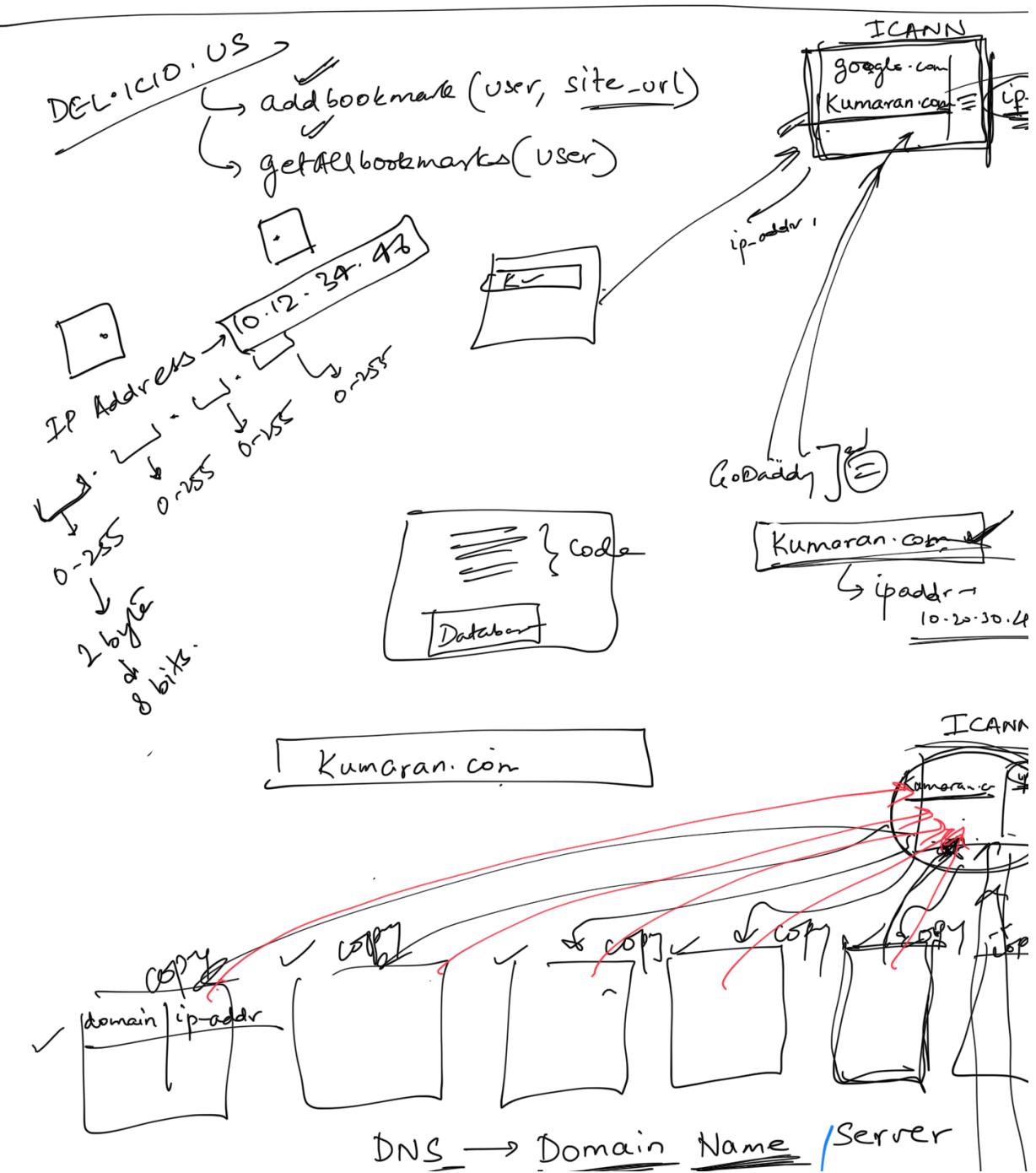


HIGH LEVEL DESIGN - LO1

- ① THIS CLASS WILL BE REPEATED WHEN HLD Module begins
- ② PLEASE LIMIT QUESTIONS TO TOPICS RELATED TO THE CLASS.
- ③ MERGED CLASS DUE TO NAMAN BEING UNAVAILABLE.



DNS

① Who maintains ~~most~~ DNS machines?

Airtel

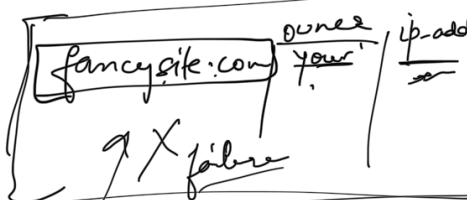
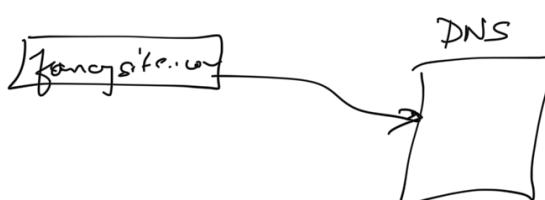
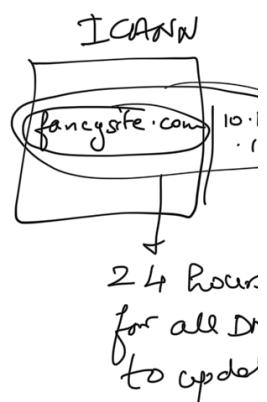
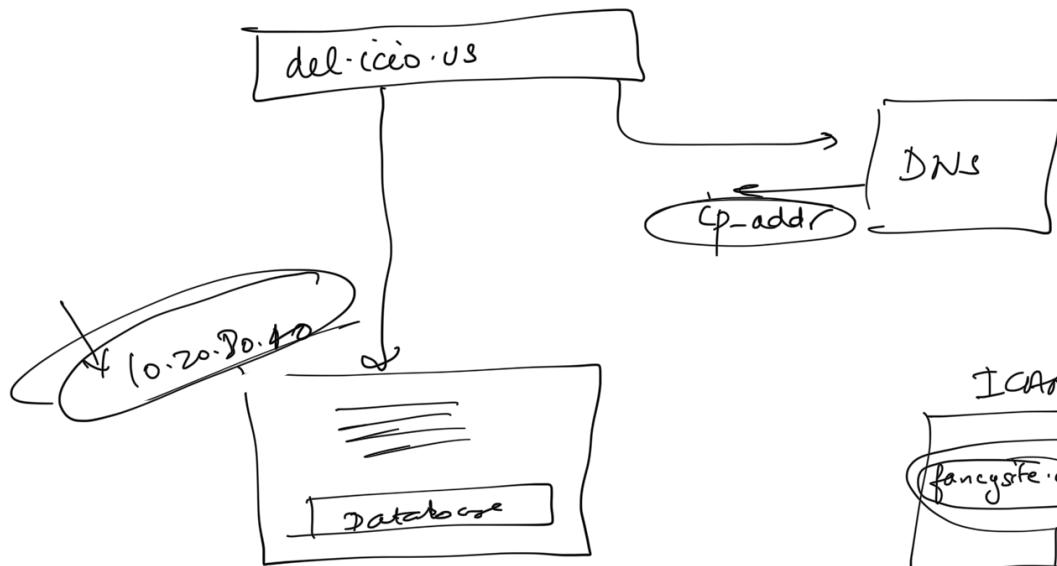


