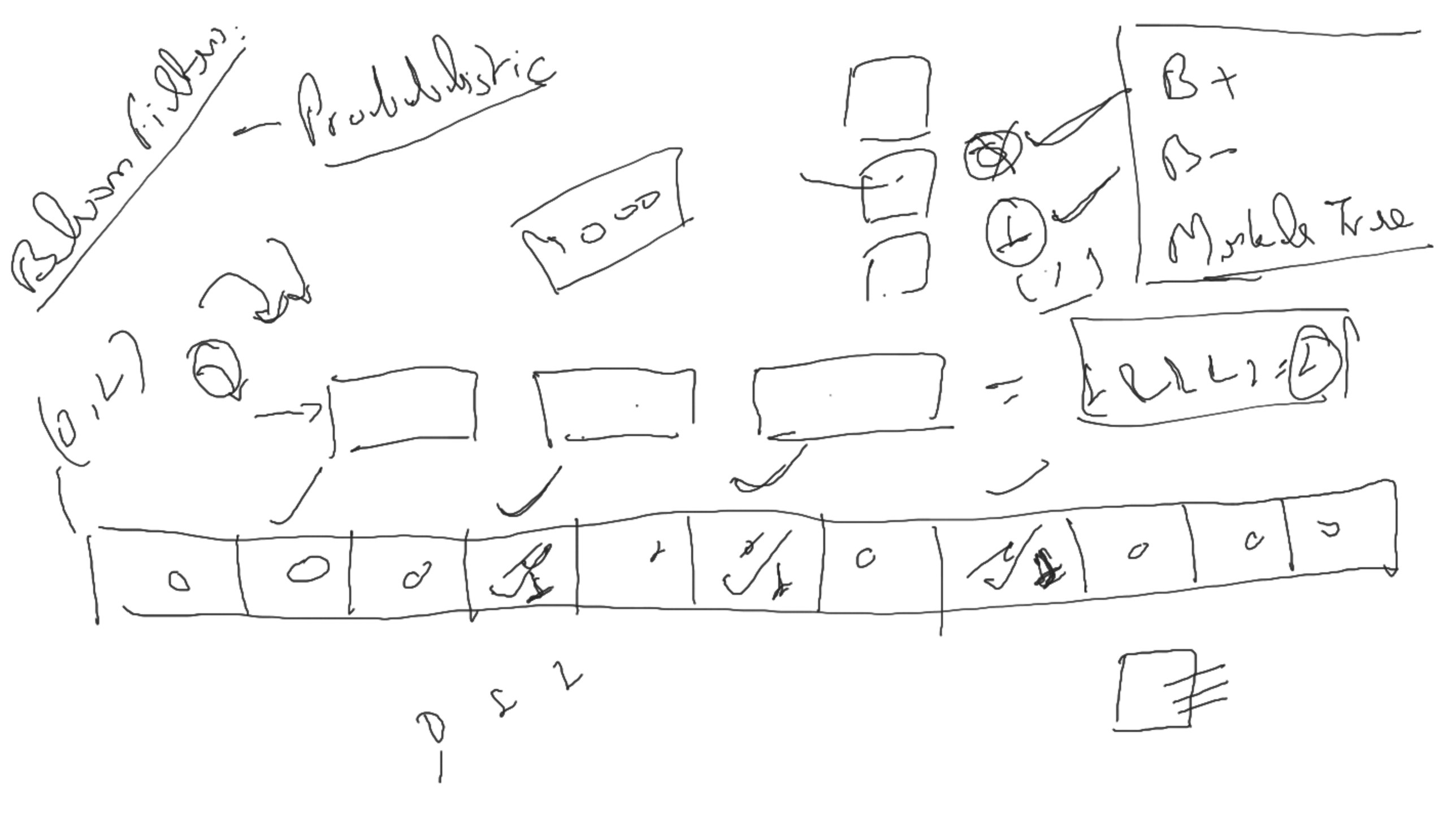
Lecture . 7

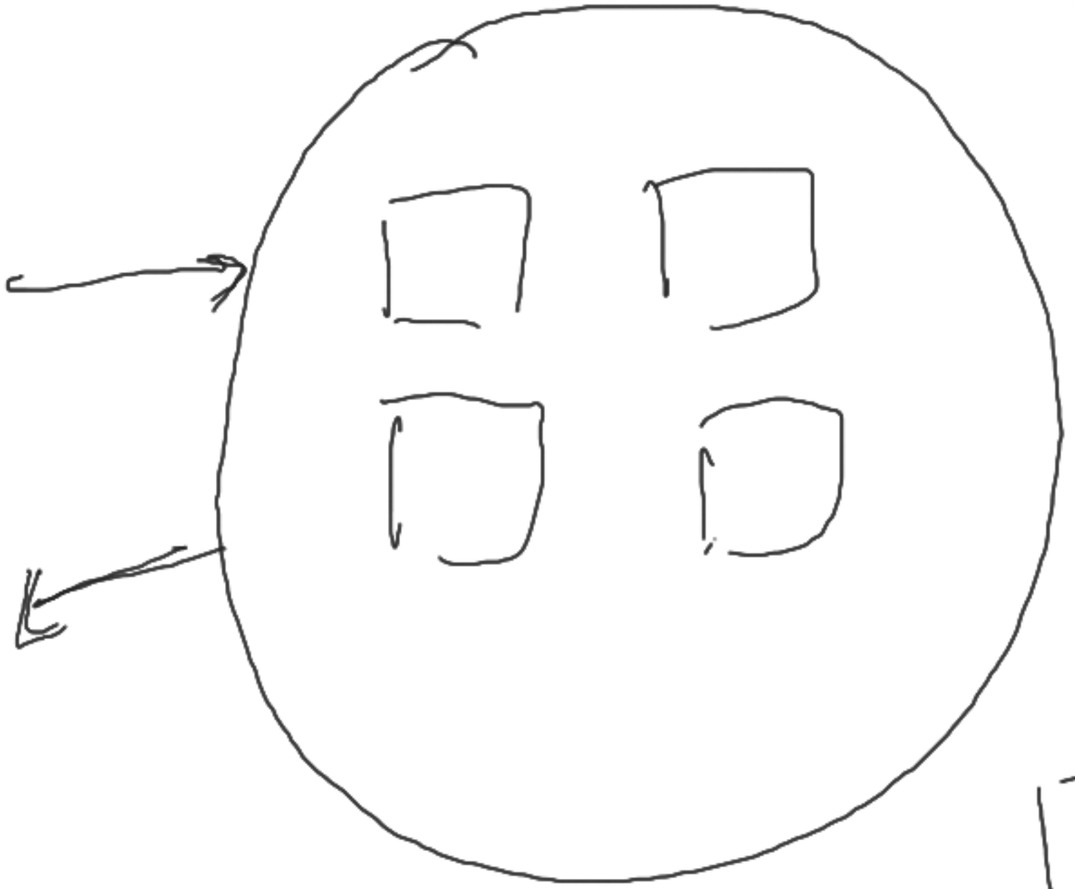
Topic of Discussion

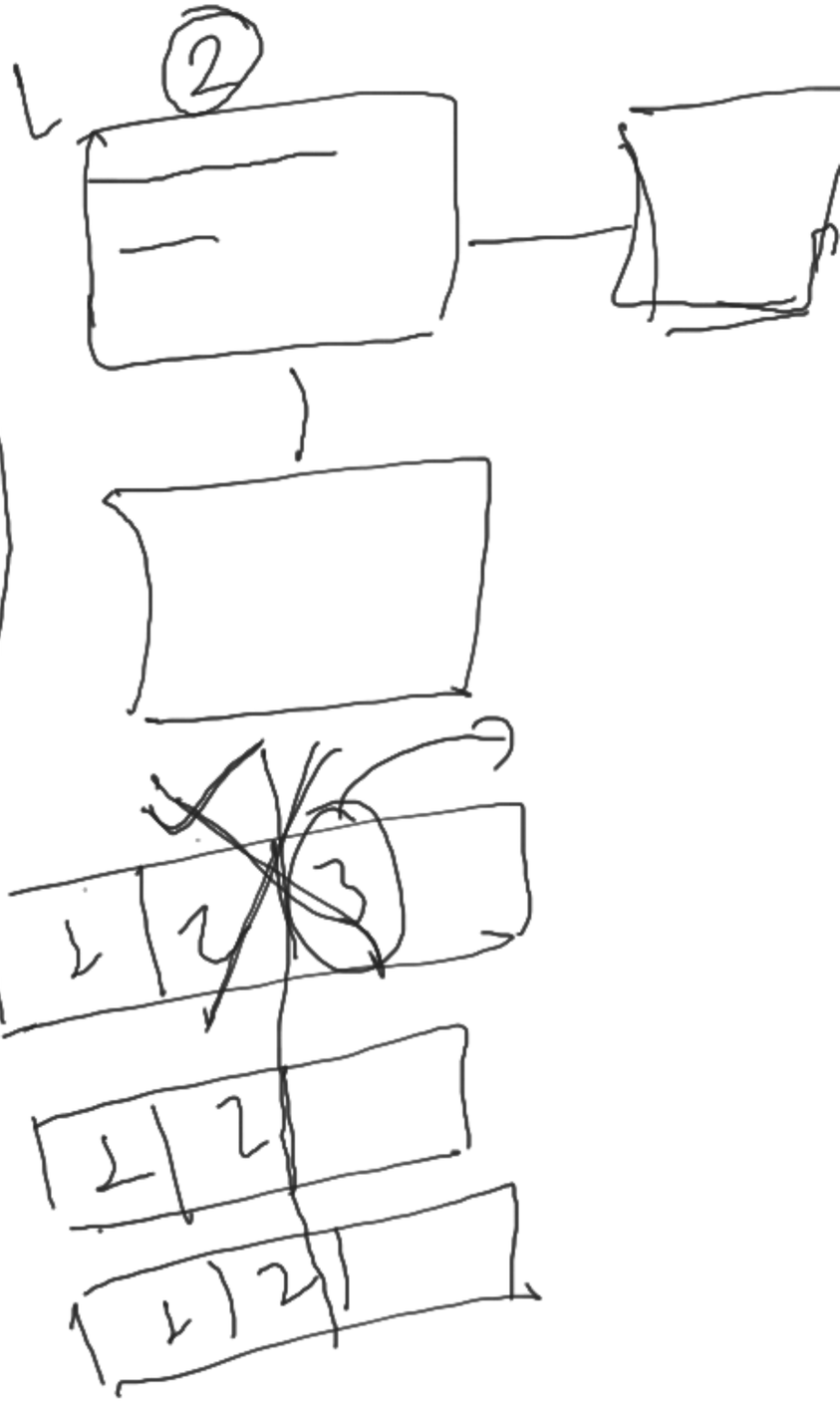
1. Bloom Filters-
2. High Water Mark Index
3. High Water Mark with Reconcillation in Kafka.
4. CAP Theorem
5. Consistent Hashing.

