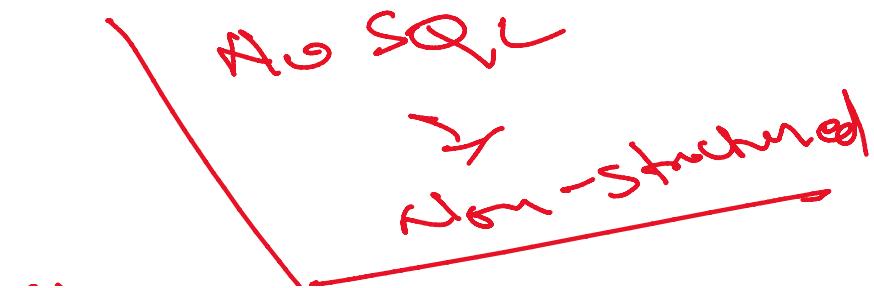
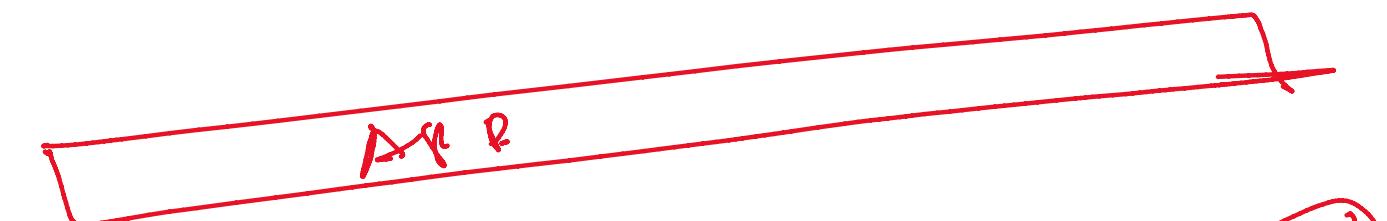


RDS (Relational Database Service)

→ User don't have access to the server, ~~so no SSH~~.

→ API.

- ① Backup & DR
- ② Multi AZ.
- ③ Installation for S3 and Lambda.



EC2

EC2

MySQL
Oracle
Structured Query

Non-

Conse-

- ① Backup & Dr -
- ② EC2 running in AZ -
- ③ Performance slower -

timers key

H-ID	FNAME	MNAME	SNAME
1	John	John	John
2	Tom	Tom	Tom
3	Sam	Sam	Sam
4	Tom	Tom	Tom