ISPs → DNS

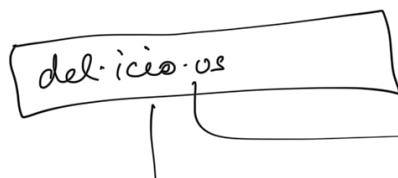
① Google → internet (8.8.8.8, 8.8.4.4)

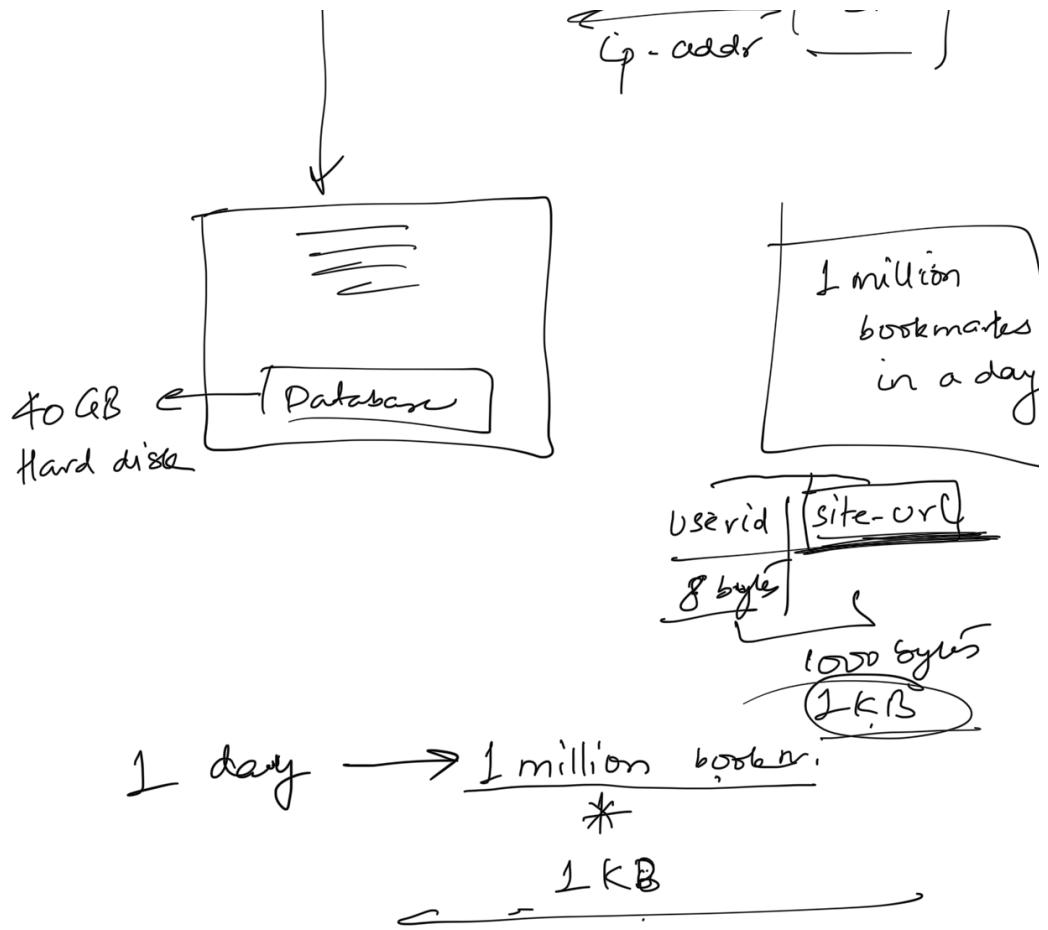
② Cloudflare → DNS

② ~~My~~ machine → DNS machine?