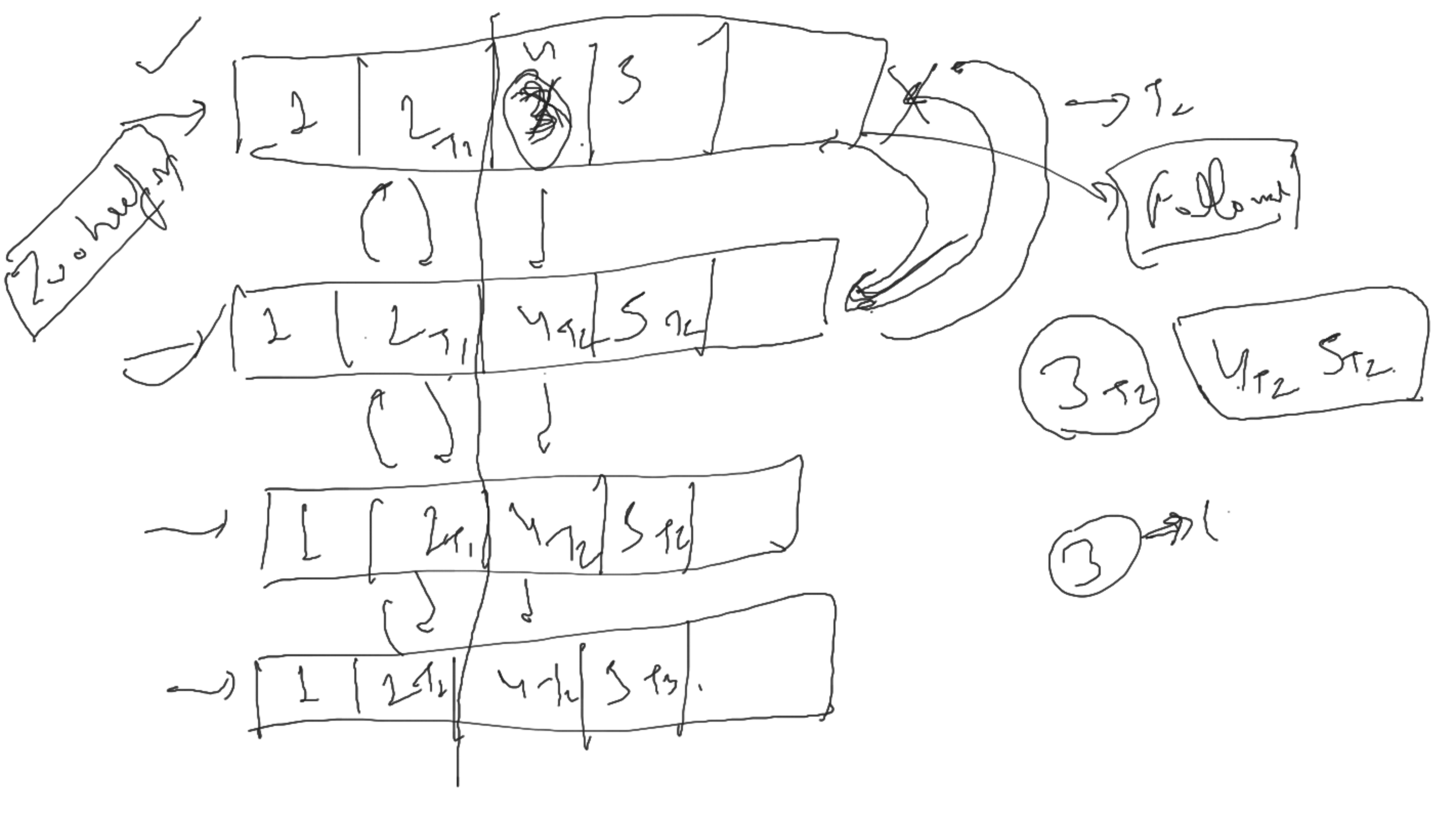
⑥ System Design for CI/CD Deployment


Bloom filters
– Probabilistic
B+
B-
Merkle Tree

High Water Mark Index: =