H-ID	FNAME	Type
1	John	Boy
2	Tom	Boy

Composite
P key

H-ID	L-ID
1	1
2	2

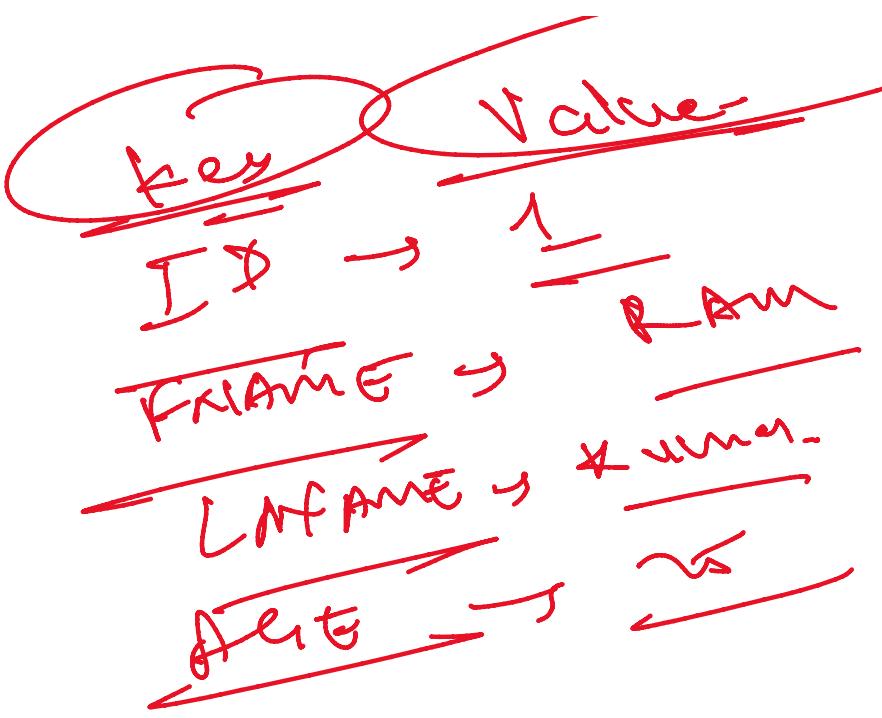
ACID

NoSQL → Document Based Data

values

ID: 1
name: Ram

- ① MongoDB
- ② Redis
- ③ Cassandra
- ④ Neo4j



→ {

FName: Ram

Age: 25

→ {

ID: 2

FName: Mohan

Type: Dog

ID: 2

Name: Kumar

→ {

ID: 3

FName: Mohan

- ① Document Based Database. → MongoDB
- ② Key value Database → redis → Twitter, LinkedIn
- ③ White column Database → Cassandra
→ Netflix

ID : 1

FName : Ram

Lname : Kumar

ID: 2

FName: Mohan

Age: 25

... → ?

ID: 3

Name: Mohan

FNAM \rightarrow "Ran"
 CNAM \rightarrow "Kumar"
 AGS \rightarrow "20"

CNAMES \rightarrow ?
 LNAME \rightarrow ?

FNAM = Name
 CNAM = Sharma
 AGS \rightarrow 1

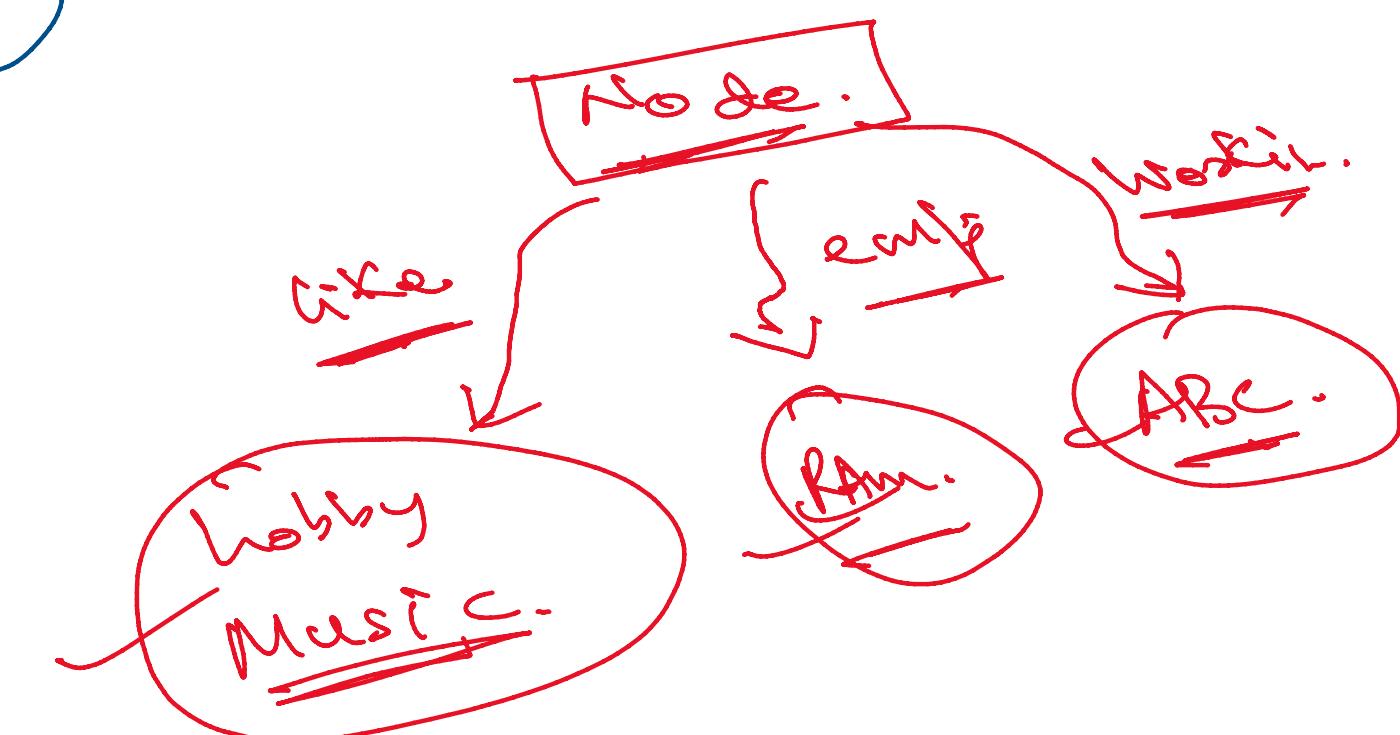
	1 \rightarrow	FNAM	CNAME \rightarrow AGS
1		Ran	
2		Mohan	20
3		Mann	Sharma