200%



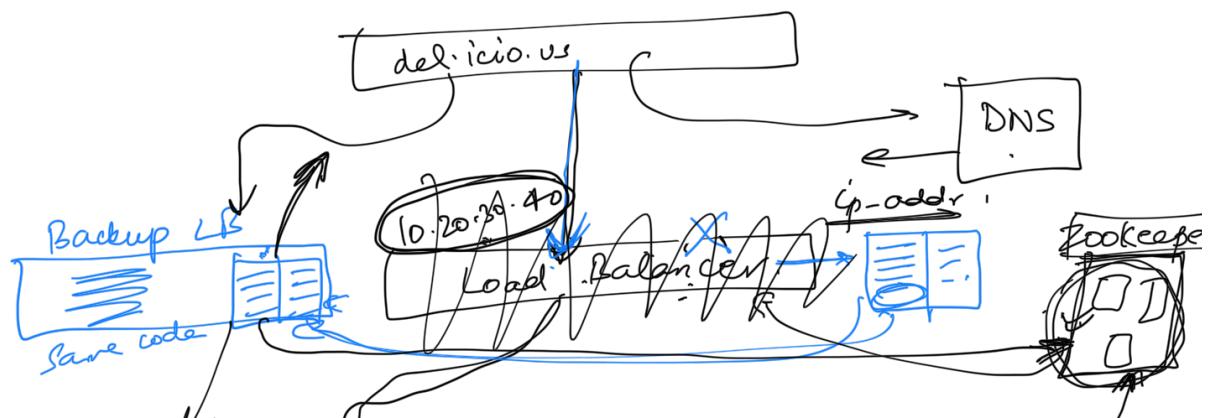


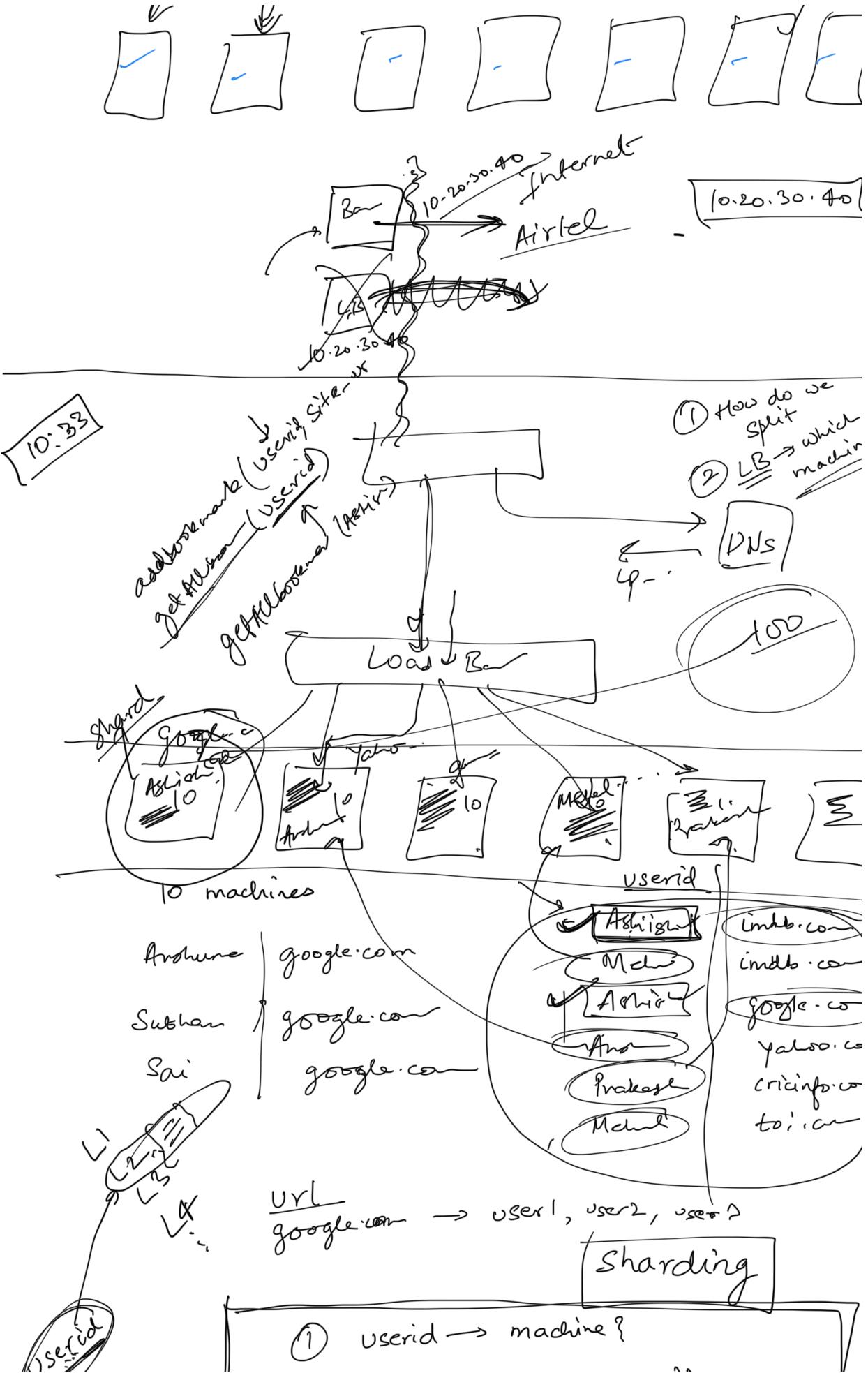
$$\frac{1000 \text{ B}}{\text{GB}} \times 1000 \times 1 \text{ KB} \approx 1 \text{ GB}$$

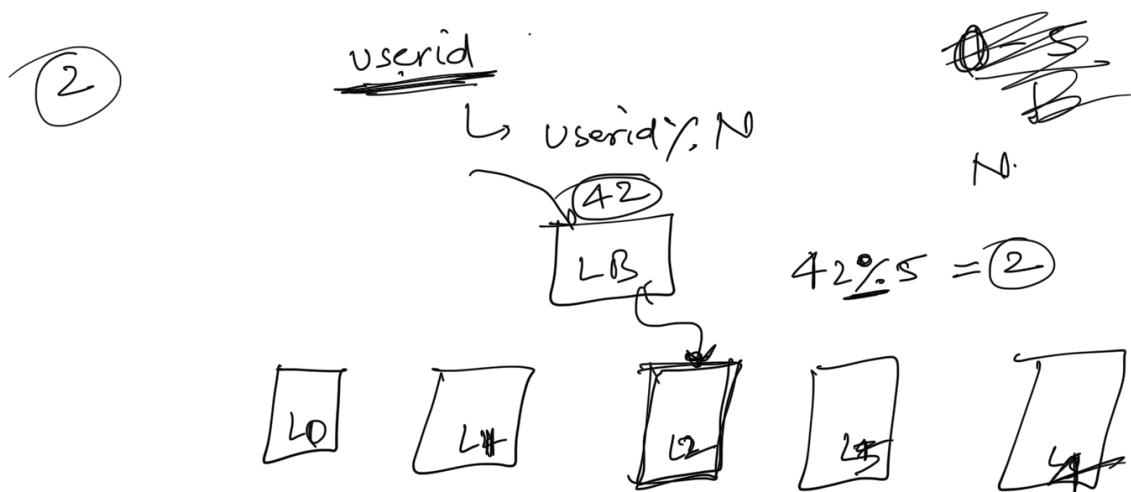
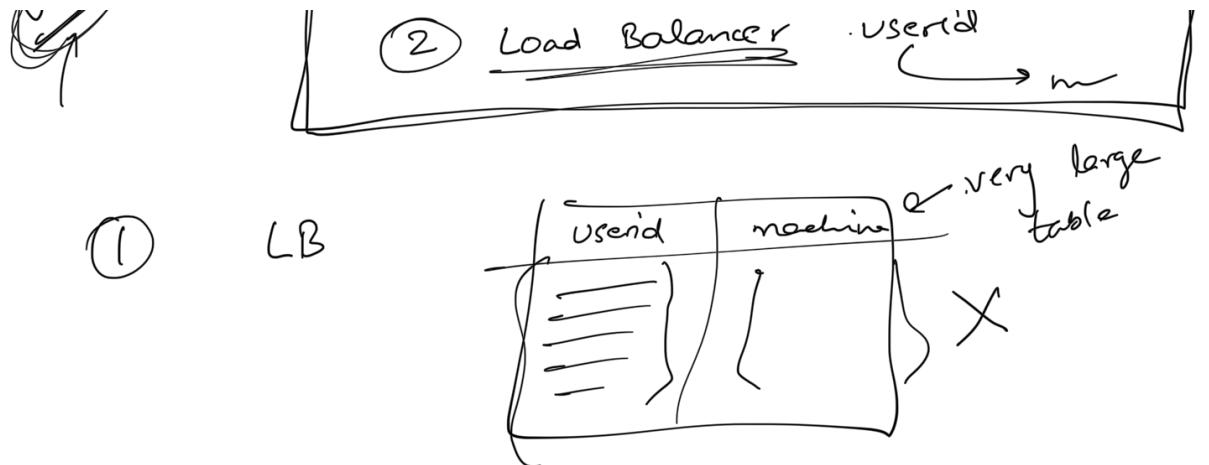
1000 B
GB
ML
 $\approx 1 \text{ GB}$