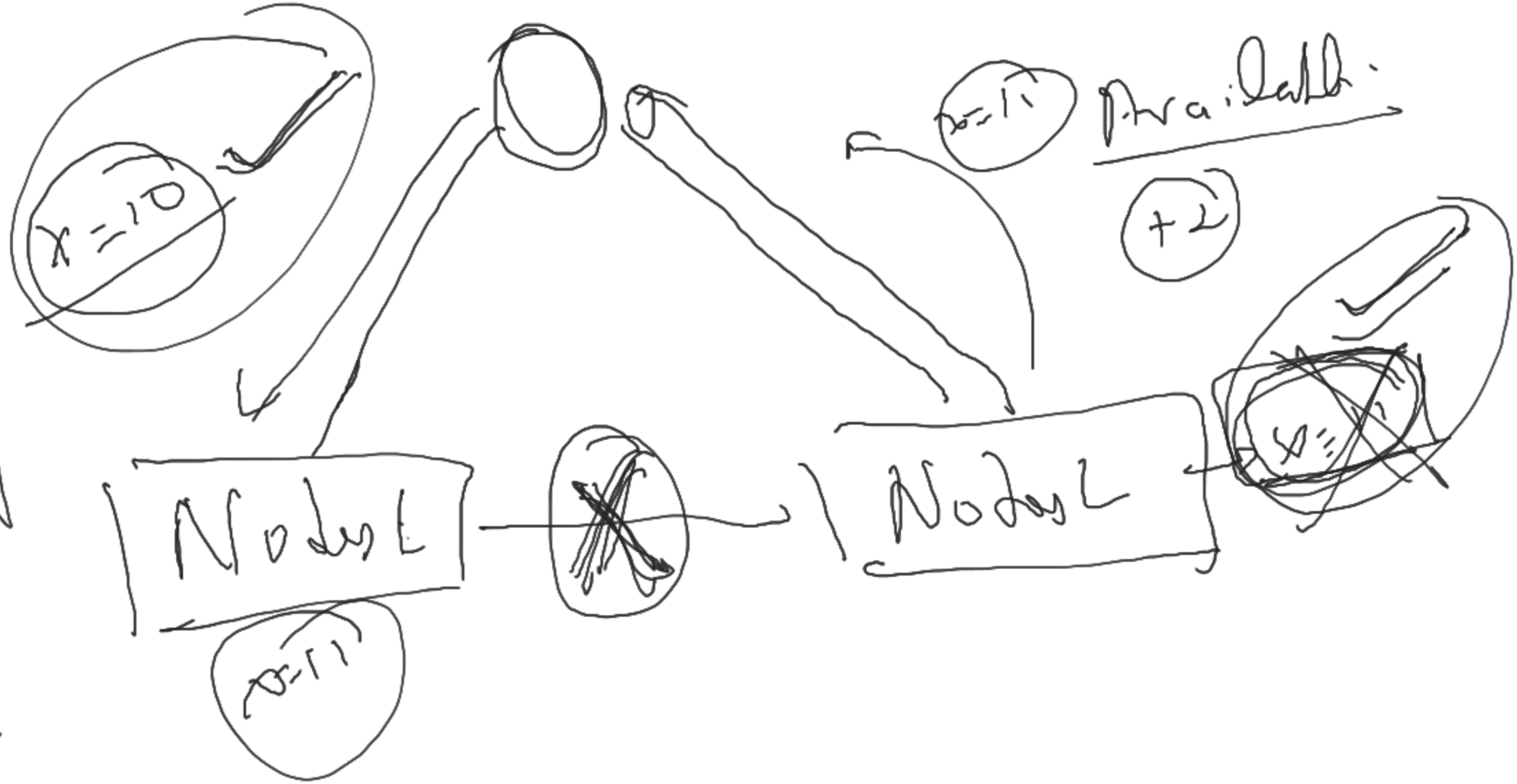


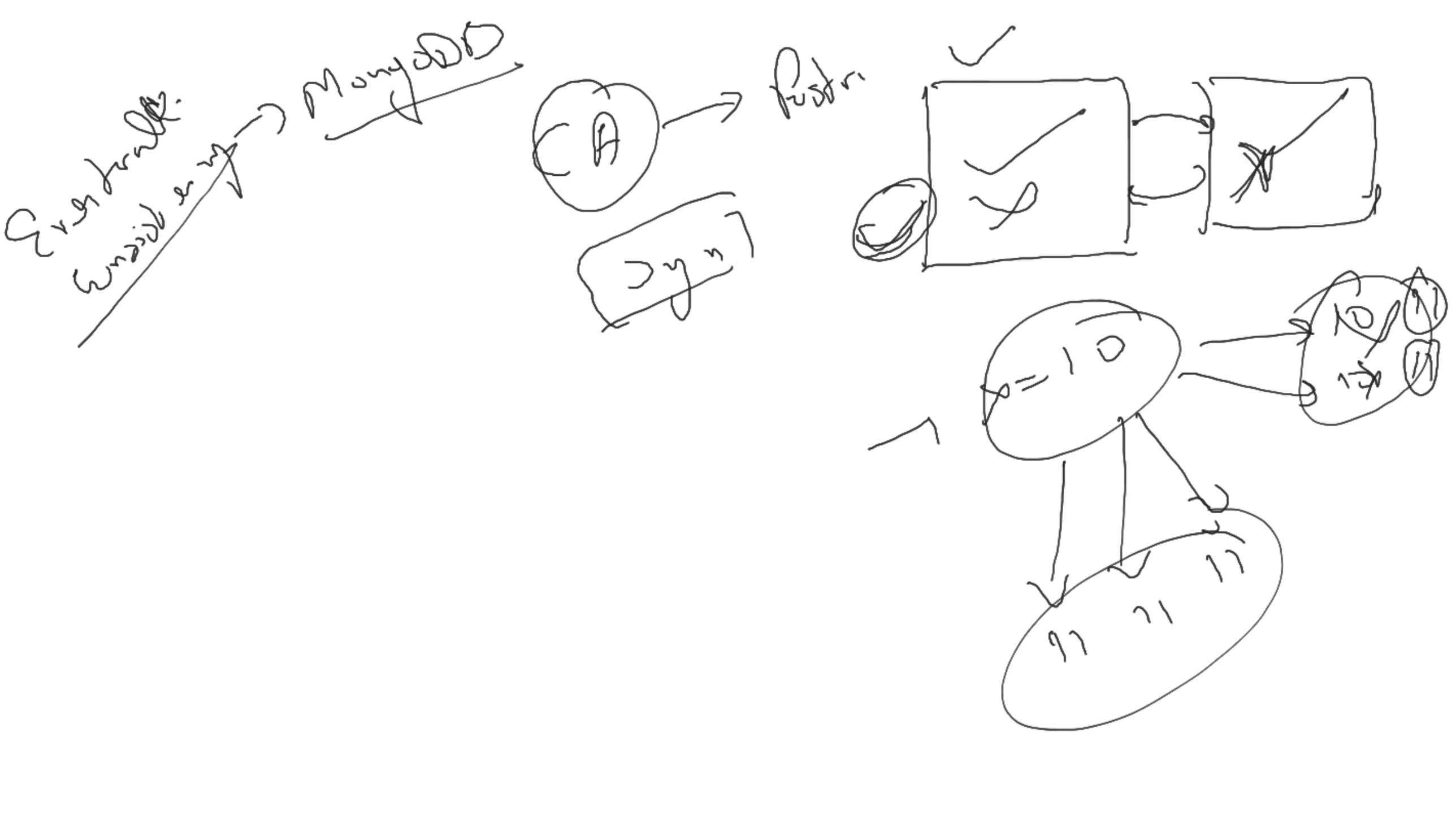


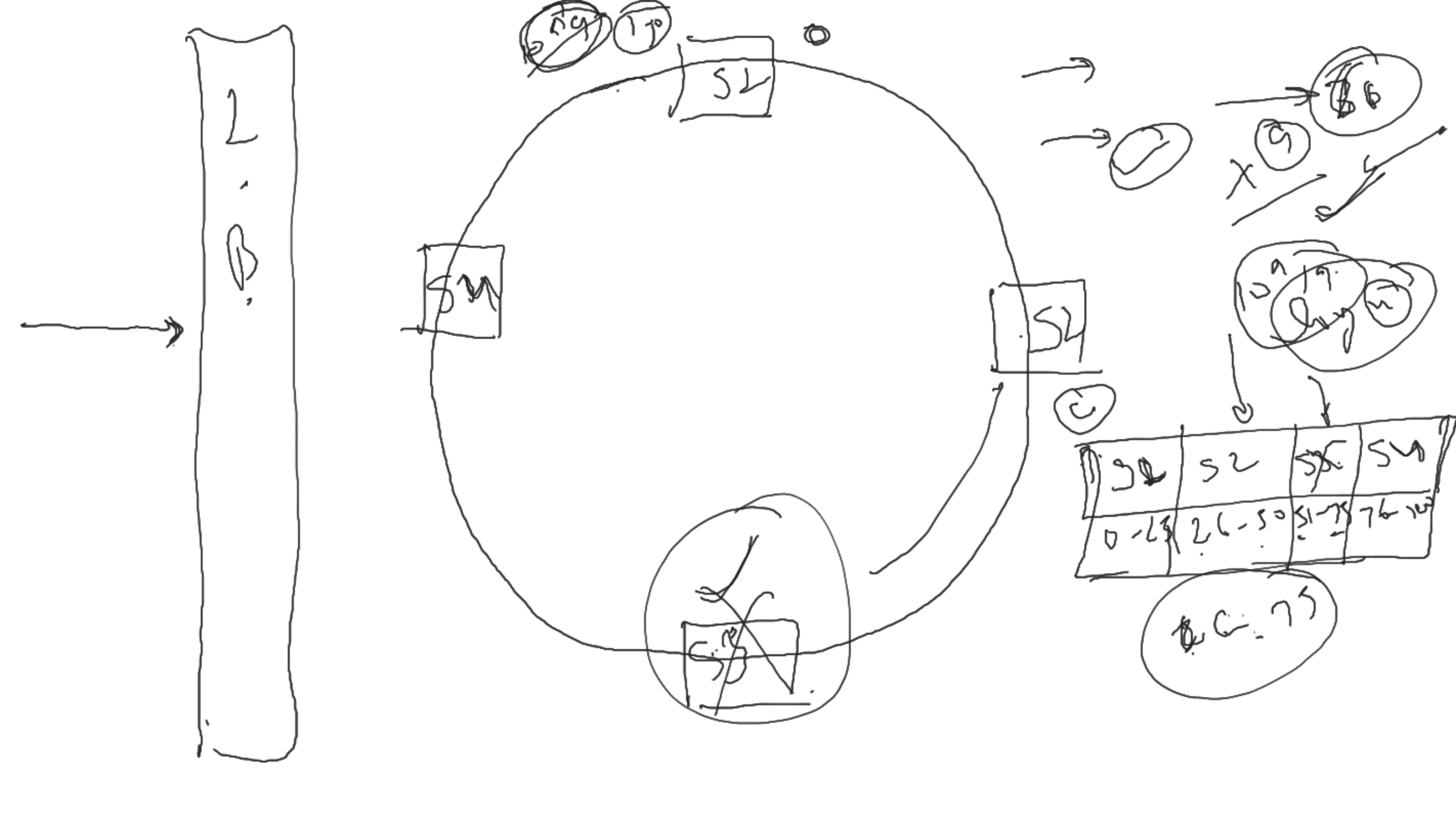


