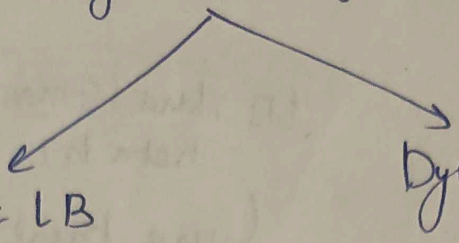
Algorithms of LB

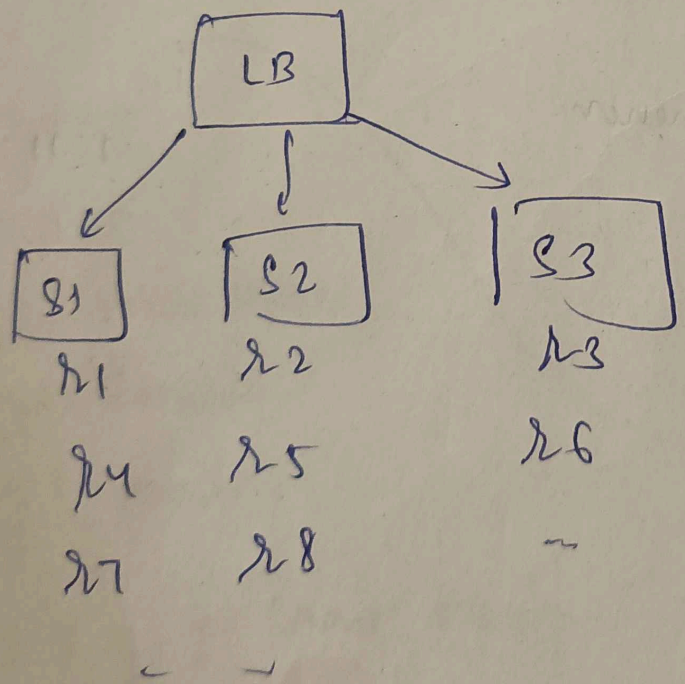


Static LB

(ek fixed algo hoga jisse load distribute karta hoga)

Dynamic LB

Static LB's Algorithms!



Isse server ke condition se koi matlab nhi, ye bas ek algo sanyh, ye hisab se kaam karta h bas.

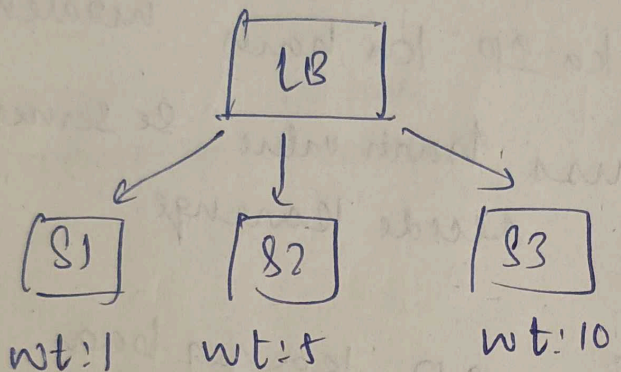
Limitation!

