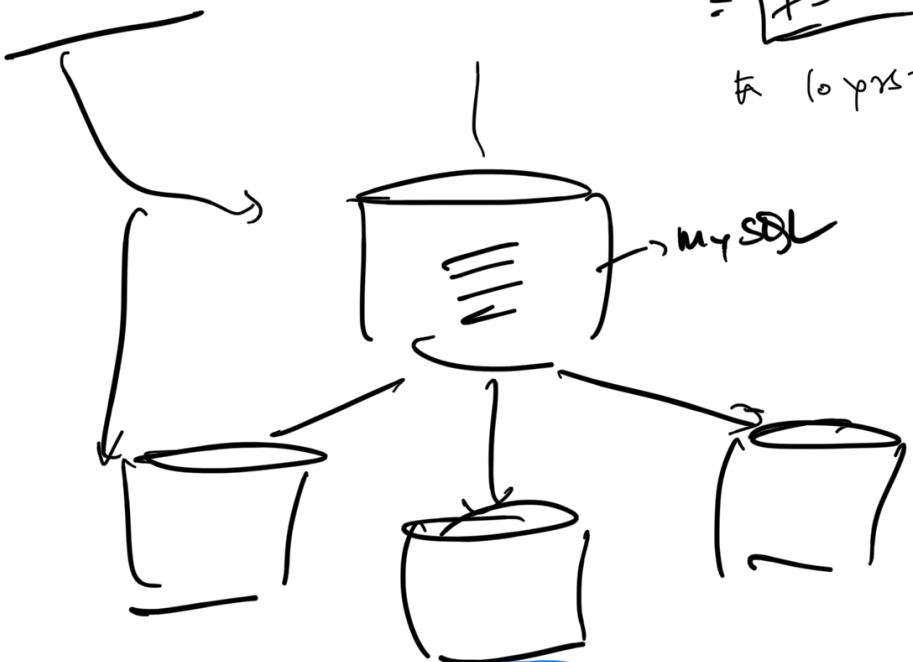
1 MB

= 200 MB

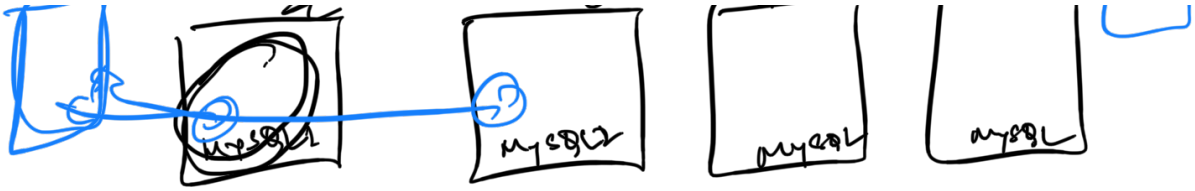
200 MB * 365

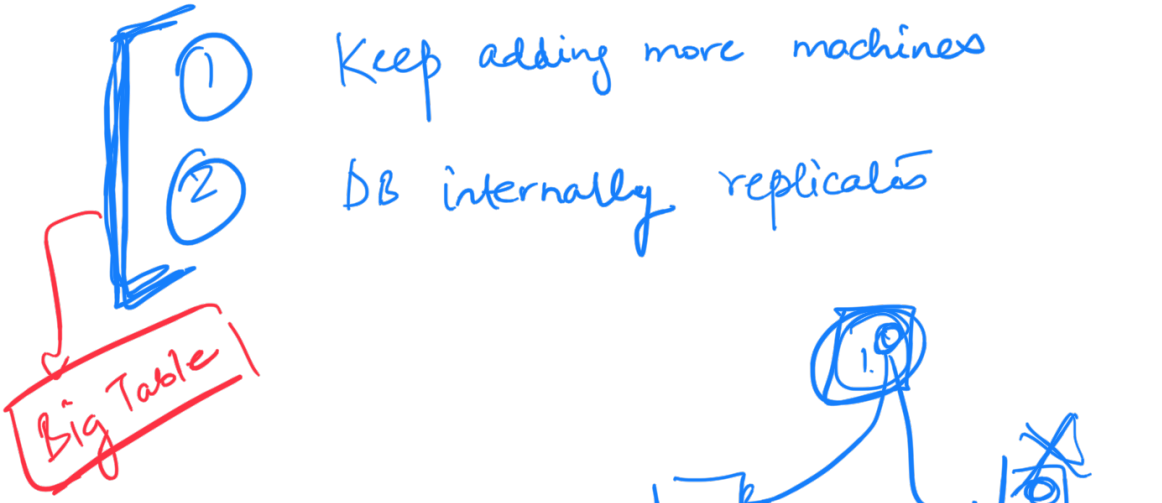
