Network load manager

- **Abstract**
- In this report, we describe the process of developing a Network Load Balancing system from design to implementation. When a single Server machine isn't enough to handle the traffic on the network it’s time to look into building a web Farm that uses multiple machines on the network acting as a single server. A Web Farm is a not so fancy term for a collection of servers [that act as a single Web server.
- Administration of two or more servers and keeping them properly synched is
- actually a lot more work than administering a single server. The Load Balancing can also provide benefits in the overload scenario. For one, tit's generally cheaper to throw mid-level machines at a load problem rather than buying lone top of the line high end machine.

- **Introduction**

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- The Load Balancing can also provide benefits in the overload scenario. For one, [it's generally cheaper to throw mid-level machines at a load problem
- rather than buying [one top of the line high end machine.
- Load Balancing also provides something else that has nothing to do with scalability: [The ability to have failover support if something goes wrong on one of the servers in the fool. Because a Web Farm is made up of essentially identically configured servers, a failure on a single server will not bring down the entire server contents.
- and pick up the slack.

- **Hard work requirements**

- Pentium 4.28GHz
- 256 MB RAM
- 40 or 80 GB hard disk
- Standard 101 Keyboard Standard 2 button mouse Backup: CD ROM/Hard Disk/Zip

- **Related work**

- The topic allocated to us for the socket programming project is “e-Voting System”. Here, the client establishes a connection with the server, this implies that the TCP protocol is being used. The Server should allocate a new thread for every new incoming Client, to accomplish this feature we took care of concipient thread, that is , when the number of connections are made with the server, that time each thread doesn’t interfere with one another. Therefore, we synchronized the threads.

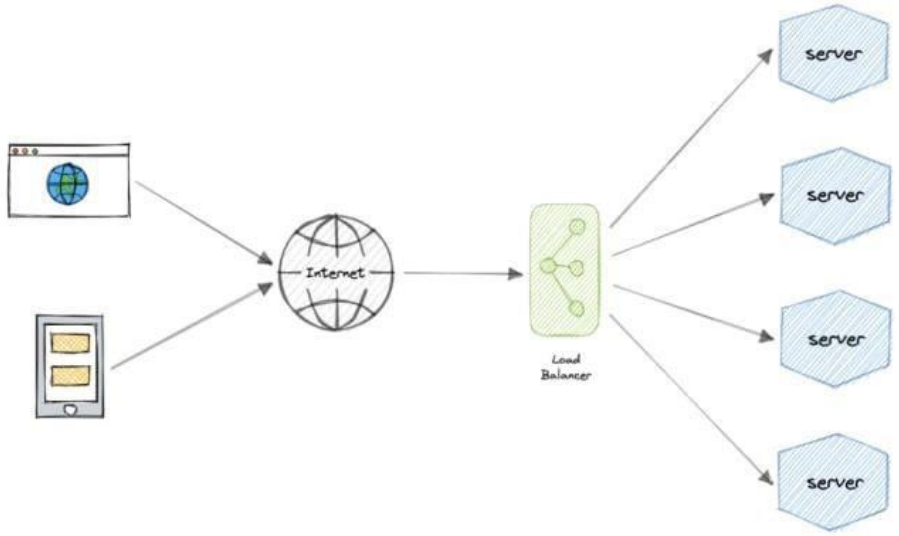
- **System overview**

- To develop and implement a web-based placement management system. Both students and universities benefit from placements that are of a high calibre. The university finds that collecting data from each student during this process is difficult and time-consuming. Data is frequently gathered manually. It takes a lot of time and work to operate the manual methods used by the institutions.

- Anyone inside or outside the university who has the proper login credentials can use the Training and Placement Module System online. This system may be used as an application by the institution's placement officer, Hod, Director of Education (DTE), to manage student data related to placement. All qualifying candidates will receive a link through email so they may choose whether to attend the particular drive and exam of that particular organisation. The system will offer a variety of account types for various user types, including principals, placement officers, and directors of education (DTE). The main component of the system is a dynamic data system, which helps the user and the administrator obtain and present the data in the desired manner. Users and administrators may more efficiently access data from the database using the filtering system, which lowers the amount of time wasted and errors made during manual operations in the present system.