->Do not consider load on any server

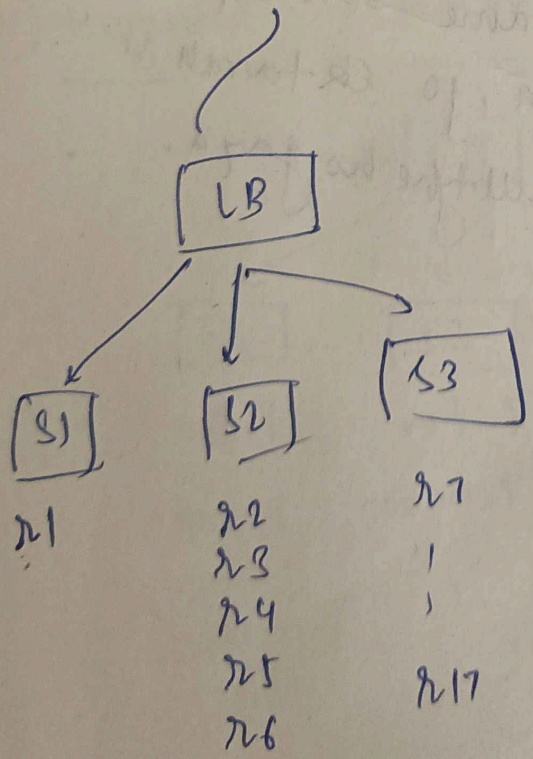
② Weighted Round Robin

→ Yaha LB Servers ko "weights" assign karta h

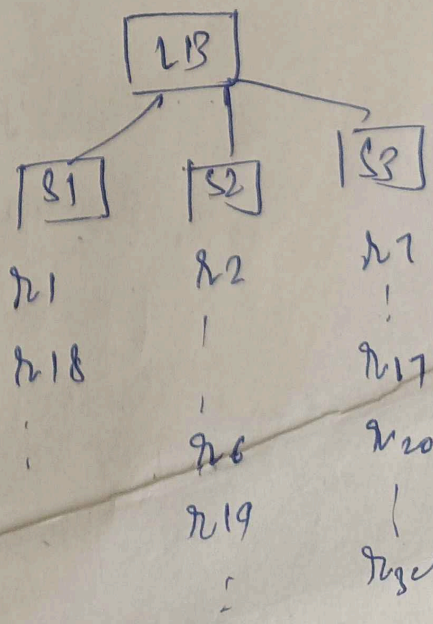
no kisi bhi basis pe ho sakte h,
jaise RAM, processing power, RAM etc.



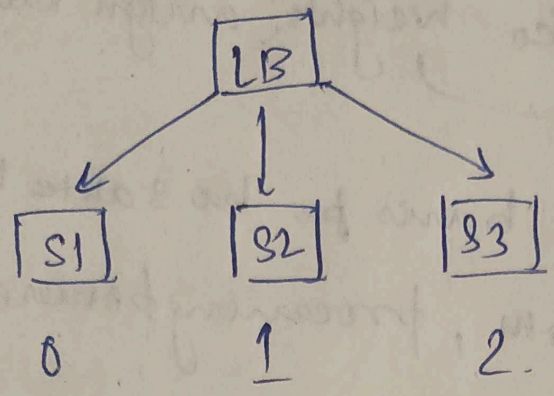
Abhi currently aisa samjho ki wt matlab OR baar ke kitne req handle kar sakta h



