For the purpose of this course I simulated the performance of various Web Server Load Balancer algorithms.

Namely

1. Roudn Robin
2. Weighted Round Robin
3. Least Connection
4. Weighted Least Connection
5. Chained Failover

We analyzed and implemented how a particular Load Balancer behaves under varying type of loads implementing a particular load balancing algorithm. Modern day Computing architectures demand that we have multiple web servers to host a webservice(website). It could be for redundancy or to manage extreme amount of service requests. Modern webservers are capable of servicing tens and hindered thousands of requests per sec however there is still a limit on how much they can handle before users can feel the sluggishness in the system. For this purpose, most webservices are hosted on multiple servers at a time. But to have multiple servers but not be able to spread out the work load optimally is a waste of resource and cause of grievance. A Load Balancer optimizes and redirects the incoming service request to the proper server there by neither taxing one system too much or letting other system idle. Load balancer can either be a physical device or a virtual one.

Results from various algorithms has been thoroughly discussed in the simulation explanation video and Presentation.

Brief over view of the implementation and load balancers is added to the Code folder in \*.md files of the same name.