(A) Graph SQL: nesting

Walmart
 > softs, take

BASE
 \rightarrow
 Eventually

Basically
 Available
 Consistent



Available:

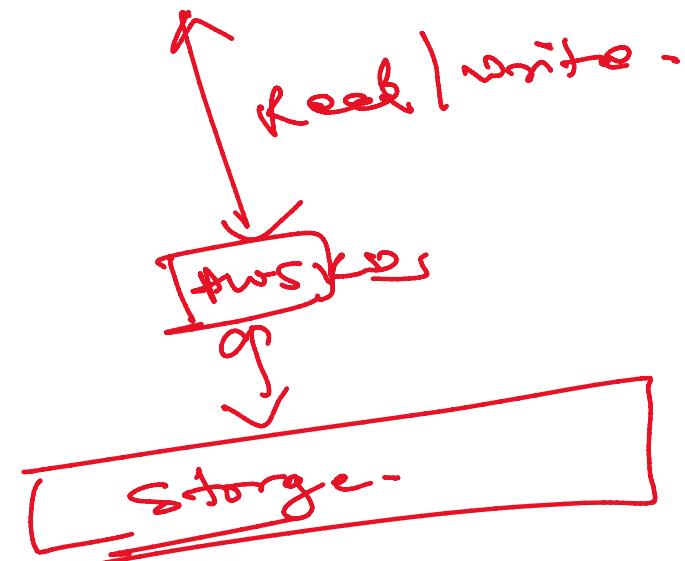
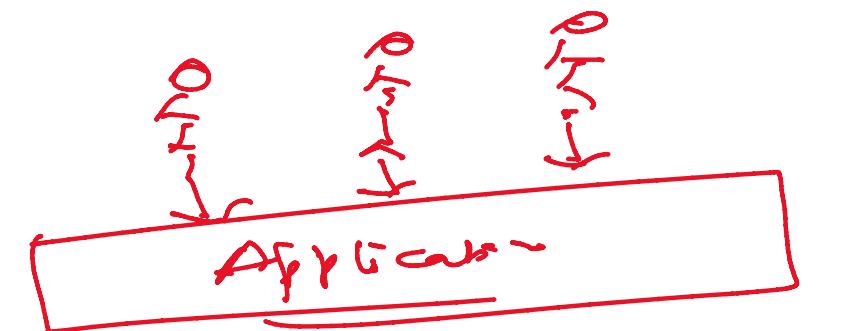
RDS: Database Service as a Service.

mysql, postgresql, Oracle, Microsoft SQL,
MariaDB

Amazon Aurora → flag ship of Amazon.