= 73 GB

for 10 yrs = 730



RDBMS



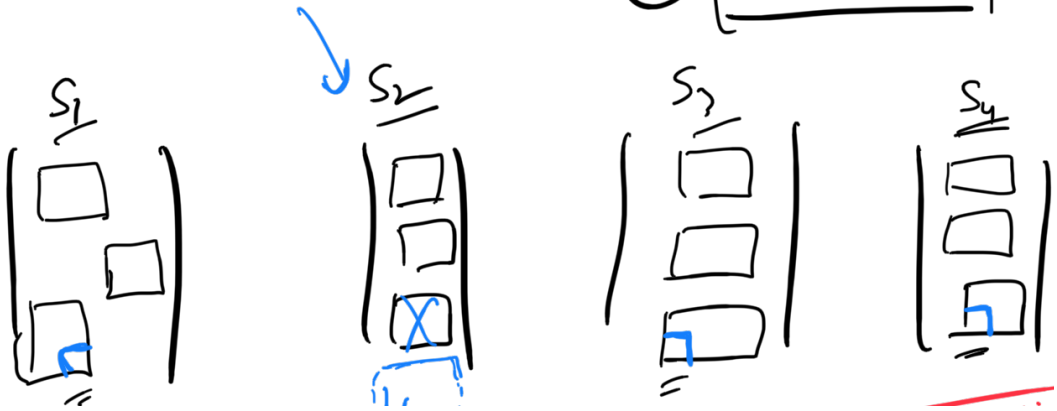


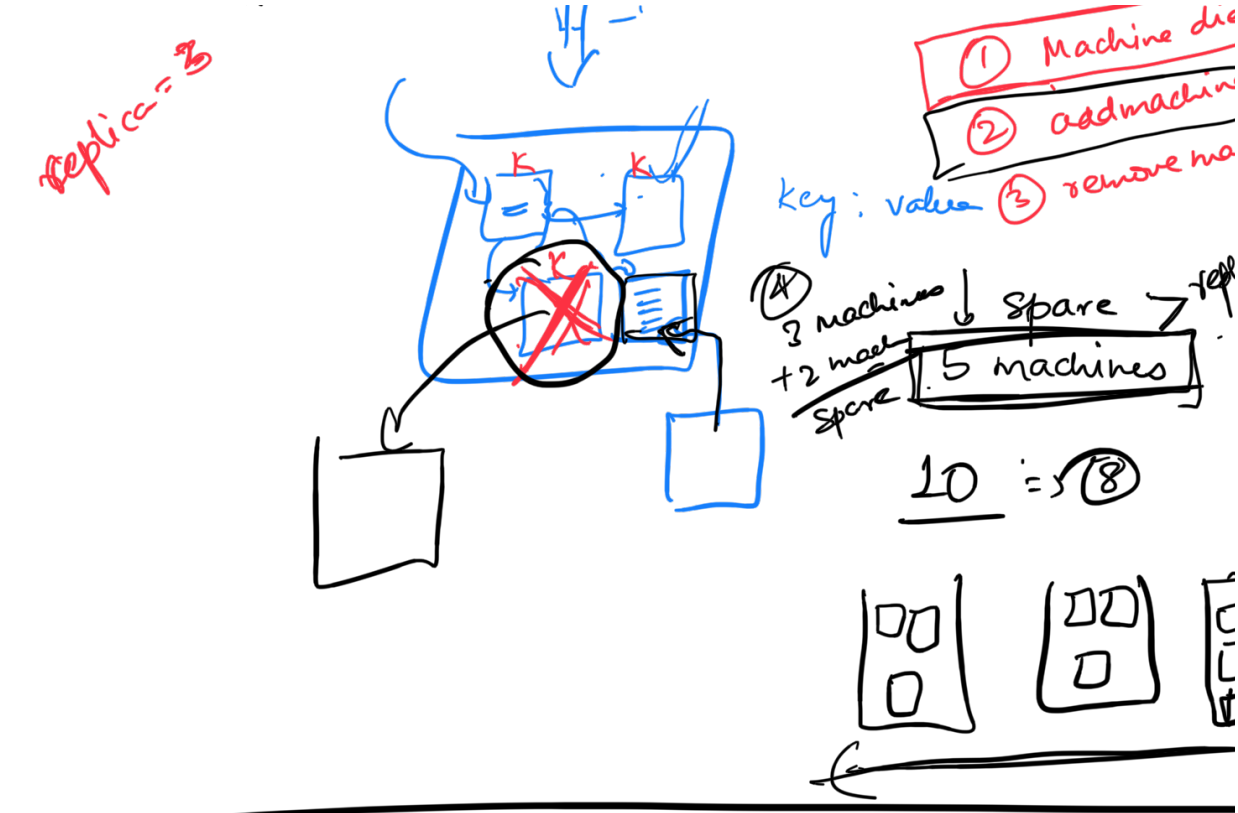
1. Key : value 2
2. get value(key)

