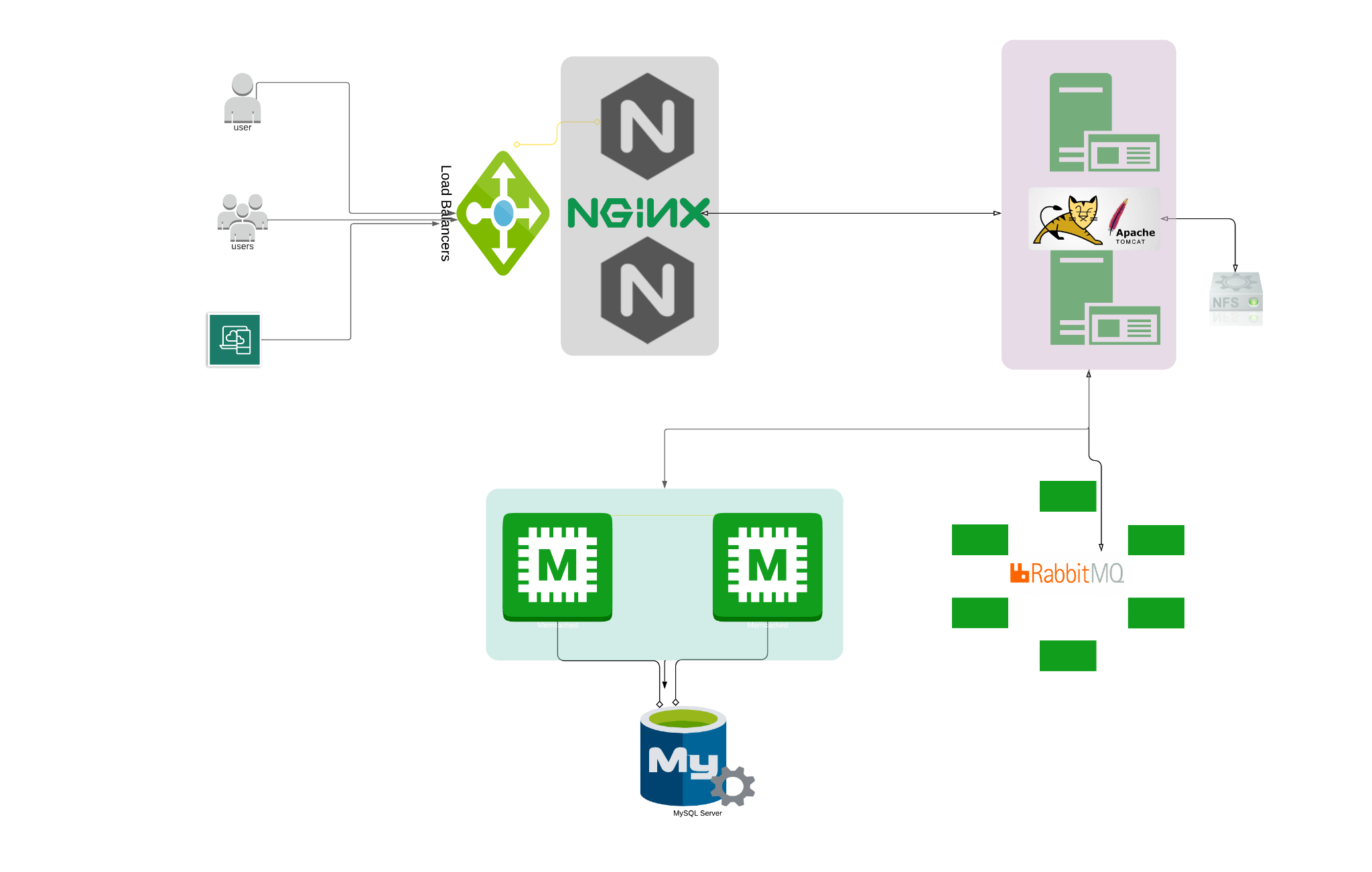
**1. Multi Tier Web Application Setup - Locally**

The agenda of this Project is to host a multitier web application stack on my local machine.

* Project Architecture (Services) :

1. NGINX – it will act as a Load balancer
2. Tomcat – It will be used to host Application
3. Rabbitmq – It will act as a message que
4. Memcached – It will be used to store cache
5. MYSQL – It will act as a Database

**

* Project Architecture (Automation Setup):

1. Oracle VM [VirtualBox]– It will be our Hypervisor
2. Vagrant - It will be used for Automating
3. VS code – Command Line Interface (CLI) & Integrated Development Environment (IDE)

* Project Execution:

1. VM Setup
2. Application Setup

**1. VM Setup**

Vagrant Setup :

1. Install Vagrant : <https://www.vagrantup.com/downloads>

Check if vagrant is installed

$ vagrant --version

1. Create a new Folder named as Vagrant

On terminal go inside the Vagrant folder and execute below command to initialize

$ vagrant init

Oracle VirtualBox Setup:

1. Install VirtualBox : <https://www.virtualbox.org/wiki/Downloads>

*NOTE:* A box is a pre-configured virtual machine image that you can use as a starting point for your virtual machine

Choose a box to use <https://app.vagrantup.com/boxes/search>

*NOTE:* Refer to Vagrant word Doc inside the Notes/Vagrant for deep dive into Vagrant

# VM SETUP 2.Application Setup

1. Write & Place the ‘vagrantfile’ inside the initialized Vagrant directory
2. Execute below command to install Vagrant Plugin

$ vagrant plugin install vagrant-hostmanager

1. Bring up vm’s

$ vagrant up

NOTE: Bringing up all the vm’s may take a long time based on various factors. If vm setup stops in the middle run “vagrant up” command again.

INFO: All the vm’s hostname and /etc/hosts file entries will be automatically updated.