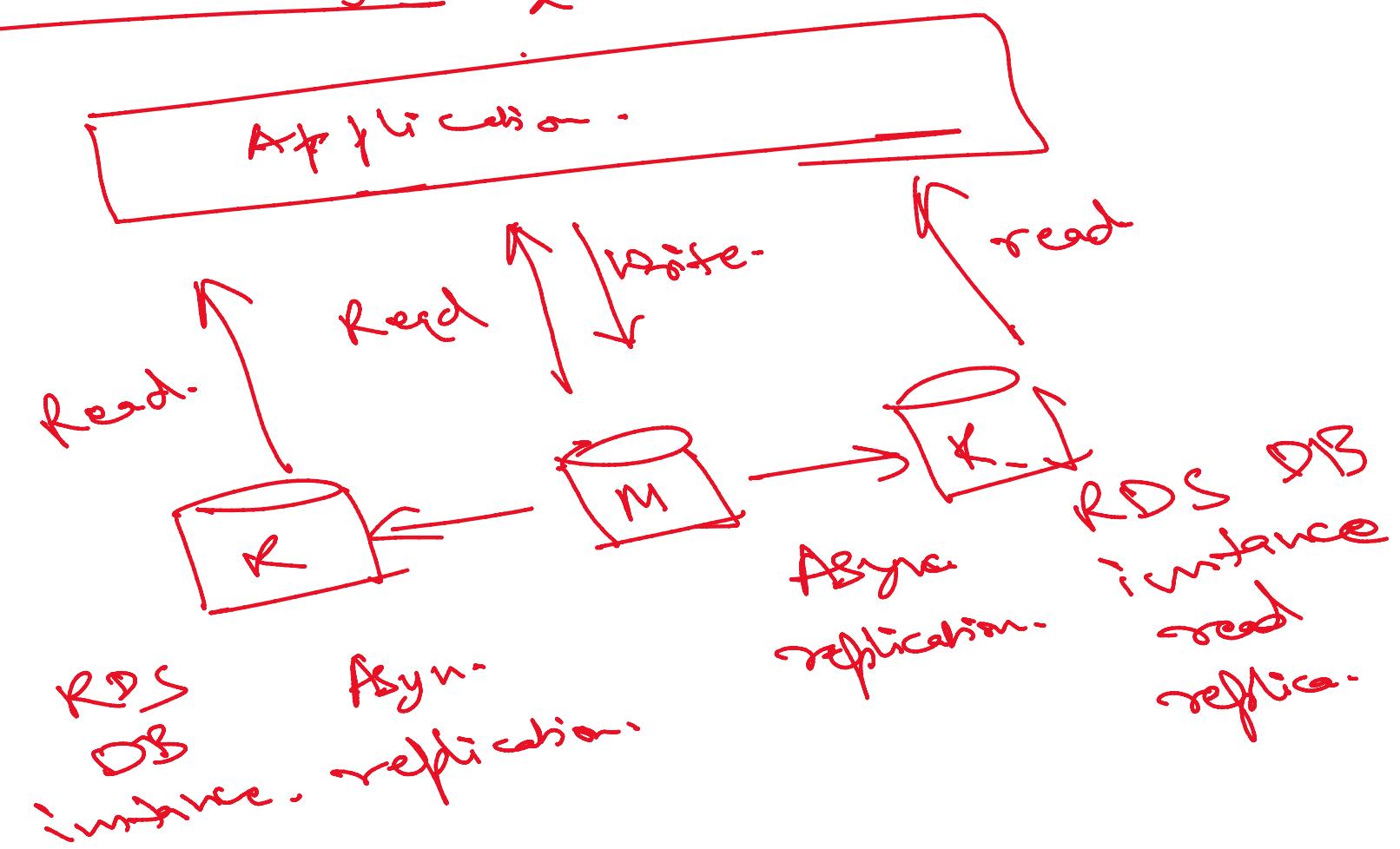
RDS - storage Auto Scaling

Max-Threshold



RDS Read replica for read scalability

- 1. up to 15 read Replicas
- 2. Within AZ, Cross AZ or Cross Region
- 3. Consistent
- 4.