- **System design**

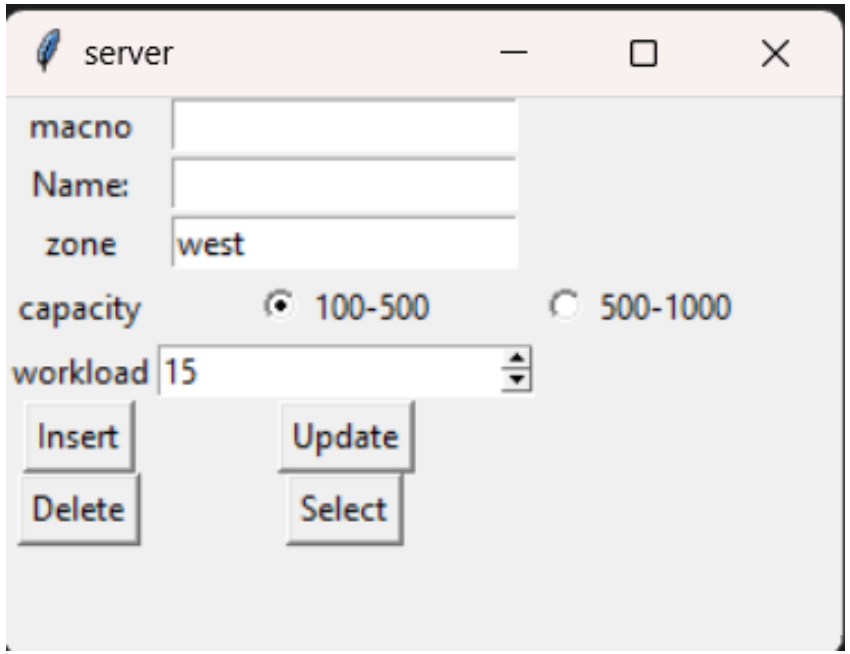
- Load balancing lets us distribute incoming network traffic across multiple resources ensuring high availability and reliability by sending requests only to resources that are online. This provides the flexibility to add or subtract resources as demand dictates.



• Implementation

- **How to run:**

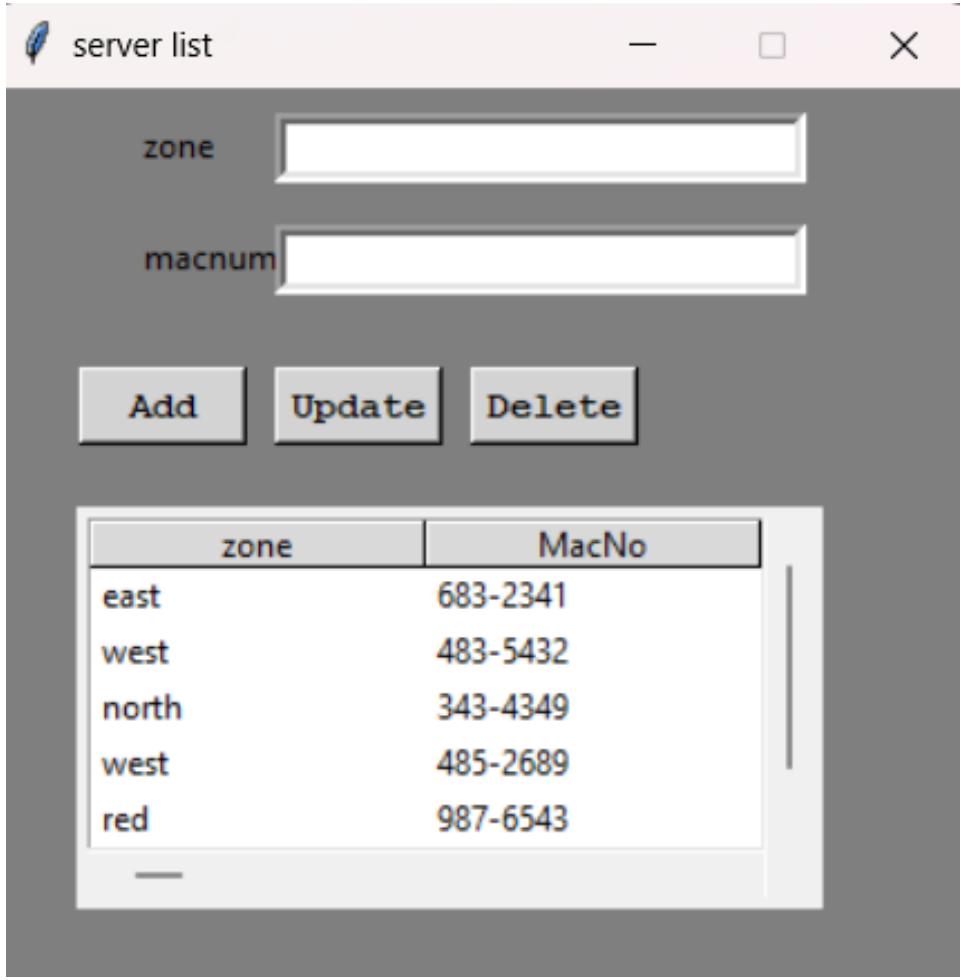
1. Open terminal/command prompt on your PC.
2. Navigate to ‘Server’ folder
3. Run command: python homePage.py
4. A new home page window should open. If this doesn’t happen, check your installations.
5. Login into Admin using given details in ‘How to Login’.
6. Click on the ‘Run server’ Button.
7. Use the best of the Buttons as you need.



How to login:

1.Only the admin can login

2.He can insert update and delete based on the requirements.



Result and discussion:

Software Defined Network (SDN) cut down the monopolies of producing network devices and their applications. It allows the use of an omniscient controller that manages the overall network and promises for simplifying the configuration and management burden of the traditional Internet Protocol (IP) network.

Conclusion:

In this project of "Network Load Manager" we manage to create an alternate solution when the server is overload or crashed due to heavy work or from many no .of request like the existing server can divert some request to other server or a server can take a certain no.of work load if it exceed the existing server will share their work with free server

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