① Buy a better laptop
100GB → vertical scaling

② Buy more laptops → horizontal scaling





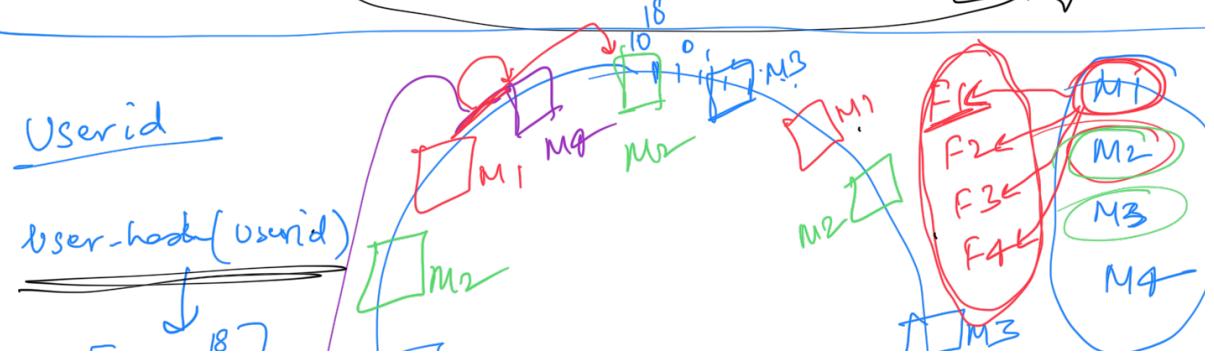
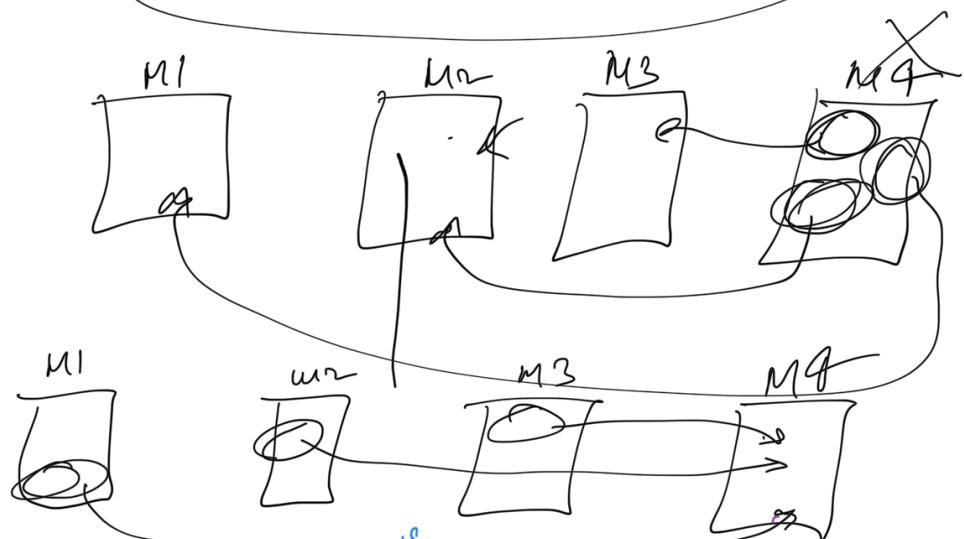
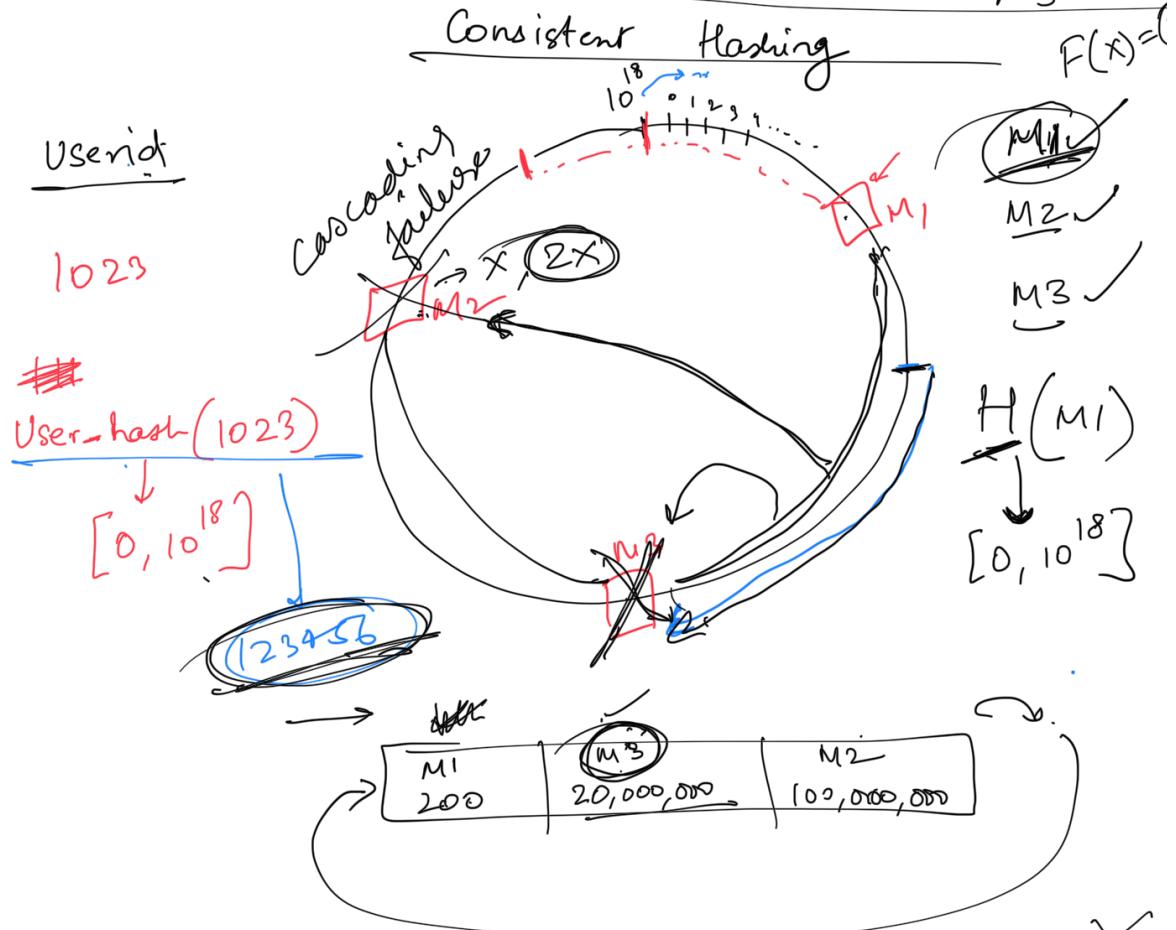
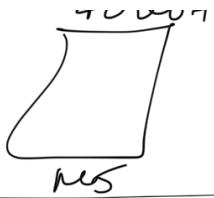


