

1. Navigate to ansible roles directory

Syntax: `cd /etc/ansible/roles`

```
[ec2-user@master roles]$  
[ec2-user@master roles]$  
[ec2-user@master roles]$  
[ec2-user@master roles]$
```

2. Create the roles ansible roles called apache, php, mysql and wordpress.

Syntax: `sudo ansible-galaxy init apache`

```
[ec2-user@master roles]$  
[ec2-user@master roles]$  
[ec2-user@master roles]$ sudo ansible-galaxy init apache  
- Role apache was created successfully  
[ec2-user@master roles]$
```

Syntax: `sudo ansible-galaxy init mysql`

```
window (1) - ec2-13-233-252-252.ap-south-1.compute.amazonaws.com - Remote Desktop Connection  
[ec2-user@master roles]$  
[ec2-user@master roles]$  
[ec2-user@master roles]$ sudo ansible-galaxy init mysql  
- Role mysql was created successfully  
[ec2-user@master roles]$
```

Syntax: `sudo ansible-galaxy init php`

```
[ec2-user@master roles]$  
[ec2-user@master roles]$  
[ec2-user@master roles]$ sudo ansible-galaxy init php  
- Role php was created successfully  
[ec2-user@master roles]$
```

Syntax: `sudo ansible-galaxy init wordpress`

```
[ec2-user@master roles]$ sudo ansible-galaxy init wordpress  
- Role wordpress was created successfully  
[ec2-user@master roles]$
```

3. Now edit the main.yml within the `apache/tasks` directory

Syntax: `sudo vi apache/tasks/main.yml`

```
[ec2-user@master roles]$  
[ec2-user@master roles]$  
[ec2-user@master roles]$ sudo vi apache/tasks/main.yml
```

4. Playbook code:

```
---  
# tasks file for apache  
  
- name: Install HTTP Packages  
  yum: name=httpd update_cache=yes state=latest  
  
- name: Start httpd service  
  systemd: name=httpd state=started enabled=yes  
  
- name: Create Apache Document Root  
  file:  
    path: "/var/www/{{ http_host }}"  
    state: directory  
    owner: "apache"  
    group: "apache"  
    mode: '0755'  
  
- name: Set up Apache VirtualHost  
  template:  
    src: "files/httpd.conf"  
    dest: "/etc/httpd/conf.d/{{ http_conf }}"  
    owner: root  
    group: root  
    mode: u=rw,g=r,o=r
```

5. edit the main.yml within the apache/vars directory

Syntax: sudo vi apache/vars/main.yml

```
[ec2-user@master roles]$  
[ec2-user@master roles]$  
[ec2-user@master roles]$ sudo vi apache/vars/main.yml  
[ec2-user@master roles]$
```

6. Playbook code:

```
---  
# vars file for apache  
#HTTP Settings  
http_host: "wp.example.com"
```

```
http_conf: "wp.example.com.conf"
http_port: "80"
```

7. edit the main.yml within the `apache/files` directory

Syntax: `sudo vi apache/files/httpd.conf`

```
[ec2-user@master roles]$
[ec2-user@master roles]$
[ec2-user@master roles]$ sudo vi apache/files/httpd.conf
```

8. Playbook code:

```
<VirtualHost *:{ { http_port } }>
  ServerAdmin webmaster@localhost
  ServerName { { http_host } }
  ServerAlias www.{ { http_host } }
  DocumentRoot /var/www/{ { http_host } }/wordpress
  ErrorLog /var/log/httpd/error.log
  CustomLog /var/log/httpd/access.log combined

  <Directory /var/www/{ { http_host } }/wordpress>
    Options Indexes FollowSymLinks
    AllowOverride all
    Require all granted
  </Directory>
</VirtualHost>
```

9. Now edit the main.yml within the `php/tasks` directory

Syntax: `sudo vi php/tasks/main.yml`

```
[ec2-user@master roles]$
[ec2-user@master roles]$
[ec2-user@master roles]$ sudo vi php/tasks/main.yml
```

10. Playbook code:

```
- name: Install PHP Extensions
  yum: name={ { item } } update_cache=yes state=latest
  loop: "{ { php_modules } }"
```

11. Edit the main.yml within the `php/vars` directory

Syntax: `sudo vi php/vars/main.yml`

```
[ec2-user@master roles]$  
[ec2-user@master roles]$ sudo vi php/vars/main.yml
```

12. Playbook code:

```
---  
# vars file for php  
  
php_modules: [ 'php', 'php-curl', 'php-gd', 'php-mbstring', 'php-xml', 'php-xmlrpc', 'php-soap',  
'php-intl', 'php-zip' ]
```

13. Now edit the main.yml within the `mysql/tasks` directory

Syntax: `sudo vi mysql/tasks/main.yml`

```
[ec2-user@master roles]$  
[ec2-user@master roles]$  
[ec2-user@master roles]$ sudo vi mysql/tasks/main.yml
```

14. Playbook code:

```
# tasks file for mysql  
  
- name: Install MySQL Packages  
  yum: name={{ item }} update_cache=yes state=latest  
  loop:  
    - mariadb-server  
    - MySQL-python  
    - libselinux-python  
    - libsemanage-python  
  
- name: Start mysqld service  
  systemd: name=mariadb state=started enabled=yes  
  
- name: Set MySQL root Password  
  mysql_user:  
    login_host: 'localhost'  
    login_user: 'root'  
    login_password: ''  
    name: 'root'
```

```
password: '{{ mysql_root_password }}'  
state: present
```