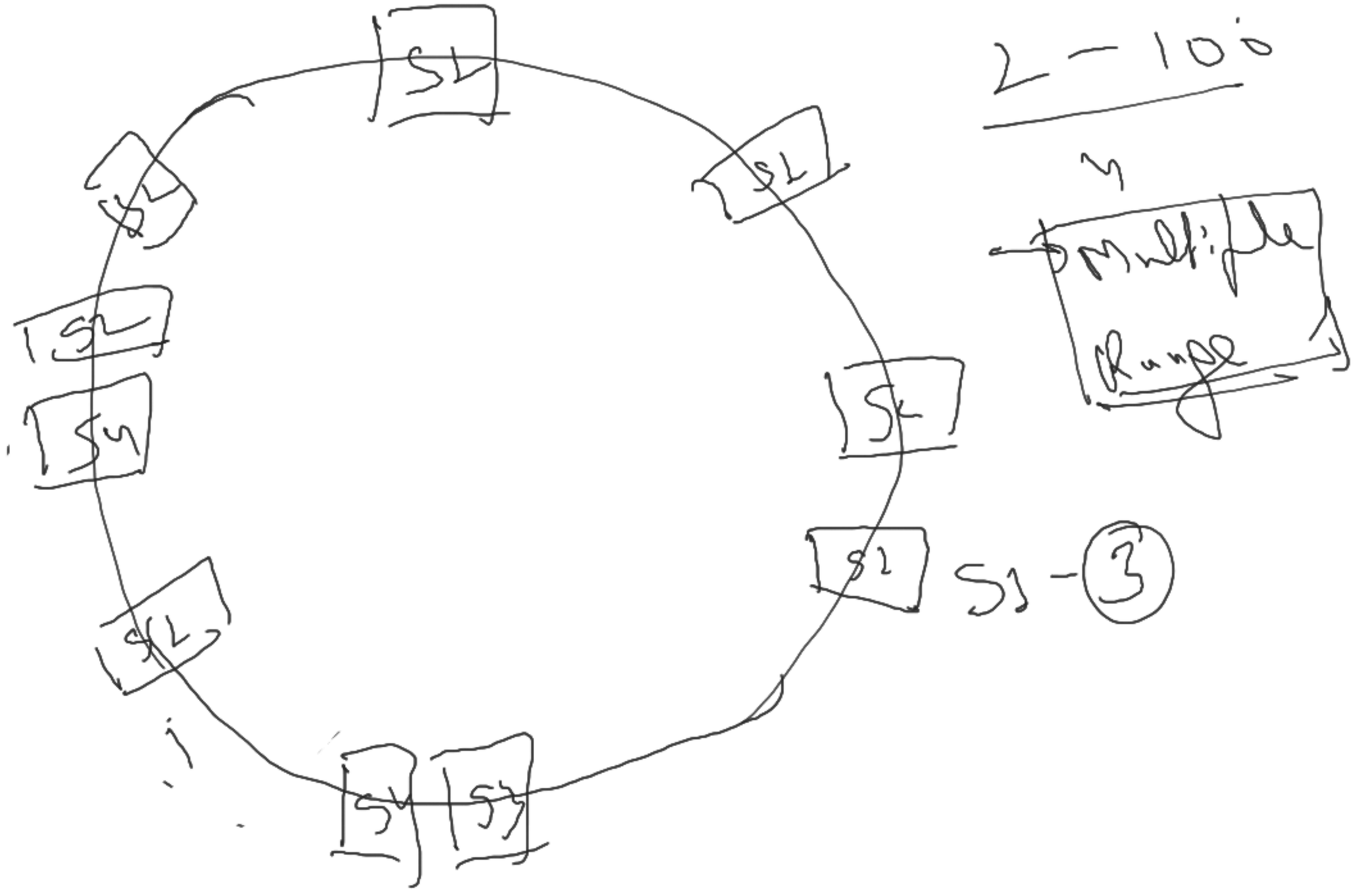
CAP Theorem:

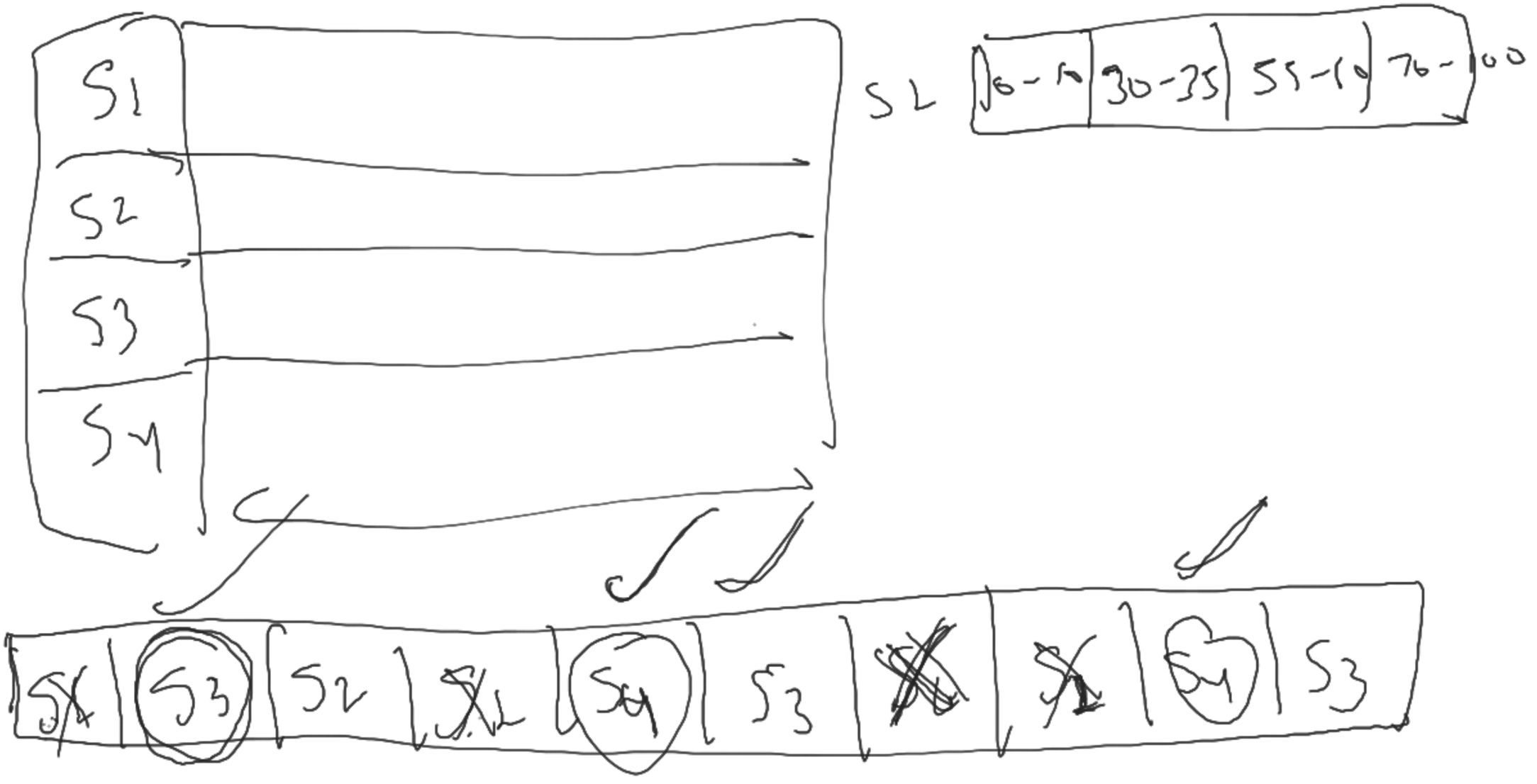
- Consistency
- (2) Availability
- (3) Partition Tolerance