Key : value

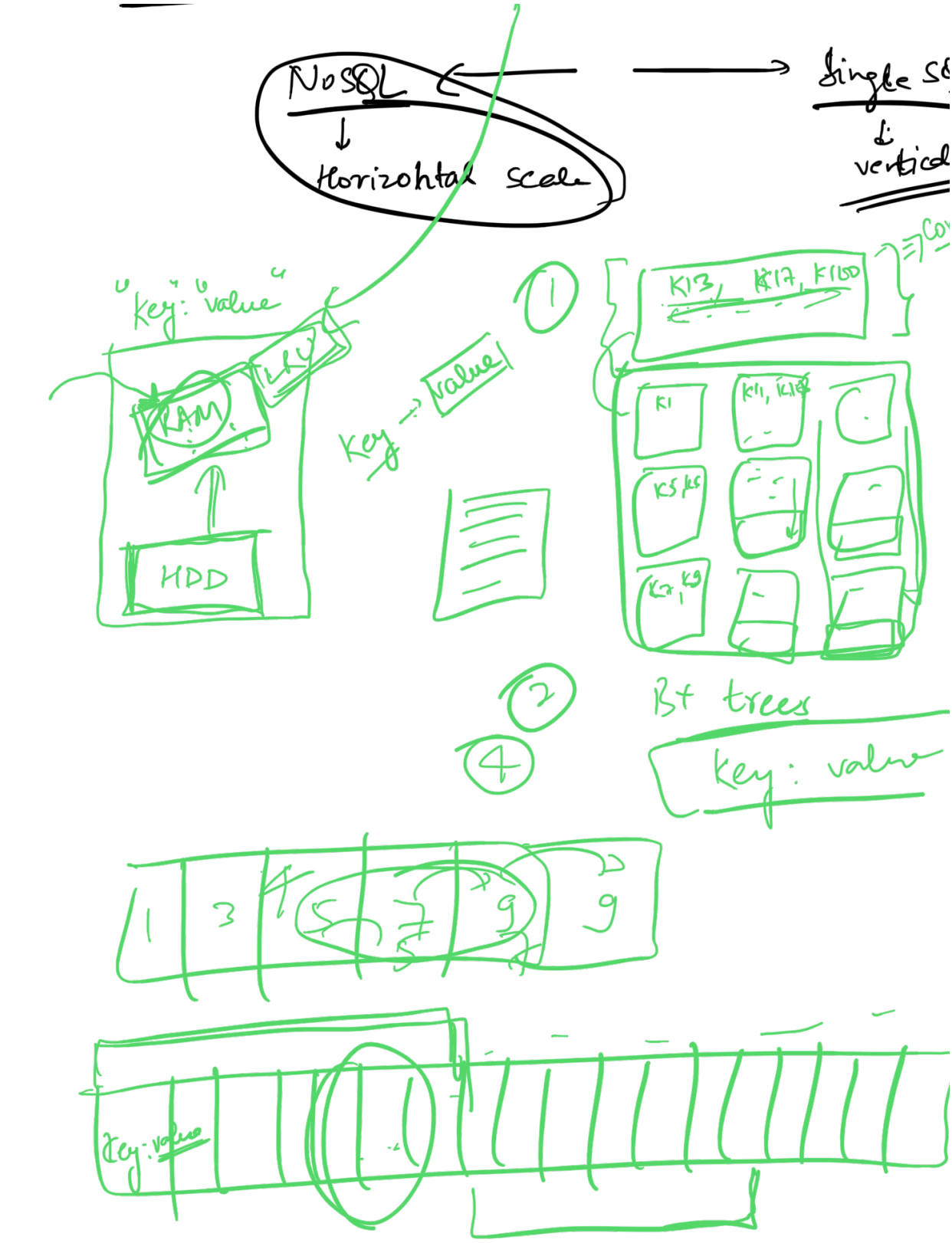
Key (K) → CH

1. Replication based config.
2. large storage
3. Add machine




replica = 3
K
K
K
key : value
① Machine die
② addmachin
③ remove ma
3 machines
+2 mach
spare
spare
5 machines
10 :: 8


Client
Local BC
K:V
BigTable
S1
slow
S2
S3
S4
Master