Production Database:

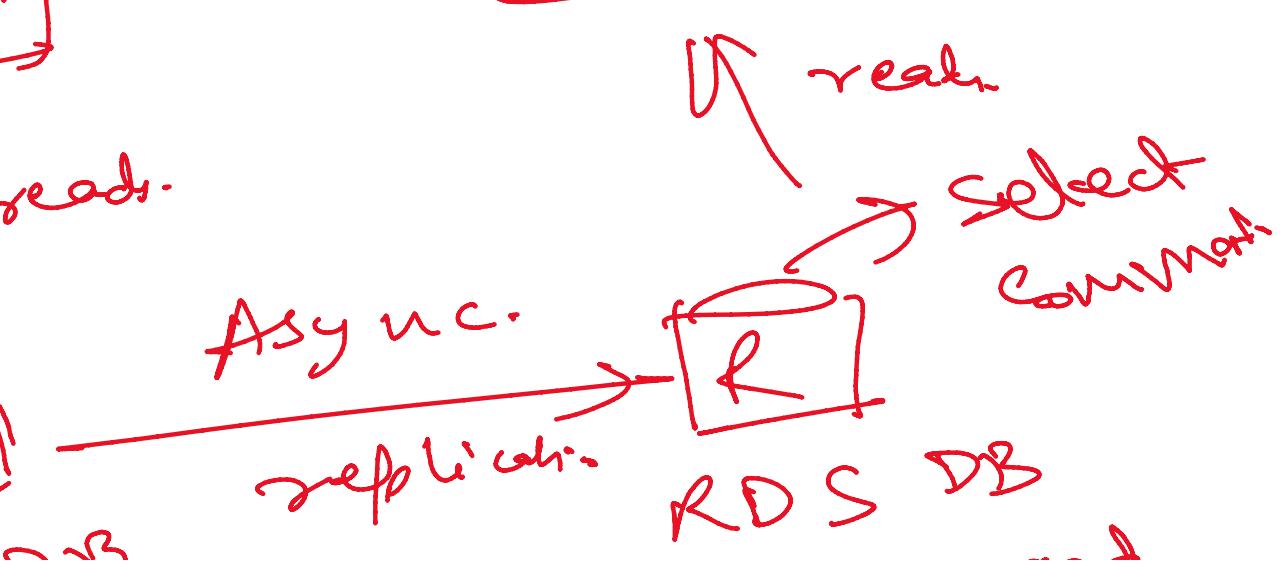
- 1. Normal load

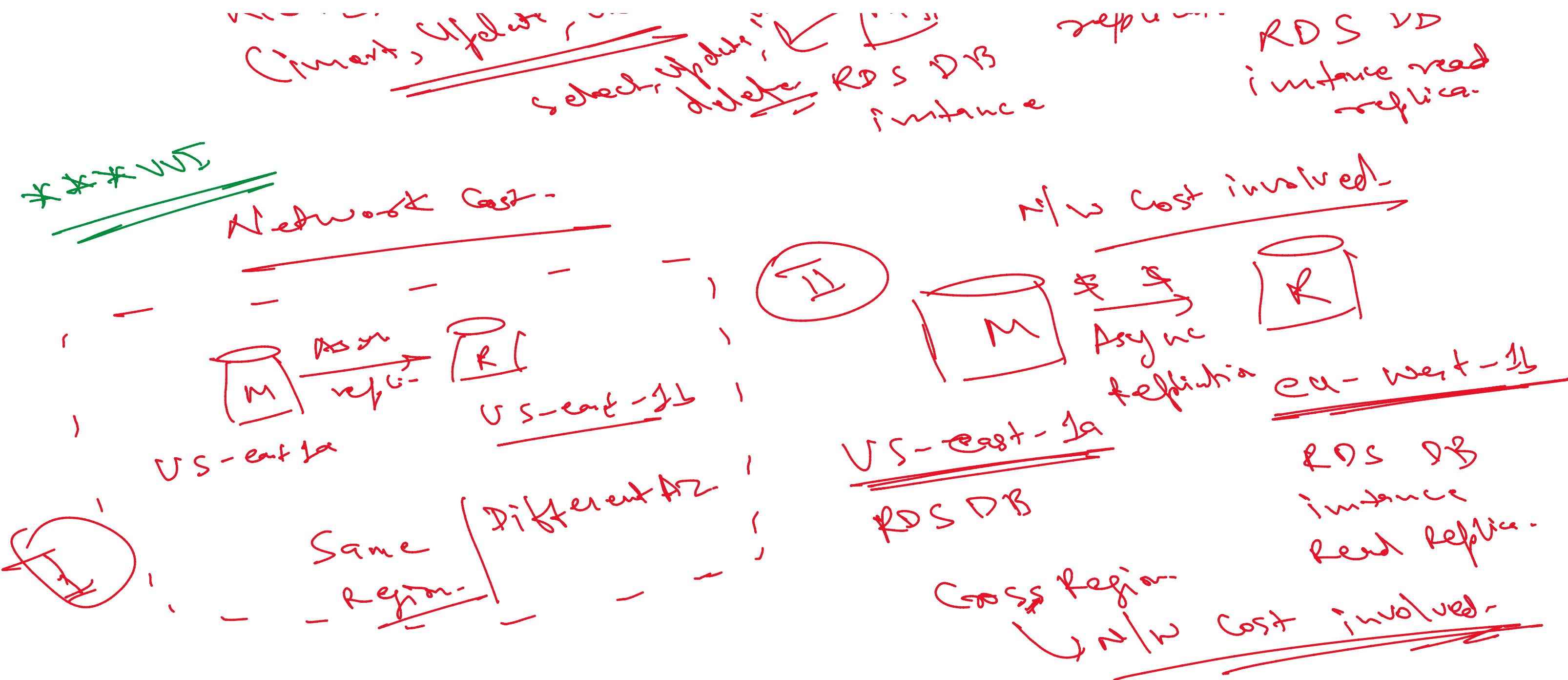