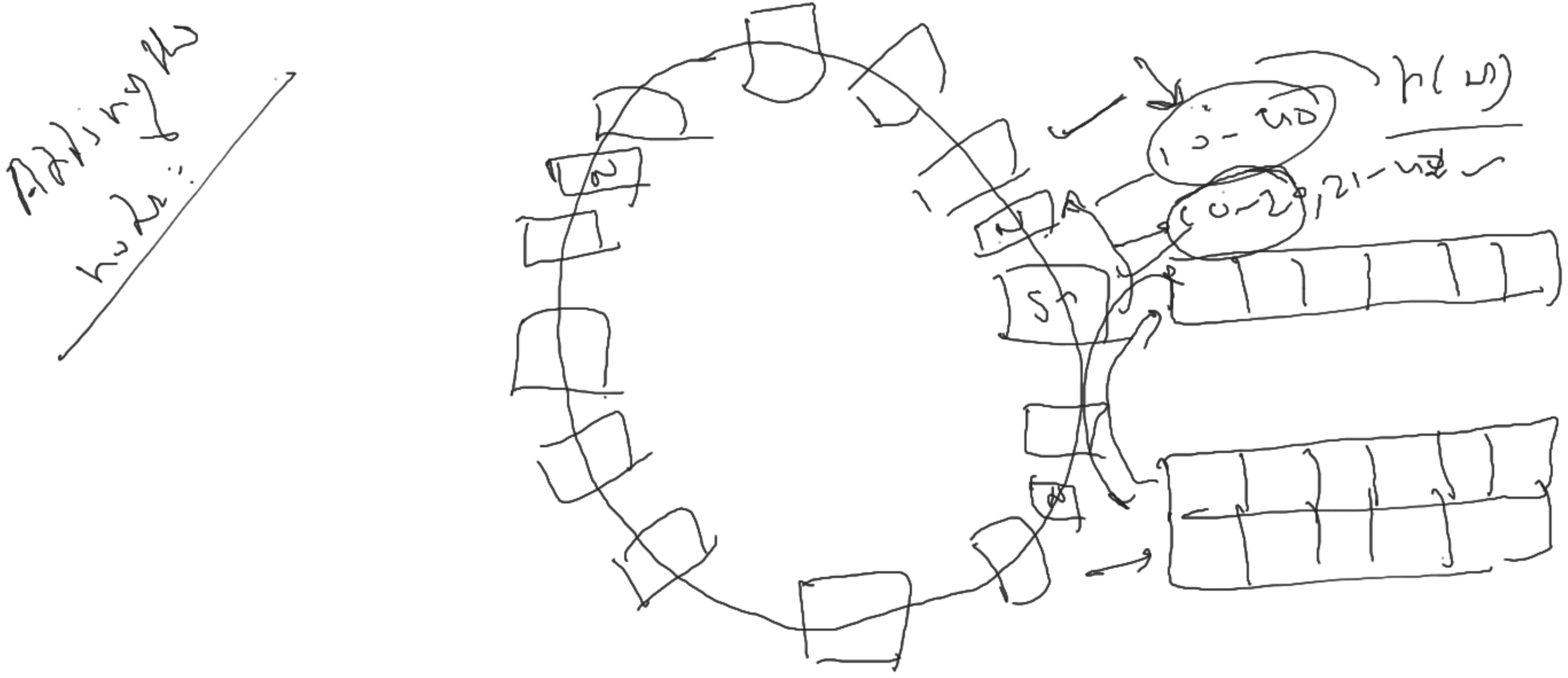


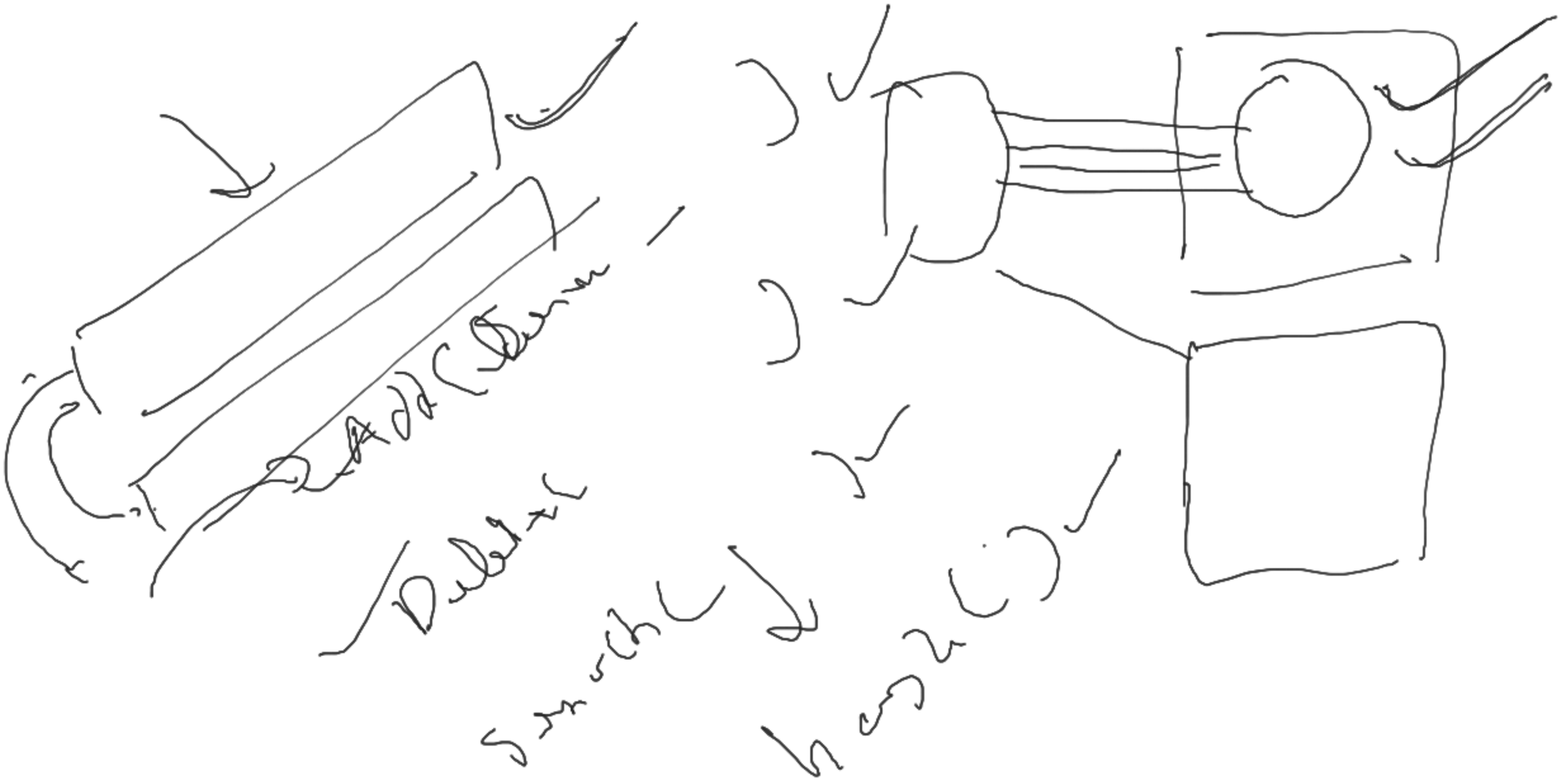


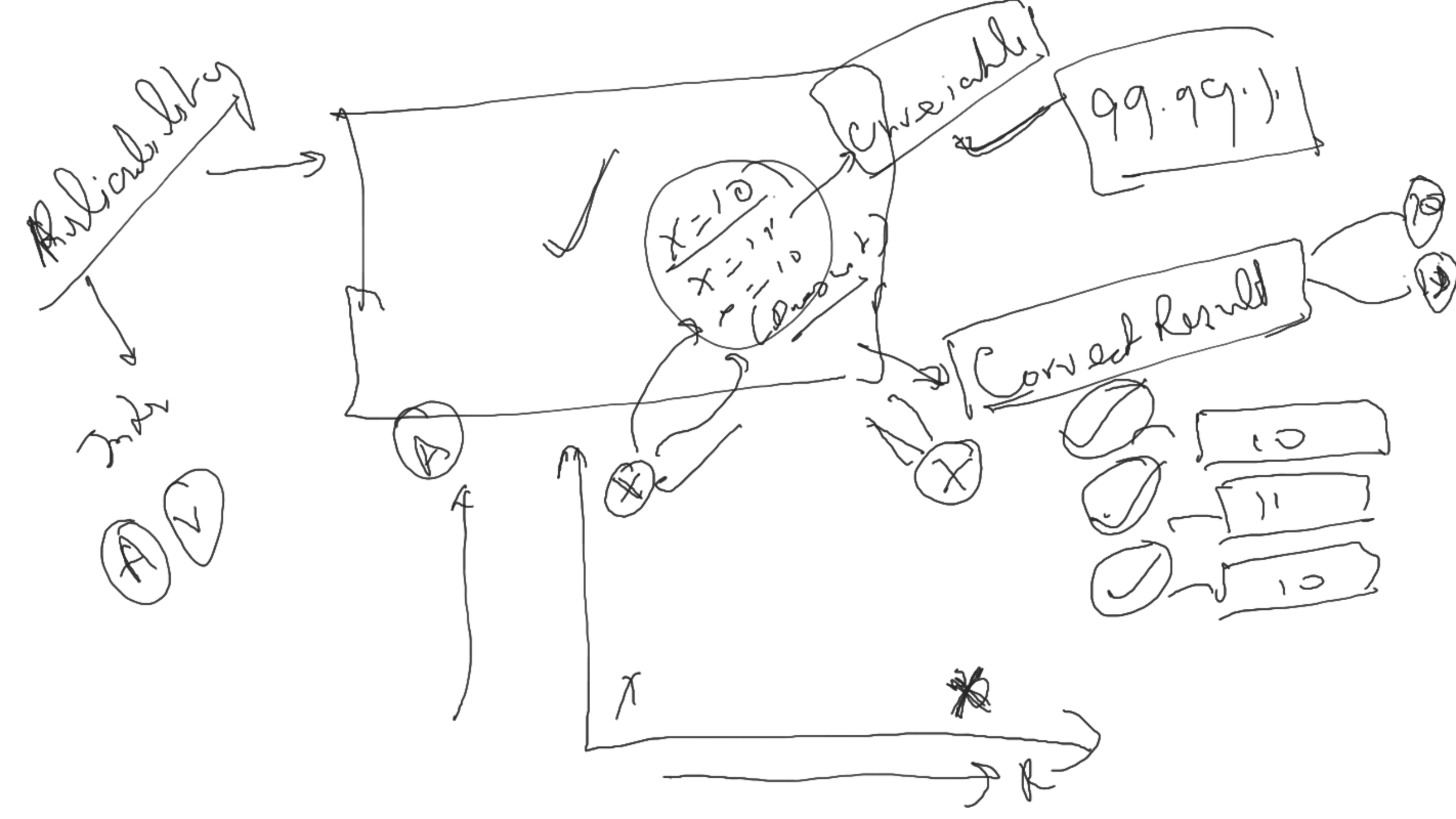


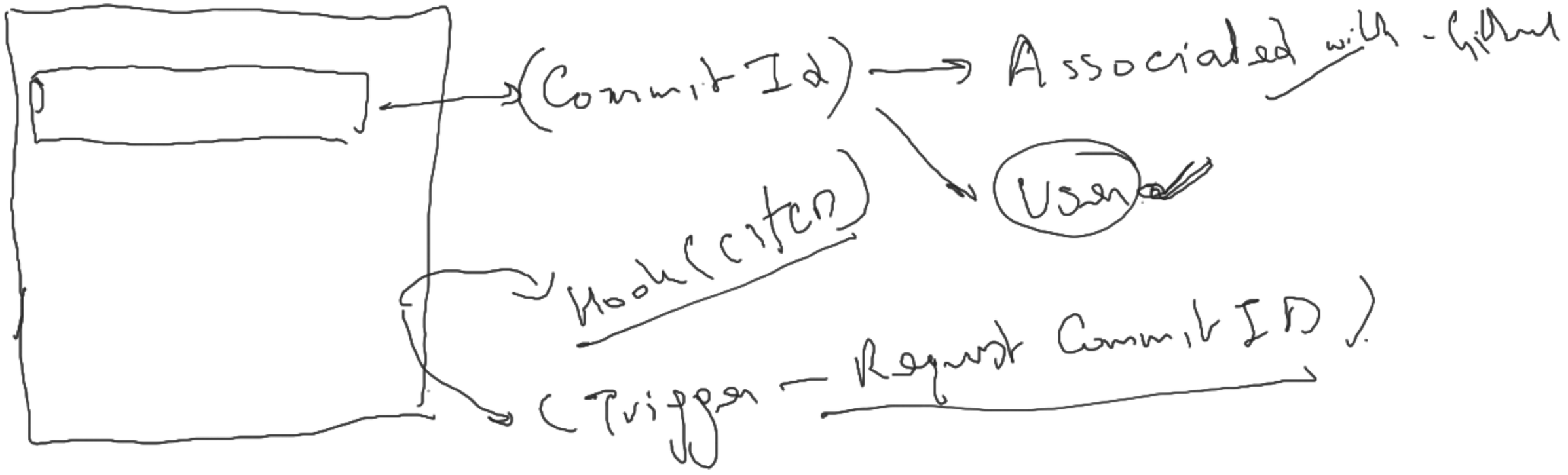

2 - 10
Multiple
Range
S1 - 3