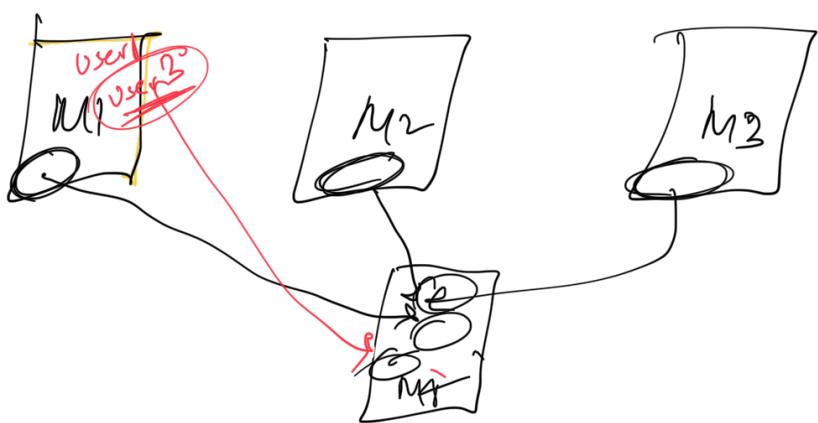
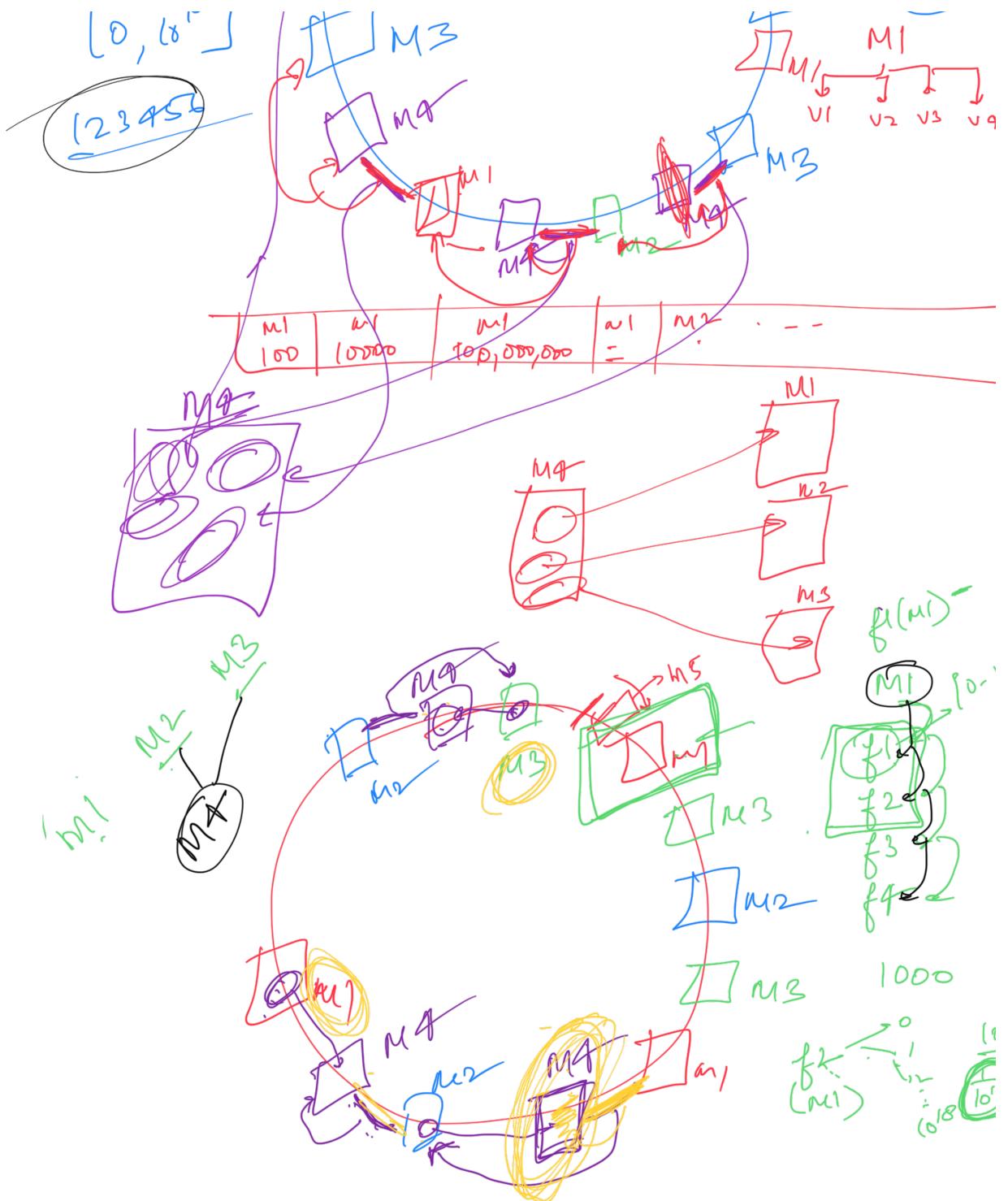
Userid	Userid % 5	Userid % 6
6	1 ✓	0
8	3 ✓	2
11	1 -	5
15	0 -	3
17	2 -	5
19	4 -	1
23	3 -	3

