ABSTRACT

At today's digital era, especially Internet applications such as websites have become part of everyday life for the community. The content of the website has a variety of very diverse and interactive that can make the public to access it at any time. Along with the increasing public knowledge of the internet, resulting in increased traffic to a website and work load on the server increases. While the society wants maximum access speeds on a website.

With a State like this, load balancing can be used as performance increased to a web server with the goal of keeping the web server is not experiencing the overload request. The algorithms used on this final project is a Round Robin and LeastConnection.

In this final project the load balancing has been implementation using NGINX as load balancer. The average results obtained with load balancing using algorithm round robin for throughput 493.6383 kbps and then for respose time 984.2518 ms and for *request loss* 0.45 %. While on load balancing using algorithm least connection obtained throughput 473.3183 kbps and then for response time 993.7882 ms and for request loss 0.19%.

Keywords : *Load Balancing, Round Robin, Least Connection, Web Server*