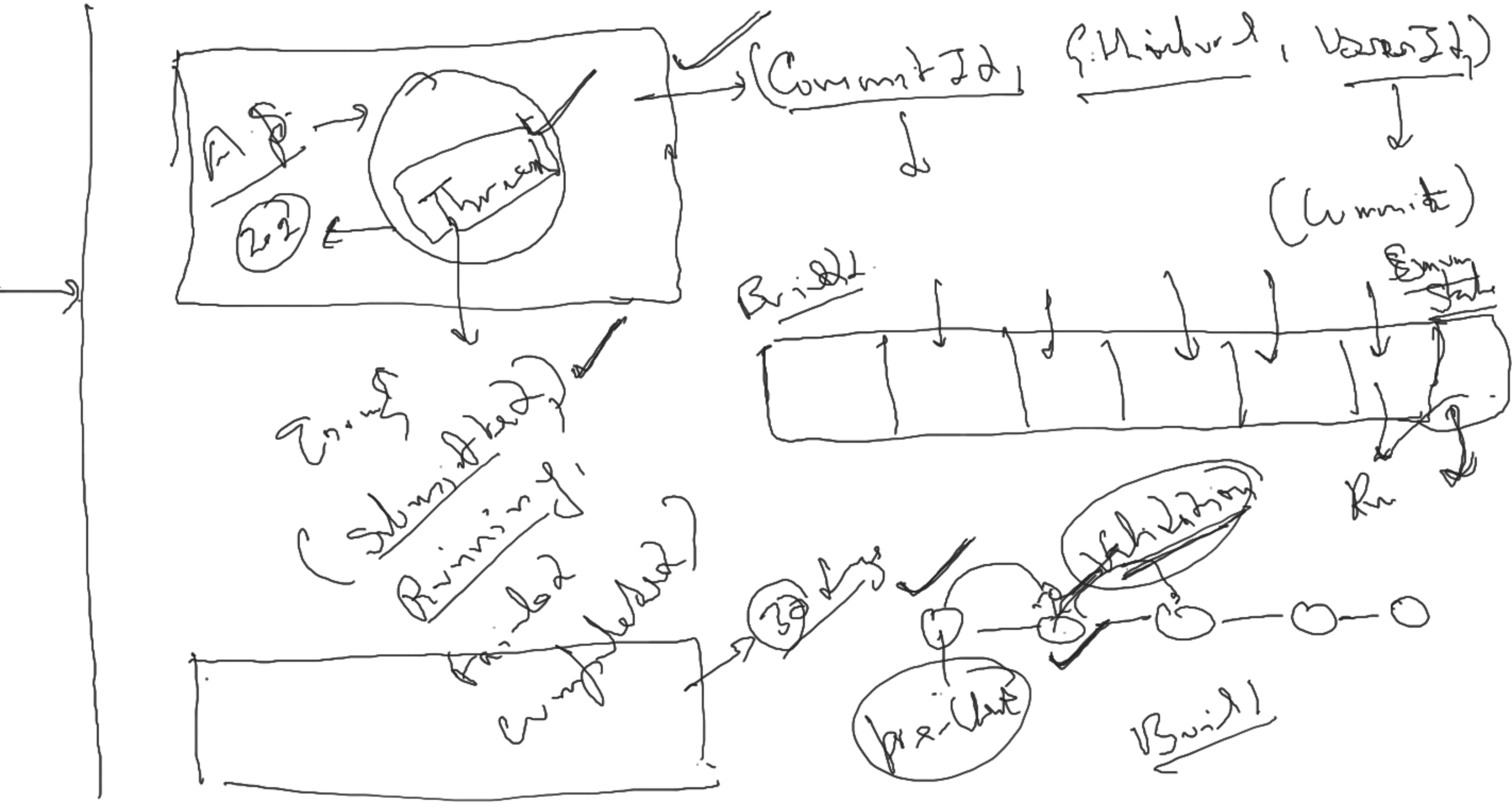

S1
S2
S3
S4
S2
10-10
30-35
55-10
70-100
S1
S3
S2
S1
S4
S3
S1
S4
S3



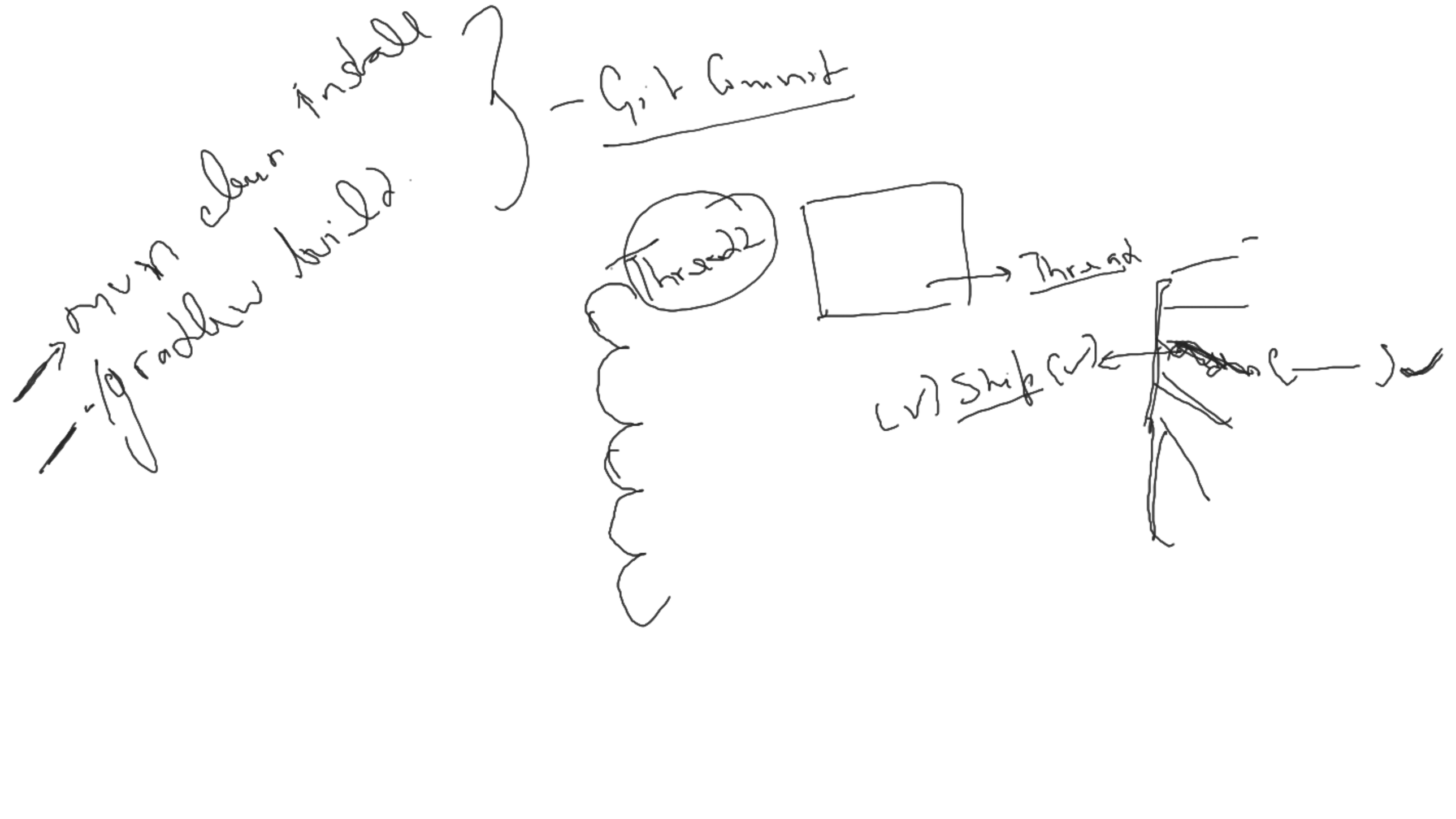


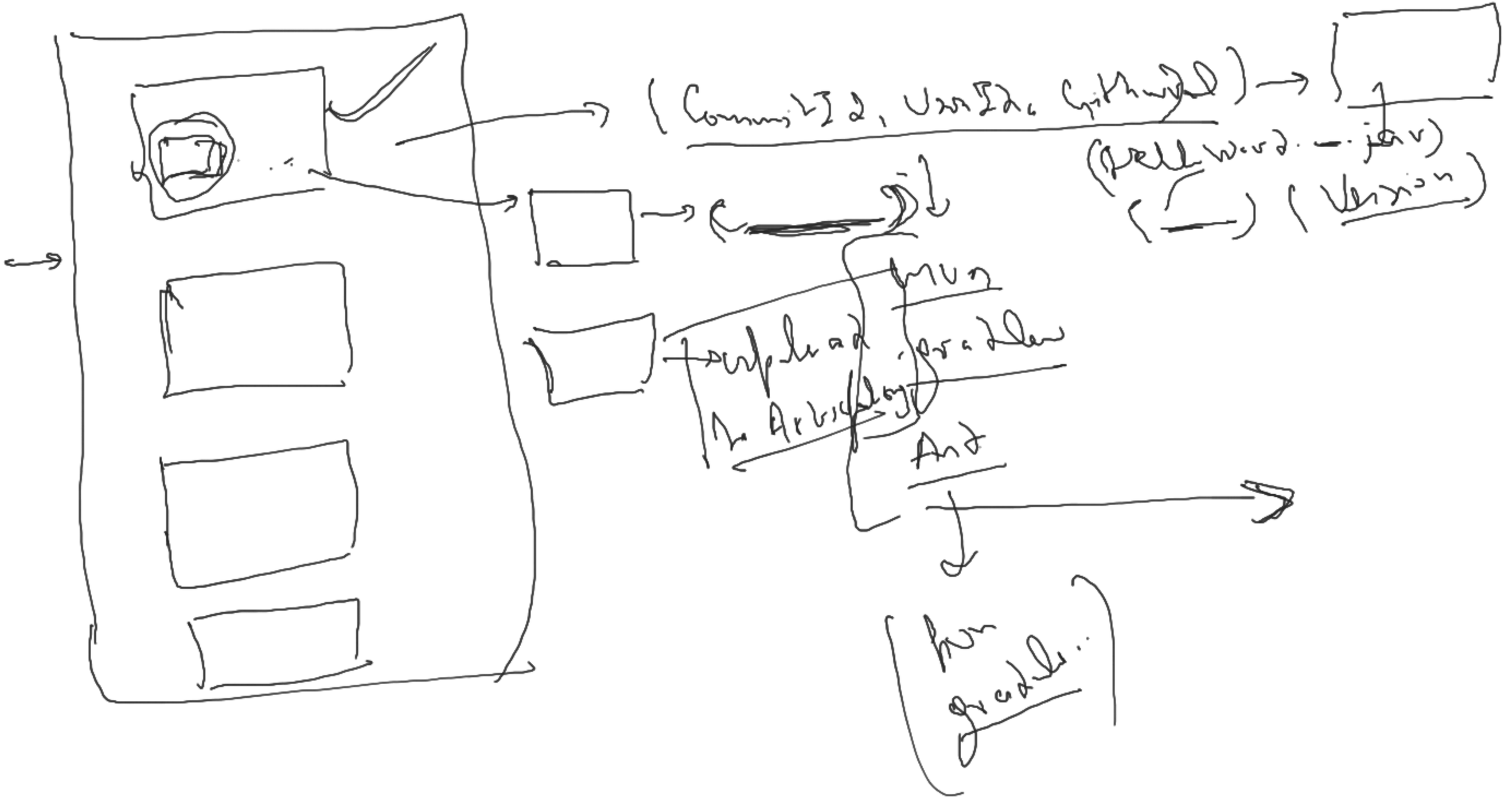

Reliability
Availability
99.99%