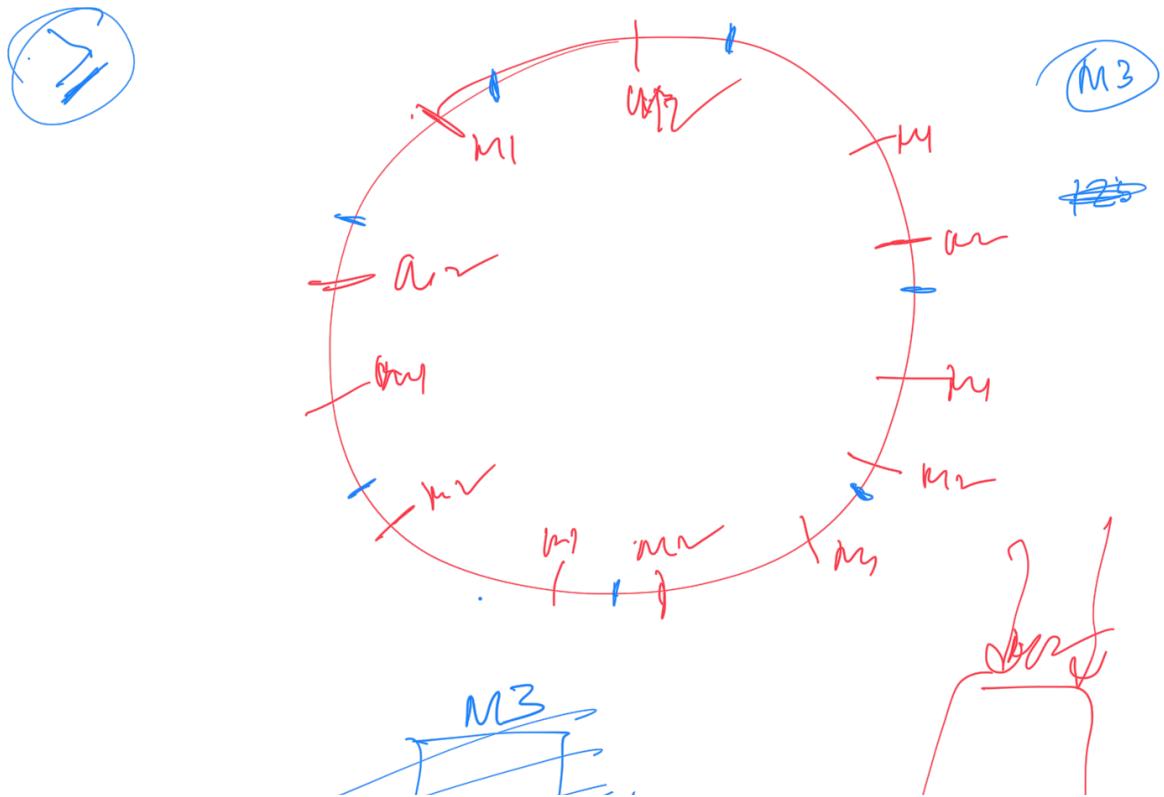
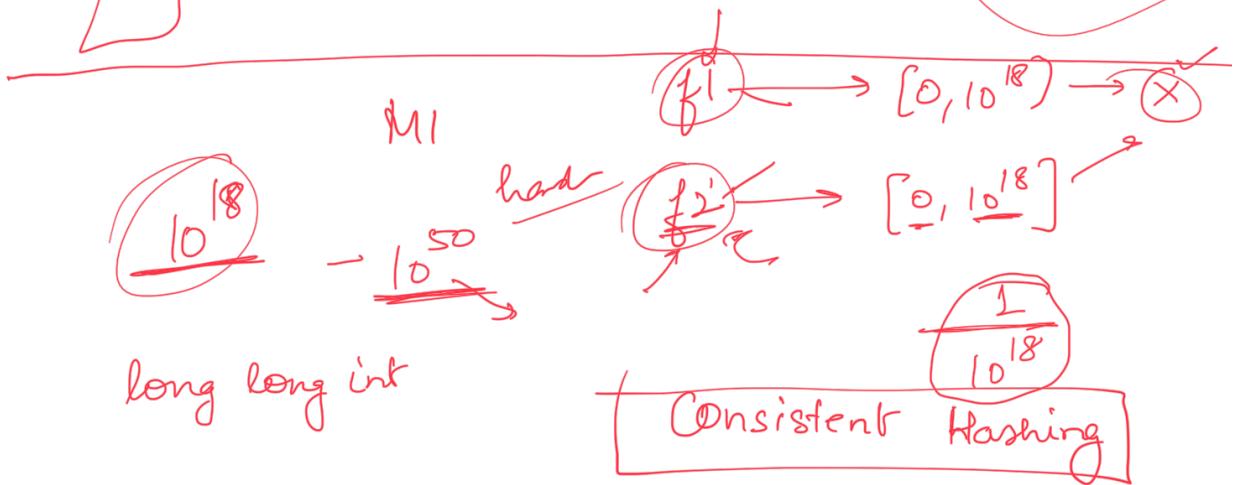
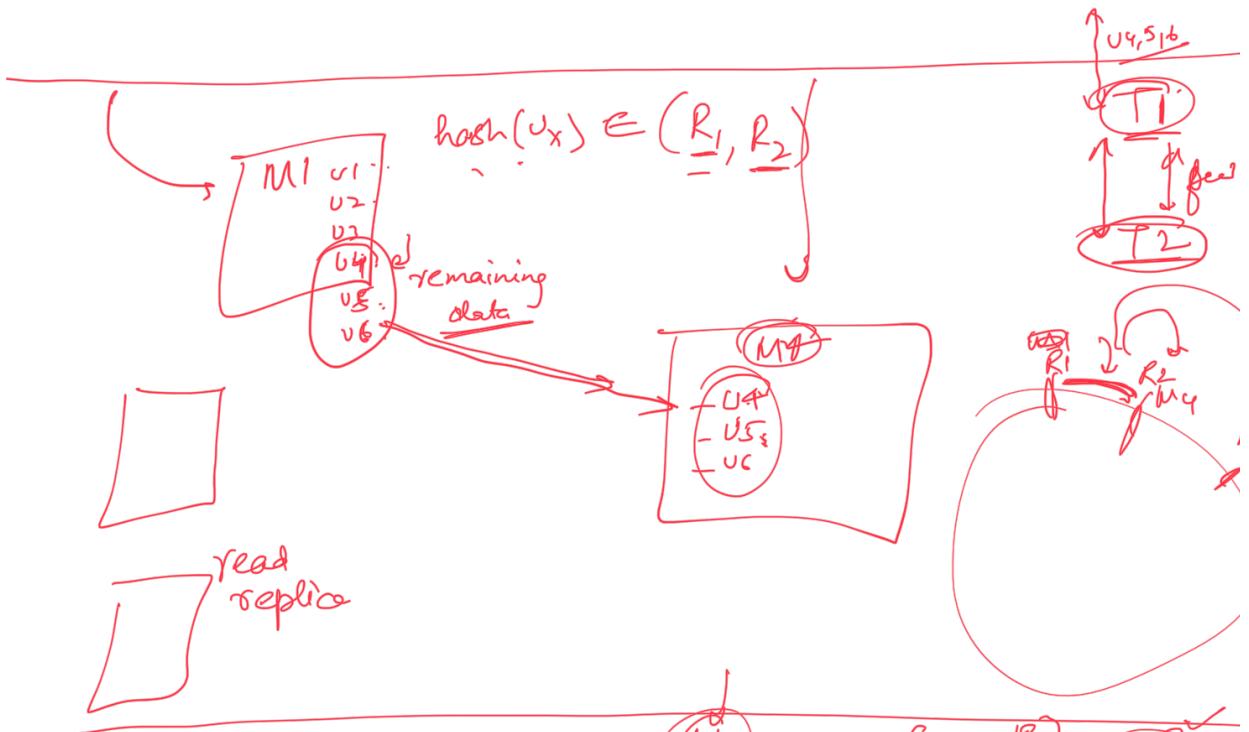
Adding or removing machine
very expensive