Select command → SQL

Not transactional
insert, update, delete

Write → Read

insert, update, delete



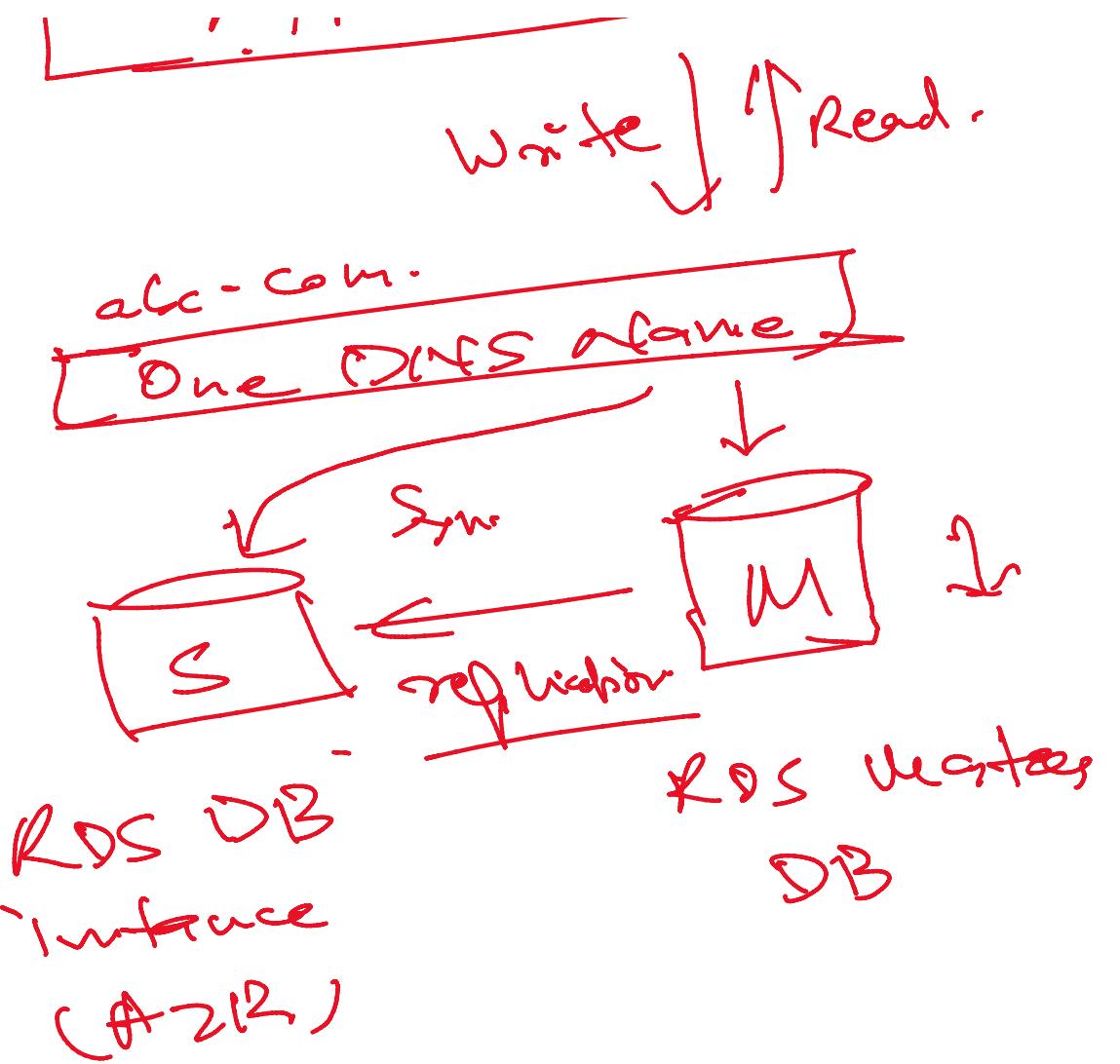
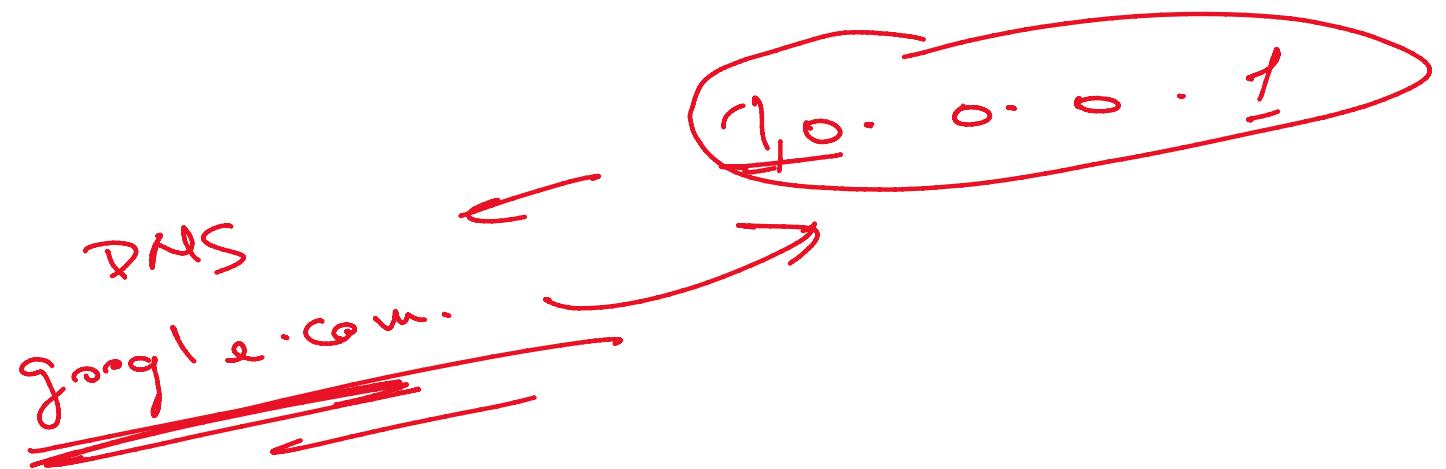


