

# Cloud Computing

## Chat Server Scalability

### NGINX:

- Scaling up by having a Server Pool, so requests can be sent to different Servers by using different Algorithms
- Port 80 is the Standard Web Server without TLS. TLS is not working in my App in case it works. TLS Connections configuration listens on Port 443
- I use a hash Algorithm which hashes the client's IP Address. So all requests from the same Client will go to the same Server.

### NGINX Configuration:

- Worker Processes: used to specify the total number of worker processes to spawn simultaneously
- Worker Connections: the maximum number of simultaneous connections that each worker process can manage.  
Although 512 is the default value of the worker\_connections in Nginx, most systems still have sufficient resources to accommodate a higher value
- Proxy\_pass: passes requests to upstreams
- Upstreams: Server Pool

### Socket.io Redis Adapter:

- Every packet that is sent to multiple clients sent to all matching clients connected to the current server, published in a Redis channel, and received by the other Socket.IO servers of the cluster