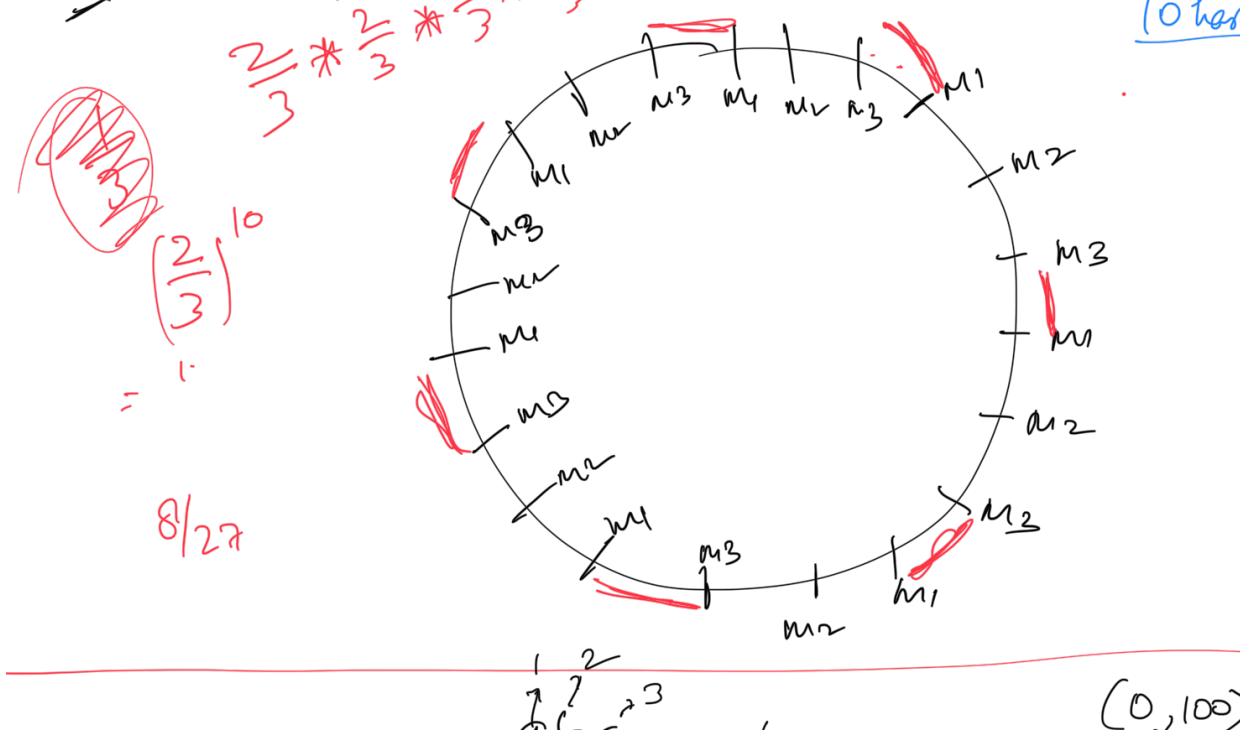
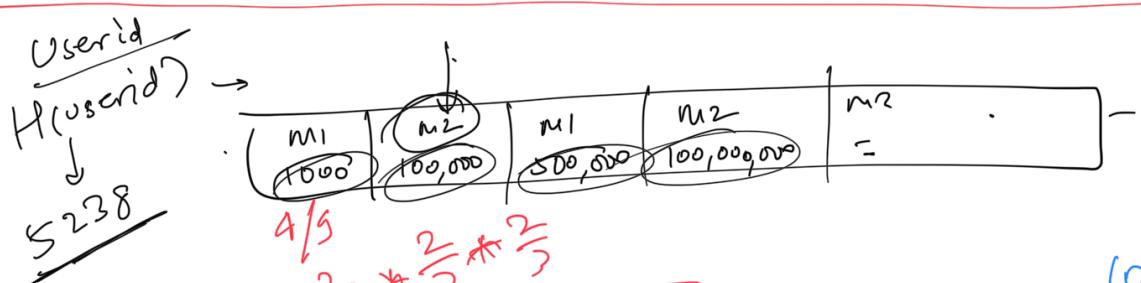
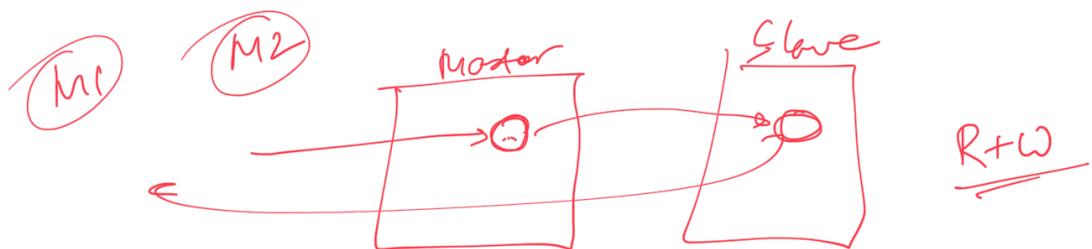
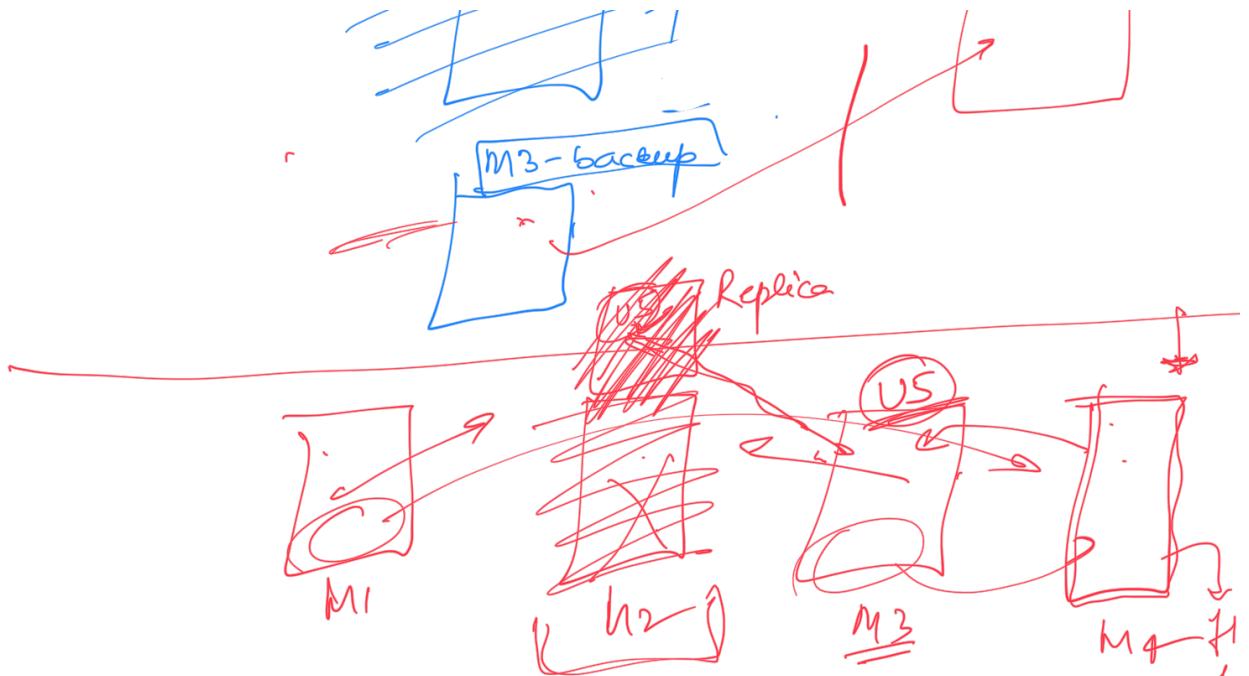


