Ansible Simple Ecommerce Project
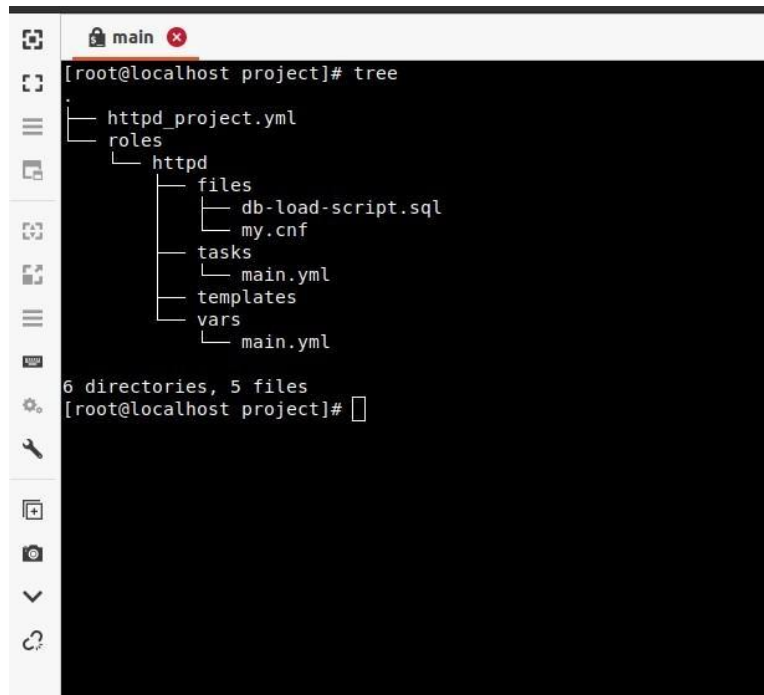
Firstly we need to create files (httpd_project.yml) and a directory (roles) in the same directory. Under the "roles" directory we created another directory which is called "httpd". Under this "httpd" directory we created four directory (vars, tasks, templates, files). We created "main.yml" files in the vars and tasks directory. In the files directory we created two files "db-load-script.sql" and "my.cnf".

 # Now in the "httpd_project.yml" file we have added the below lines:

```
---
 - name: project
   hosts: centos
   roles:
     - httpd
```

Note: We have provided the host name and roles information in this files. So it will go to "httpd" roles and execute the tasks.

 # We have mentioned the below lines in "roles/httpd/tasks/main.yml". This is our main task file.

```
- name: Installation Services
  yum:
    name:
      - libselinux-python
      - libsemanage-python
      - mariadb-server
      - MySQL-python
      - httpd
      - git
      - php
      -       php-
  mysql state:
  installed tags:
  install
```

#note: all the mentioned name will be installed by this section.

```
- name: Start firewalld
  service: name=firewalld state=started enabled=yes
  tags: start firewalld
```

#note: This task will enable the firewall.

```
- name: insert firewalld rule for httpd
  firewalld: port={{ httpd_port }}/tcp permanent=true state=enabled immediate=yes
  tags: enable httpd port
```

#note: This task will enable the port of httpd_port in the firewall. Port is mentioned in the "roles/httpd/vars/main.yml" file.

```
- name: insert firewalld rule for mysql
firewalld: port={{ mysql_port }}/tcp permanent=true state=enabled immediate=yes
  tags: enable mysql port
```

#note: This task will enable the port of mysql_port in the firewall. Port is mentioned in the "roles/httpd/vars/main.yml" file.

```
- name: Restart firewalld
  service: name=firewalld state=reloaded enabled=yes
  tags: restarted firewalld
```

#note: This task restarted the firewall after enabling the port.

```
- name: Copy Mysql configuration file
  copy: src=files/my.cnf dest=/etc/my.cnf
  tags: mysql conf copy
```

#note: This task will copy the mysql configuration file from source to destination.

```
- name: Start MariaDB Service
  service: name=mariadb state=started enabled=yes
  tags: start mariadb
```

#note: This task will start the mariadb service.

```
- name: Create Application Database
  mysql_db: name={{ dbname }} state=present
  tags: create database
```

#note: This task will create the database. And dbname is mentioned in "roles/httpd/vars/main.yml" file.

```
- name: Create Application DB User
  mysql_user: name={{ dbuser }} password={{ dbpassword }} priv=*.*:ALL host='localhost' state=present
  tags: create user
```

#note: This task will create the db user. Dbuser and dbpassword is mentioned in the "roles/httpd/vars/main.yml" file.

```
- name: Move db-load-script to db host
  copy:
    src: files/db-load-script.sql
    dest: /tmp/db-load-script.sql
  tags: copy sql
```

#note: This task will move the sql file which we created in "roles/httpd/files" in the "/tmp" directory.

```
- name: Load Inventory Data
  shell: mysql -f < /tmp/db-load-script.sql
  tags: run sql
```

#note: This task executed the sql which we mentioned in "db-load-script.sql" file

```
- name: Set index.php as the default page
  replace:
    path: /etc/httpd/conf/httpd.conf
    regexp: 'DirectoryIndex index.html'
    replace: '#DirectoryIndex index.html \nDirectoryIndex index.php'
  tags: rename html file
```

#note: This task replaced the "DirectoryIndex index.html" string "#DirectoryIndex index.html \ nDirectoryIndex index.php" by this line in "/etc/httpd/conf/httpd.conf" file.

```
- name: http service state
  service: name=httpd state=started enabled=yes
  tags: httpd start
```

#note: This task started the httpd services

- name: Copy the code from repository
  git: repo={{ repository }} dest=/var/www/html/ force=yes
  tags: clone

#note: This tasks cloned from the git repository in "/var/www/html/" directory.