Correct Result
10
11
10

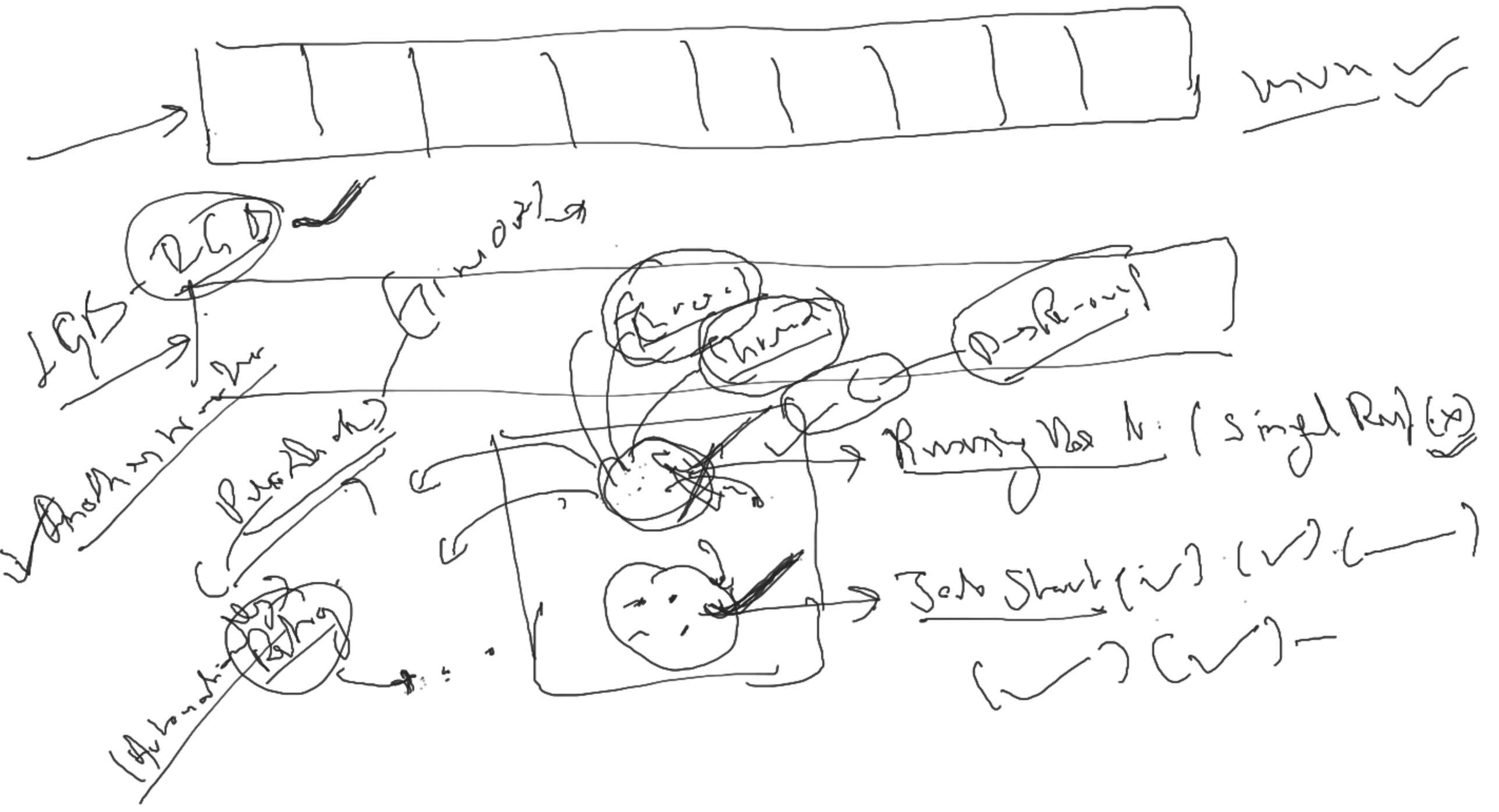

(Commit Id)
Associated with - Github
User
Hook (CI/CD)
(Trigger - Request Commit ID)



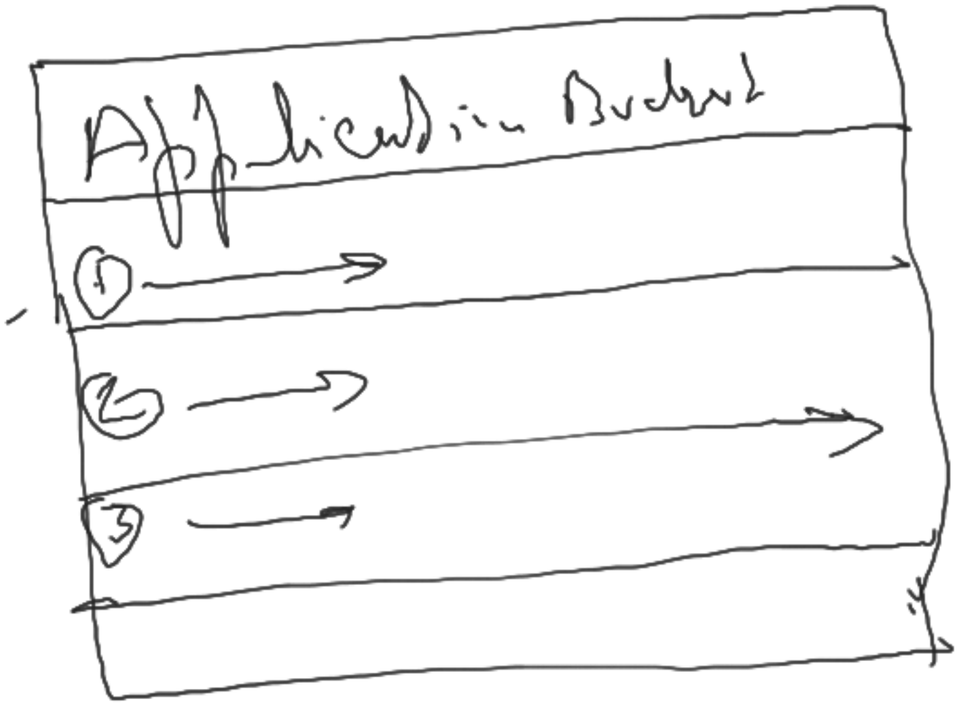
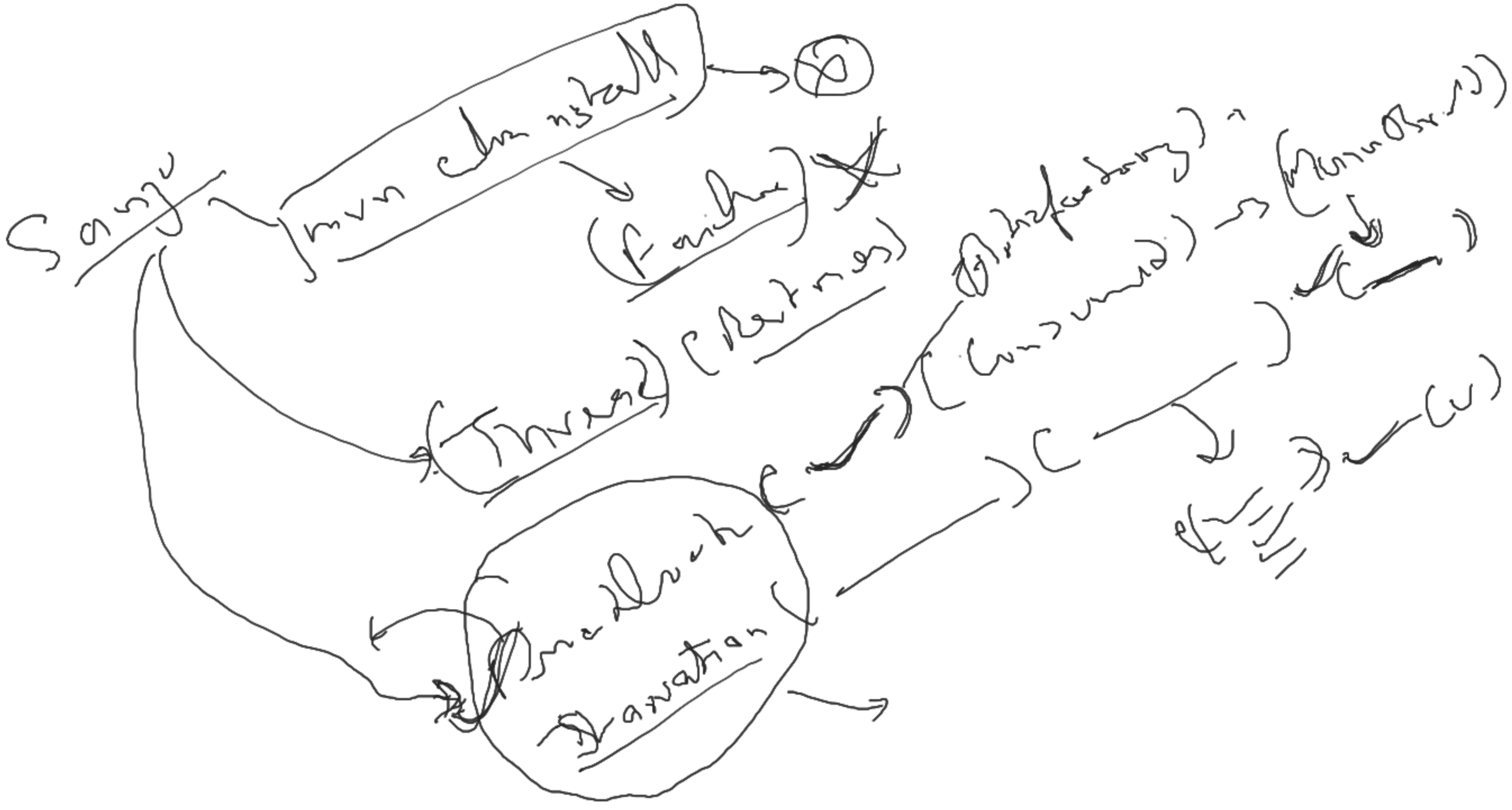
Thread
(Commit Id, Gitthubrel, User Id)
(Commit)
Build
Run
Validation
pre-Check
Build


mvn clean install
gradlew build
Git Commit
Thread
Thread
Thread





High Memory
Low mfg


Application Budget
1
2
3