② storage only increases



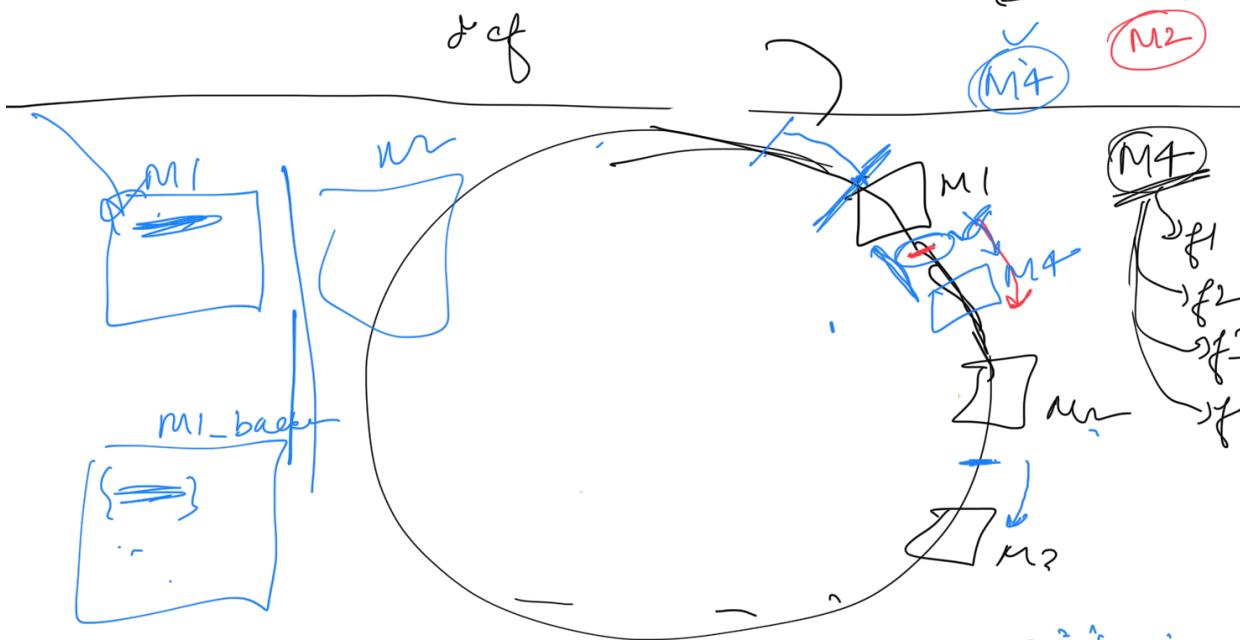






$$\left(\begin{array}{c} 1 \\ 26 \\ 26 \\ 1 \end{array} \right) = (3 \times 1 + 2 \times 26 + 1 \times 26^2) / 1$$

~~10 - 15%~~



Designing data intensive applications.