POC4 : Nginx LoadBalancer Through Ansible

It is assumed that you are load balancing 2 apache server through nginx and you have already install those apache servers on 2 different machines and project is deployed on them.

Step 1: Create Directory Structure as follows-

-loadBalancer

|-----loadBalancer\_role

|----handlers

|----tasks

|----templates

|----vars

|----files

|----defaults

Step 2: In “tasks” folder create “install.yml” file and write following content in it.

This file install nginx.

|  |
| --- |
| *---*  *- name: 1. install nginx*  *apt: name={{item}} state=present*  *with\_items:*  *- nginx*  *- nginx-common*  *- nginx-core* |

Step 3: In “tasks” folder create “configure.yml” file and write following content in it.

This file replaces content of */etc/nginx/sites-available/default file on remote host with content of default.j2 file. We will see dfault.j2 file in further discussion.*

|  |
| --- |
| *---*  *- name: Copy the nginx default site configuration file*  *template: src=default.j2 dest=/etc/nginx/sites-available/default*  *notify:*  *- restart nginx*  *- reload nginx* |

Step 4: In “tasks” folder create “main.yml” file and write following content in it.

|  |
| --- |
| *---*  *- include: install.yml*  *- include: configure.yml* |

Step 5: In “handlers” folder create “main.yml” file and write following content in it.

|  |
| --- |
| *---*  *- name: restart nginx*  *service: name=nginx state=restarted*  *- name: reload nginx*  *service: name=nginx state=reloaded* |

Step 6: In “templates” folder create “default.j2” file and write following content in it.

In this file we have added “upstream” block which handle load balancing between two apache servers i.e one is running on 172.27.59.17:8090 and other is running on *172.27.59.7:8000. Proxy\_pass gives you common url to access both apache through nginx.*

|  |
| --- |
| *server {*  *listen 80 default\_server;*  *listen [::]:80 default\_server ipv6only=on;*  *root /var/www/html/project\_name;*  *index index.html index.htm index.php;*  *# Make site accessible from http://localhost/*  *server\_name default;*  *location / {*  *proxy\_pass http://amol\_apache\_servers*  *}*  *}*  *upstream amol\_apache\_servers {*  *server 172.27.59.17:8090;*  *server 172.27.59.7:8000;*  *}* |

Step 7: In “loadBalancer” folder create “loadBalancer” file and write following content in it.

|  |
| --- |
| *---*  *- hosts: 172.27.59.17*  *Remote\_user: amol*  *sudo: yes*  *roles:*   * *loadBalancer \_role* |

Step 8: Now to execute what we have written, execute following command

ansible-playbook loadBalancer.yml - -ask-sudo-pass

Step 8: Edit /etc/hosts file and put

172.27.59.8 [www.amol\_apache\_servers.com](http://www.amol_apache_servers.com)

Where 172.27.59.8 is ip of machine in which nginx installed.