=>



③ IP Hashing

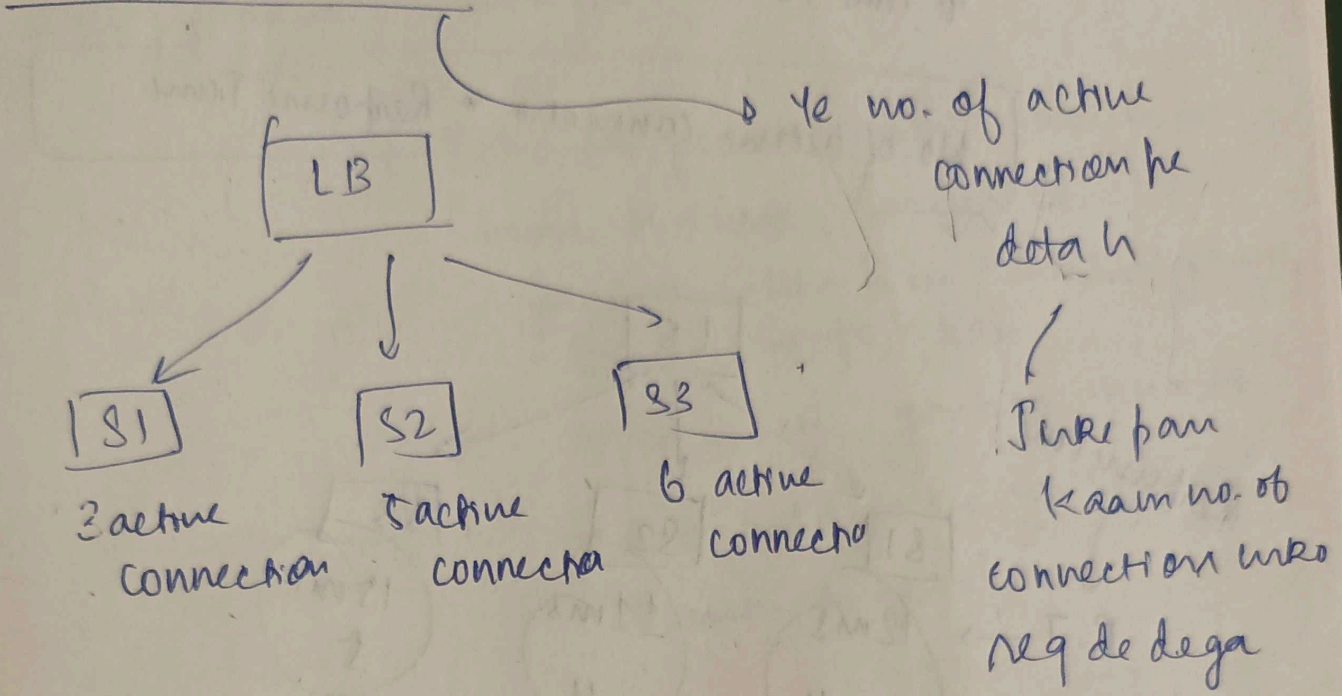


Incoming req ka IP ka hash nikalenge aur uss hash value se server decide karenge.

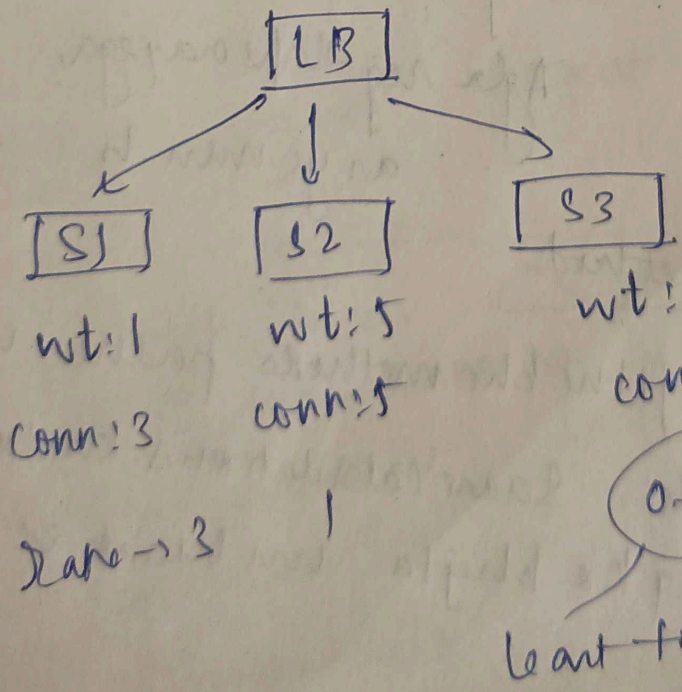
Limitation:- Same IP ka req baar baar same server pe jayega, jo ek tarah se Statefull type ho gaya.

