DB

Asynch

Process

Database Replica

(single point
of failure)
X

1. Create DB Server

27019 → db1 (physical files) ⟶

27020 → db2   ⟶ rs1

27021 → db3

2. Initialize Replica Set

⟶ rs.init ({_id: rs1, mean[]

.. Initialize Replica Set

How to initialize

Impact
↓
Elect a leader.
↓
why?
single point
of
contact.

rs.initiate ({

  _id, rs1

  members [
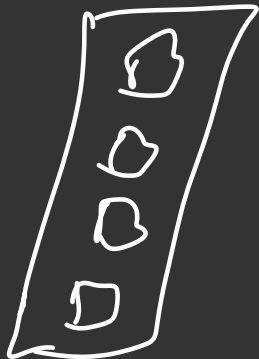   { _id: *0 , host: LH:22019},
   { _id: 1 , ————————→ 20 }
   { _id: 2 , ' ————————→ 213,] }

Joornal

CPU

4Gb RAM

Harddisk

How to
write. ?

Buffer.

Joornal
(Logs)

Data
Files.
(c.ot
i.ot)

Actions, not results ← write? ←

WAL
(Write Ahead Logs)
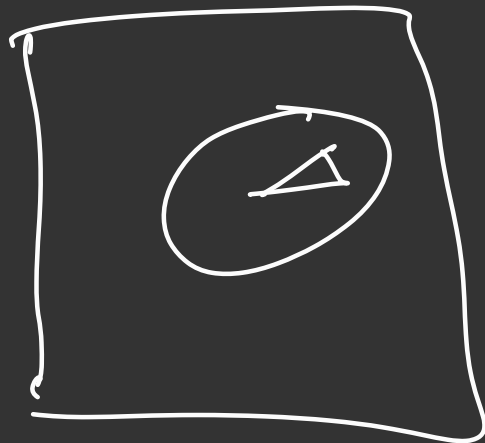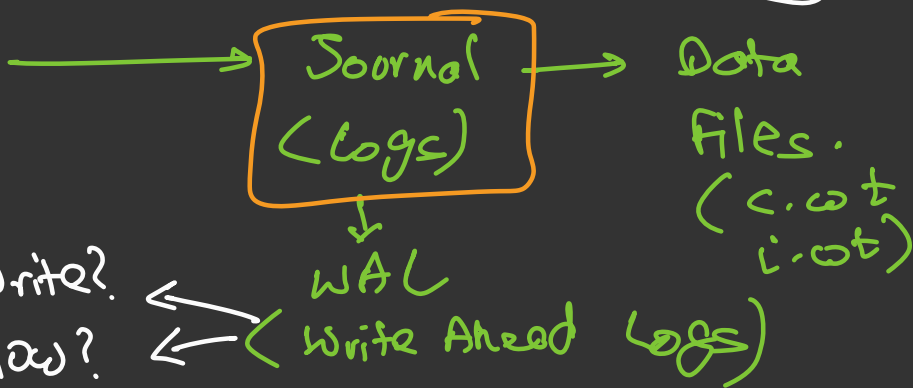
String Append ← How? ←

Joornal (Example)

CPU

4Gb RAM
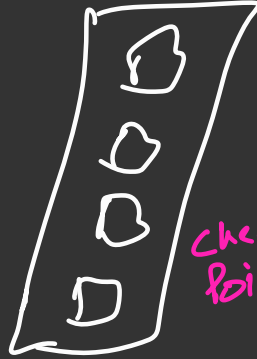
Harddisk (200GB)
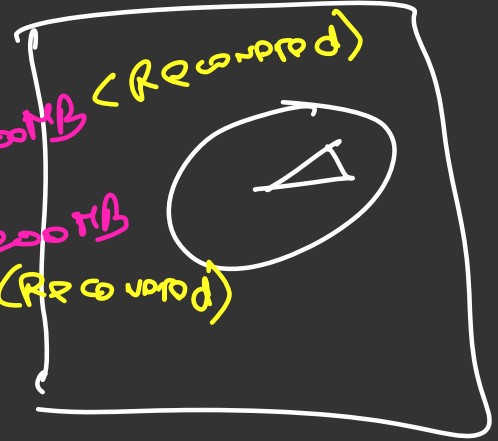
300MB (Recovered)

200MB
(Recovered)

check
Point

Lost

(300MB)

buffer.

Joornal
(Logs)

Data
files.
(c.oot
i.oot)

How to
write. ?

Actions, not
results ← write? ←

WAL
(Write Ahead Logs)

String Append ← How? ←

Disaster $\rightarrow$ Crash of Harddisk.

$\downarrow$

Life X

Recovery $\rightarrow$ Journal $\rightarrow$

Checkpoint