→ machine alive/not
→ machine goes out



SCHEMA

① MongoDB (Document DB) ← JSON object

db. insert(obj);

{ "make" : "mercedes"
}

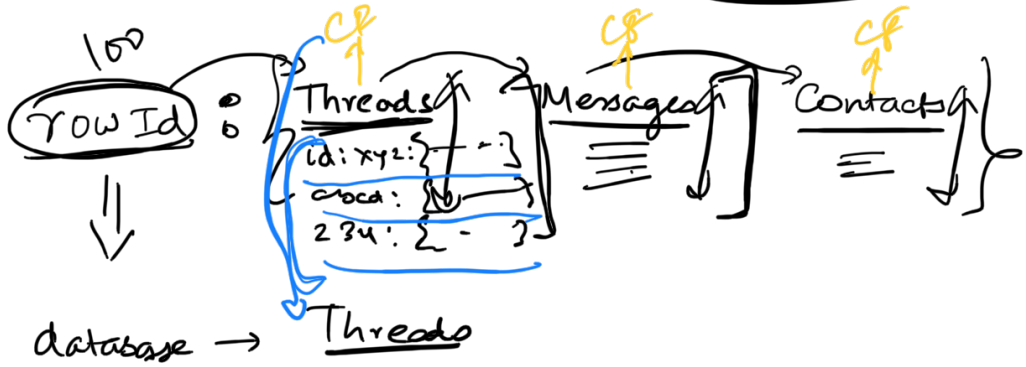
{ "item" : "car"
"price" : "1234
"owner" : { "nam
"city" : "Luc
}
}

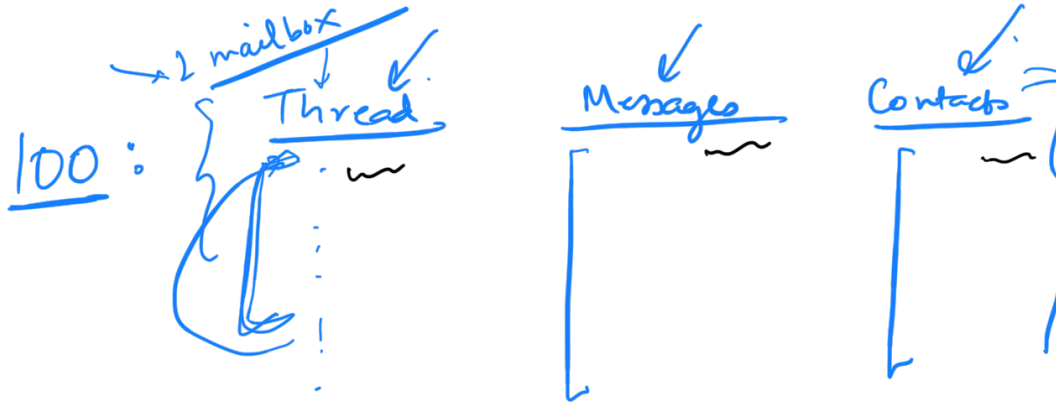
db.find({"item": "car"}, {"and", "price":

