

# PROXIES

→ when we bunk class we ask our friend to give our proxy attendance

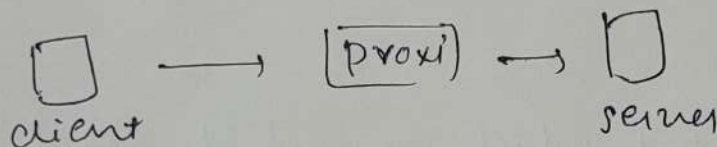
→ Eg client → proxy → broker

client is searching for houses but he directly don't want to interact with broker.

so client will hire a person that will act as an intermediate. this broker will tell the broker about house requirement.

→ proxy can hide client's information

→ proxy can store / remember client's requirements. (caching)



→ In system design, proxy is a piece of hardware or software that acts as an intermediate bet<sup>n</sup> client & server.

→ it helps to inc security, scalability & efficiency of system

Ques. How proxies work and its types

## Forward proxy

$C \rightarrow P \rightarrow S$

① client sends req to proxy & proxy sends to server

② It can hide client's identity

③ It can store frequently asked request info  
ie caching

## Reverse proxy

$C \leftarrow P \leftarrow S$

① server sends response to proxy & proxy sends response to client

② It can hide server's identity

③ It can store frequently sent responses info  
ie caching

## Benefits of proxies

### ① Security

proxies can ~~th~~ hide the IP address of server preventing direct exposure to internet

### ② Load balancing

proxies can split the incoming traffic across multiple servers i.e. inc speed + reliability

### ③ caching

proxies can store copies of frequently requested data, which reduces load on main server

### ④ Access control

proxies can control which request to reach to server

- Blocking or filtering unwanted traffic