Dynamic LB Algorithm

① Least Connection Response Time



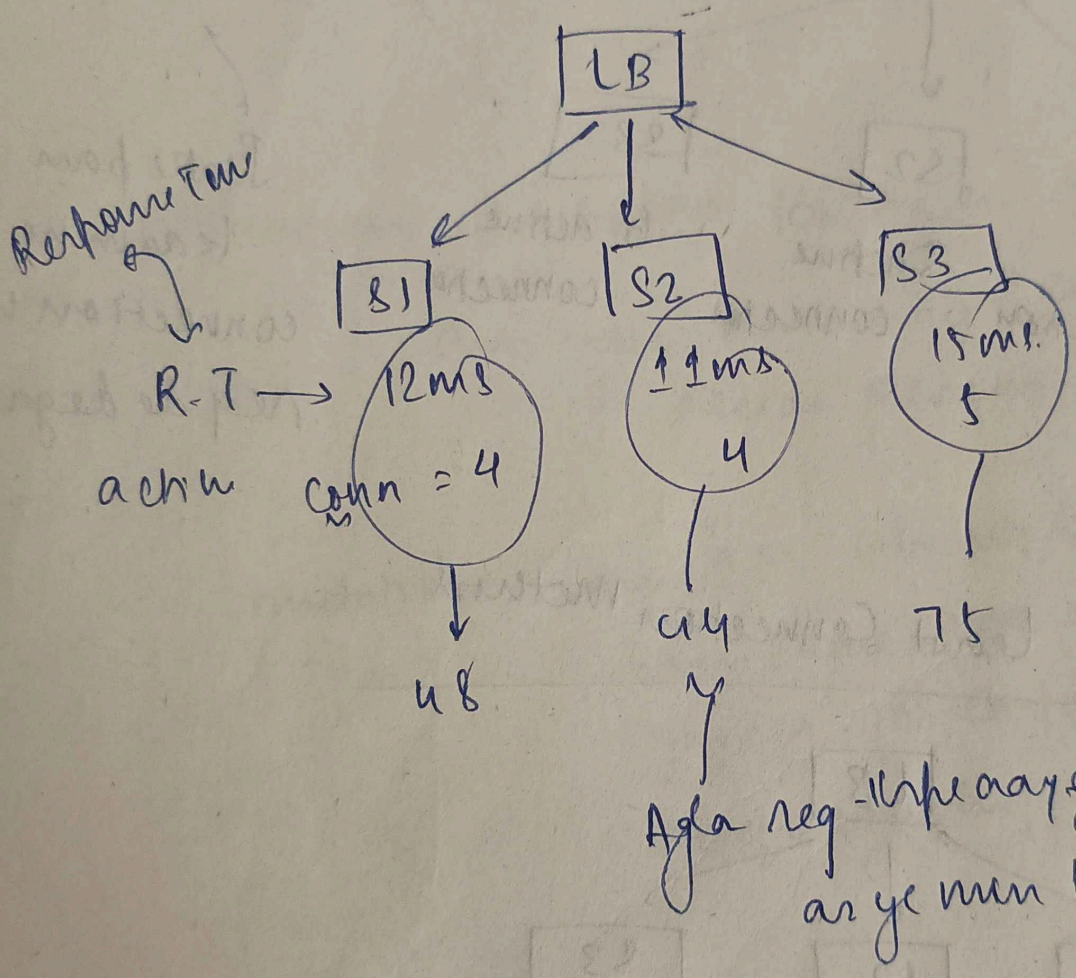
② Weighted Least Connection method



(iii) Least Response Time method

Time to transfer first bit

No. of active connection * Response Time

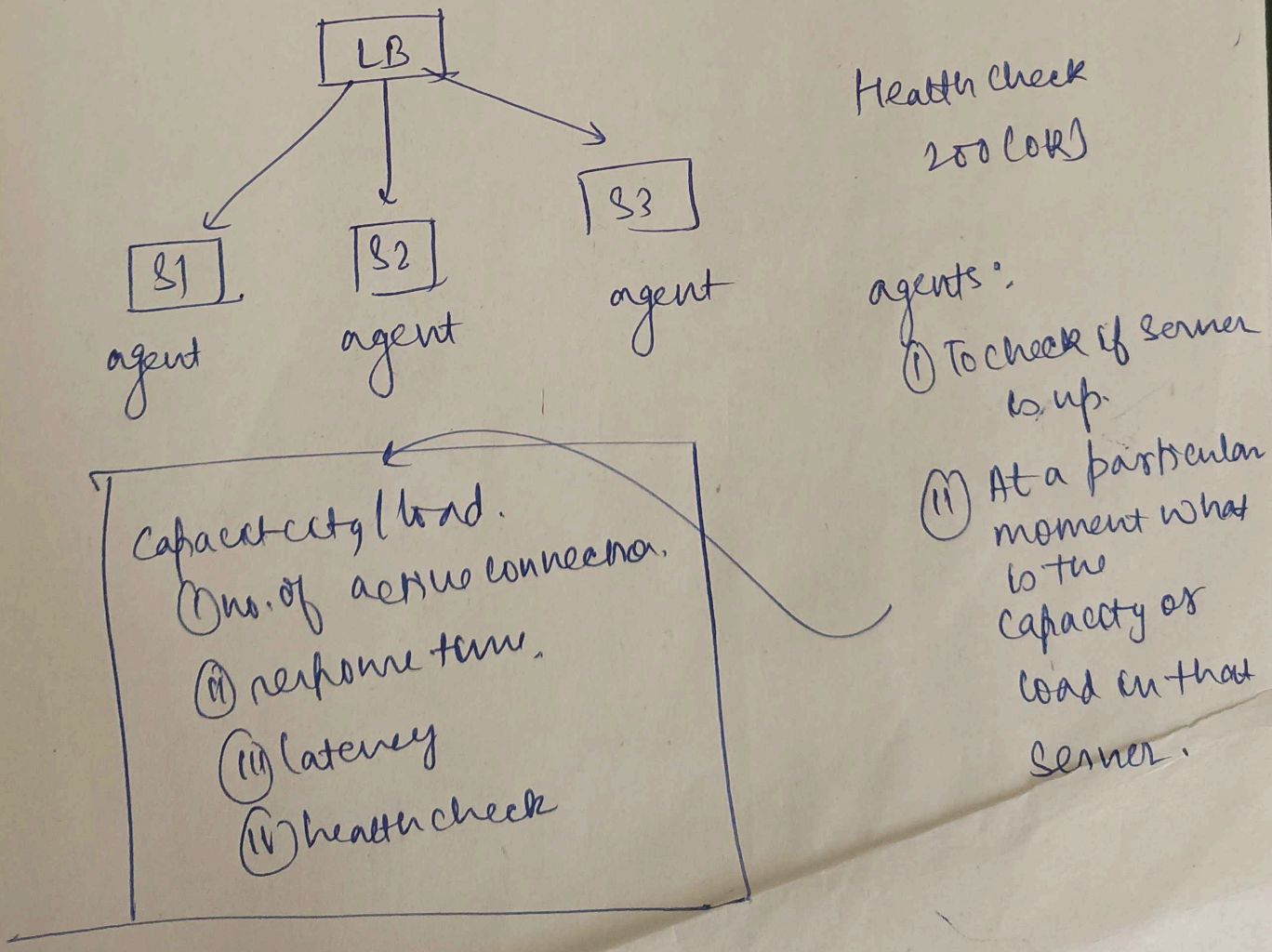


(iv) Resource method

Abhi tak jitne bhi methods padhe usme -
LB hi saare calculations karta aur
req ko bhejta un hisab se.

Ab ye calculation sab LB ke jagah "agent" karega

→ Isko ek piece of code samjh lo time to time server se puchta rehta hai sab shi ja rha, load shi to h sab, agar kuch gadbad hua to LB ko bol dega ki ye server down h abhi.



Load Balancer ke aur type

(i) Application level LB (Http/Https)

(ii) Network layer LB (Ip address)

(iii) Global servers load Balancing (Data Center)

(iv) DNS load balancer