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* Load balancer - (Distribute load to servers)

* Algorithms used for load balancer-
1) Round robin
2) Least count policy.

Aws → Elastic Load Balancer (ELB)

Health check - check if server is working or not, then take according actions.

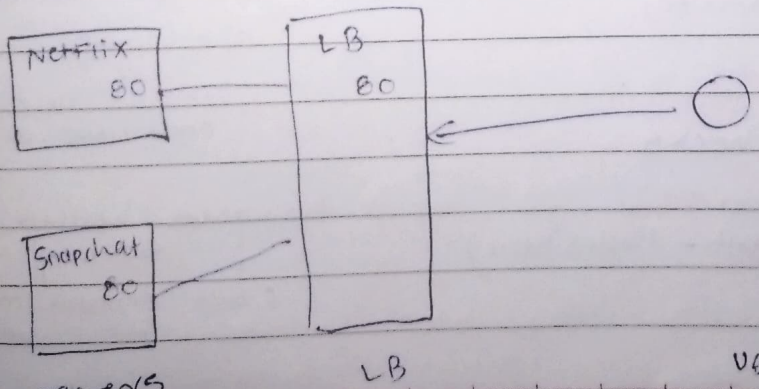
e.g. 2 servers
↓
out of 2, ~~one~~ 2nd is not working
↓
Traffic will be send to 1st server by checking health check.

-Using loadbalancer we can acheive loose coupling or decoupled architecture.

Types of ELB -
1) classic load balancer. (Layer 4)
2) Applicatn —"— (Layer 7)
3) Gateway —"— (Layer 4)
4) NLW —"— (Layer 4)

} for more refer canvas

practical -



/var/www/html/index.html = /index.html.

/var/www/aws/html/index.html = aws/index.html

Two

1) EC2 instance launch (allow ssh, http). (snapchat & Netflix).

2) Connect with server using putty (Netflix)
- sudo yum install httpd wget -y

- cd /var/www/html/
- sudo wget (Netflix link)
- sudo systemctl start httpd
- ——— 11 ——— enable httpd

3) Follow step 2 for 2nd (snapchat)

4) Go to Load balancing → Load balancers → creat te LB → classic LB (create) → Give LB name (lower case only).

→ scheme (Internet-facing) → N/w mapping (Default VPC) → mapping (select all AZs)

→ Security grps (create new SG) → Give name → inbound rule (add rule, allow http, anywhere)

→ select SG which we created

→ Listners & routing (HTTP, port 80)

→ Health checks (HTTP, port 80, ping path - /index.html) → Advance health check setting (set minimum for practical)

→ Review ← Tags ← Attributes (Enable cross zone LB & connection draining, 300sec) ← select both instances

→ Create LB

we can't do routing using path in classic LB.

Appⁿ LB → Path Based LB.

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copy DNS link → open in incognito mode (CLB).

Select → LB

* pwd /var/www/html

sudo mkdir netflix

cd netflix/

sudo vi index.html

(add content & save).

DNS link/netflix → content will shown

* Application LB –

* Target group → create target grp → select instances

Target grp name (Homepage) ← Protocol:port (http:80) ← IP address type (IPV4) ← VPC (Default)

↳ protocol version (HTTP1) → Health checks (HTTP, index.html) → Adv. Health check setting (Traffic port)

Healthy, unhealthy & other values keep minimum

success code (200) ← Next ← Register targets (select both instances) ← create Target grp

80, include pending below

create 3 target grp for Netflix/snapchat, (Home, index.html)

netflix, snapchat:

/netflix/index.html | /snapchat/index.html

WAF → used to avoid malicious dam

creat load balancer → Appln LB → LB name

Internet facing ← IP addr. Type (IPV4) ← N/w mapping (select all AZ's)

select SG which is created

→ listener & routing (HTTP, 80, Homepage) → creat LB.
protocol port Default

copy DNS name → Incognito → website will be visible.

Listeners & rules → manage rules → Add rule

Give Name ← Next ← Add condit^n (path) /netflix/ → confirm

Action types ← forward to target grp

TG (Snapchat) → priority (1)

Delete → 1) LB
2) TG
3) EC2 instances

Mini project -
- create highly available architecture such that home page - Amazon home, /phones - iphone /electronics - playstation will be available.