RDS Multi-AZ (Disaster Recovery)

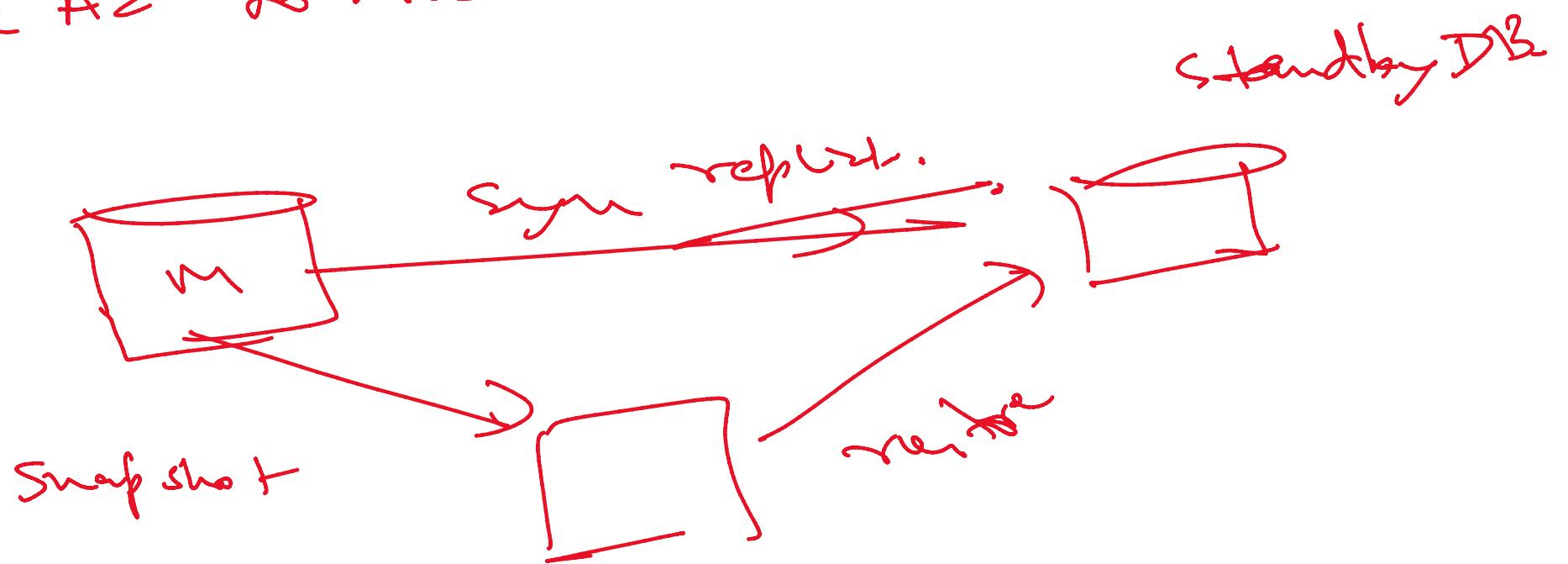
ac.com.

Application

11.1.



RDS single AZ to multi AZ -



DB
snaps no 2

Assignment:-

① Migration of data from EC2 instance to RDS

Database

Hint:-

- ① EC2
- ② Database
- ③ entry.

RDS Database -
Migration of Data
from EC2 to RDS
Database -