- name: replace ip in index.php file
  command: sed -i 's/172.20.1.101/localhost/g' /var/www/html/index.php
  tags: replace ip

#note: This task replaced ip

we added the below lines in "roles/httpd/vars/main.yml" file

---

mysql_port: 3306

dbname: ecomdb

dbuser: ecomuser

dbpassword: ecompassword

httpd_port: 80

repository: https://github.com/Debaice06/Ansible_Projects_Ecommerce.git

Note: We have mentioned the variable in this file.

We added the below lines in "roles/httpd/files/db-load-script.sql" file.

USE ecomdb;

CREATE TABLE products (id mediumint(8) unsigned NOT NULL auto_increment,Name varchar(255) default NULL,Price varchar(255) default NULL, ImageUrl varchar(255) default NULL,PRIMARY KEY (id)) AUTO_INCREMENT=1;

INSERT INTO products (Name,Price,ImageUrl) VALUES ("Laptop","100","c-1.png"), ("Drone","200","c-2.png"),("VR","300","c-3.png"),("Tablet","50","c-5.png"),("Watch","90","c-6.png"),("Phone Covers","20","c-7.png"),("Phone","80","c-8.png"),("Laptop","150","c-4.png");

Note: This will create the tables and add data to the tables.

We added the below lines in "roles/httpd/files/my.cnf" file.

[mysqld]

datadir=/var/lib/mysql

socket=/var/lib/mysql/mysql.sock

symbolic-links=0

[mysqld_safe]

log-error=/var/log/mariadb/mariadb.log

pid-file=/var/run/mariadb/mariadb.pid

!includedir /etc/my.cnf.d

Note: This is for mariadb database configuration.

Now we executed the ansible playbook by the below lines -

ansible-playbook httpd_project.yml
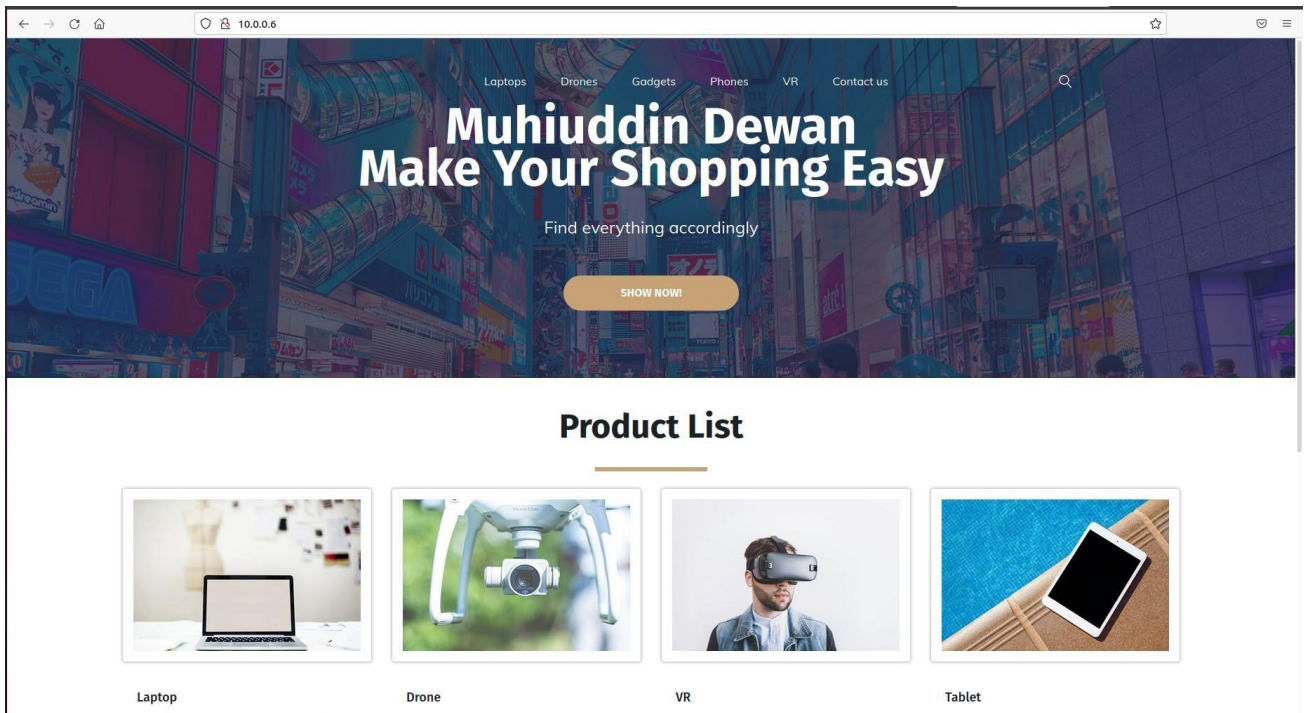

fig: all task results results

fig: Total task summarize details

fig: View of the site with my name