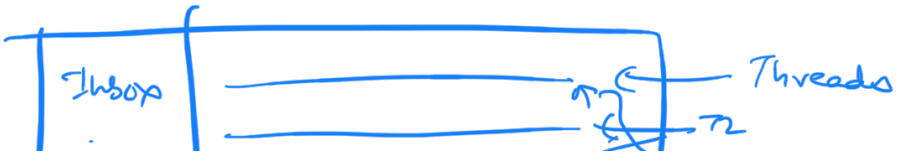
(2) Key : value

"ajay" → "passed"
"anshuman" → "failed"

(3) Column family store (HBase, Cassandra)

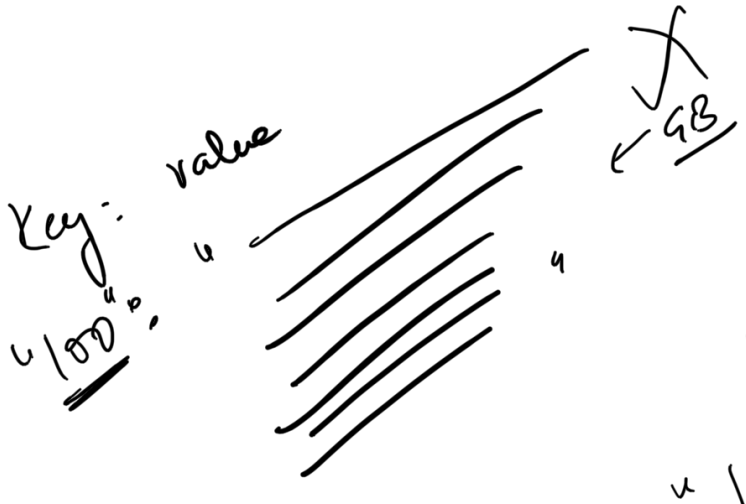


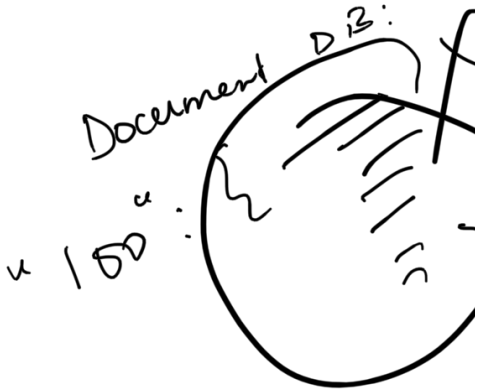




primary key → sharding

db.write (rowIdx, {"thread": ...





---

① Document DB — Easiest

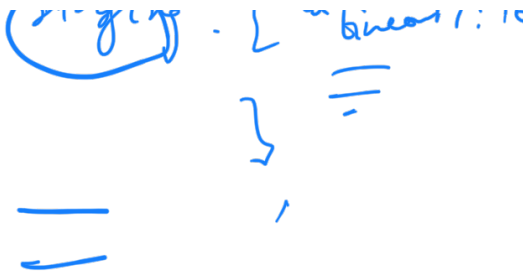
② Key value — Easy

③ Colum Famil — Slig

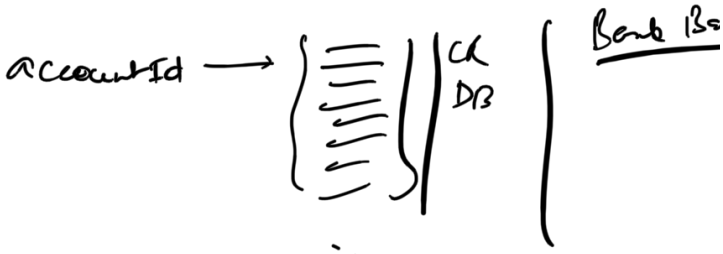
① Configs

prod : { "servers": 50,
"timeout": 5,
"xy ...

staging : ...



(2) Bank Transactions



Column Family.

(3) Delicio...