1. Install latest version of Virtualbox
2. Install Git for Windows i.e, if you would like to run vagrant ssh after provisioning
3. cd to directory
4. vagrant up webserver
5. vagrant reload --provision webserver

#At this point notice nginx-test.sh runs via vagrant shell provision and you'll be able to see following output when reload completes –

==> webserver: Nginx is listening on port 80

==> webserver: Hello World is being served by Nginx

1. If you have GIT installed on windows then make sure to run this in your cmd session

set PATH=%PATH%;C:\Program Files\Git\usr\bin #this is a one-off step

1. Run following command that will create a single virtual machine -

vagrant ssh webserver

1. Run following command as vagrant user -

sudo netstat -tulnp|grep :80

You will see output like so -

vagrant@localhost:~$ sudo netstat -tulnp|grep :80

tcp 0 0 0.0.0.0:80 0.0.0.0:\* LISTEN 2134/nginx.conf

1. You can sudo to user John Smith or Alpha Beta which belong to group admin and set your password –
   1. As vagrant user run – sudo passwd js
   2. Set a password
   3. Now run following command and enter the password you have set for user John Smith (js) – sudo su – js
   4. You should now be able to run netstat command as seen in Step 8 as user js
   5. You can repeat step 9.1 to 9.4 for user Alpha Beta (ab) if needed

Please – Note We need these steps because Puppet expects the user’s password to be encrypted in the format the local system expects and hence I have not automated this part, although we could use a salted/hashed password

1. Visit http://192.168.33.10

You should be able to see following –

Hello World

Loadbalancing with Nginx Round Robin concept

1. Now edit Vagrantfile and uncomment line 59

Run following - vagrant reload –provision webserver

1. Now spin up two additional virtual machines like so -

vagrant up webapp1

vagrant up webapp2

1. Visit http://192.168.33.10

You should be able to see following –

Hello WorlD

Machine: webapp1

Click Refresh or Hit Ctrl+ F5

Machine:webapp2

Visit http://192.168.33.10

When you click refresh you will be able to see Machine:webapp1 and Machine:webapp2 being displayed below "Hello World" that depicts nginx loadbalancing two webapp servers 1 and 2 via round robin method.

Please- Note: I have not installed latest Puppet v4.5 because when I tested with Puppet 4.5 + vagrant + Ubuntu 14.0 it had some known bugs and did not allow me to complete my solution as I intended to. Hence I have downgraded to a version that is compatible with my current solution.