- name: Creates database for WordPress
mysql_db:
name: "{{ mysql_db }}"
state: present
login_user: root
login_password: "{{ mysql_root_password }}"
- name: Create MySQL user for WordPress
mysql_user:
name: "{{ mysql_user }}"
password: "{{ mysql_password }}"
priv: "{{ mysql_db }}.*:ALL"
state: present
login_user: root
login_password: "{{ mysql_root_password }}"

15. edit the main.yml within the mysql/vars directory

Syntax: `sudo vi mysql/vars/main.yml`

```
[ec2-user@master roles]$  
[ec2-user@master roles]$  
[ec2-user@master roles]$ sudo vi mysql/vars/main.yml
```

16. Playbook code:

```
---  
# vars file for mysql  
mysql_root_password: "password"  
mysql_db: "wpdb"  
mysql_user: "wpuser"  
mysql_password: "password"
```

17. edit the main.yml within the wordpress/tasks directory

Syntax: `sudo vi wordpress/tasks/main.yml`

```
[ec2-user@master roles]$  
[ec2-user@master roles]$  
[ec2-user@master roles]$ sudo vi wordpress/tasks/main.yml
```

18. Playbook code:

tasks file for wordpress

- name: Download and unpack latest WordPress
unarchive:
 - src: https://wordpress.org/latest.tar.gz
 - dest: "/var/www/{{ http_host }}"
 - remote_src: yes
 - creates: "/var/www/{{ http_host }}/wordpress"

- name: Set ownership
file:
 - path: "/var/www/{{ http_host }}"
 - state: directory
 - recurse: yes
 - owner: apache
 - group: apache

- name: Set permissions for directories
shell: "/usr/bin/find /var/www/{{ http_host }}/wordpress/ -type d -exec chmod 750 {} \\";

- name: Set permissions for files
shell: "/usr/bin/find /var/www/{{ http_host }}/wordpress/ -type f -exec chmod 640 {} \\";

- name: Copy sample config file
command: mv /var/www/{{ http_host }}/wordpress/wp-config-sample.php /var/www/{{ http_host }}/wordpress/wp-config.php creates=/var/www/{{ http_host }}/wordpress/wp-config.php
become: yes

- name: Update WordPress config file
lineinfile:
 - path: "/var/www/{{ http_host }}/wordpress/wp-config.php"
 - regexp: "{{item.regexp}}"
 - line: "{{item.line}}"with_items:
 - {regexp: "define\\('DB_NAME', '(.)+' \\\);", 'line': "define('DB_NAME', '{{mysql_db}});"}"
 - {regexp: "define\\('DB_USER', '(.)+' \\\);", 'line': "define('DB_USER', '{{mysql_user}});"}"
 - {regexp: "define\\('DB_PASSWORD', '(.)+' \\\);", 'line': "define('DB_PASSWORD', '{{mysql_password}});"}"

```
- name: Restart httpd service
  systemd: name=httpd state=restarted
  become: yes
```

19. edit the main.yml within the wordpress/vars directory

Syntax: `sudo vi wordpress/vars/main.yml`

```
ec2-user@master roles]$
ec2-user@master roles]$ sudo vi wordpress/vars/main.yml
```

20. Playbook code:

```
---
# vars file for wordpress
#PHP Settings
php_modules: [ 'php', 'php-curl', 'php-gd', 'php-mbstring', 'php-xml', 'php-xmlrpc', 'php-soap',
'php-intl', 'php-zip' ]

#MySQL Settings
mysql_root_password: "your-root-password"
mysql_db: "wpdb"
mysql_user: "wpuser"
mysql_password: "password"

#HTTP Settings
http_host: "wp.example.com"
http_conf: "wp.example.com.conf"
http_port: "80"
```

21. Now create the site.yml on /etc/ansible/role/site.yml

Syntax: `/etc/ansible/role/site.yml`

```
ec2-user@master roles]$
ec2-user@master roles]$
ec2-user@master roles]$ sudo vi site.yml
ec2-user@master roles]$
```

22. Playbook code:

```
---
- hosts: webserver
```

```
become: true
become_user: root
roles:
  - role: apache
    tags:
      - apache
  - role: php
    tags:
      - php
  - role: mysql
    tags:
      - mysql
  - role: wordpress
    tags:
      - wordpress
```

23. Finally execute the playbook

Syntax: `ansible-playbook site.yml`

```
[ec2-user@master roles]$
[ec2-user@master roles]$
[ec2-user@master roles]$
[ec2-user@master roles]$ ansible-playbook site.yml █
```

24. Output:-


```

window (1) - ec2-13-233-252-252.ap-south-1.compute.amazonaws.com - Remote Desktop Connection
[ec2-user@master roles]$ ansible-playbook site.yml

PLAY [webserver] *****

TASK [Gathering Facts] *****
[WARNING]: Platform linux on host 172.31.32.183 is using the discovered Python interpreter at /usr/bin/python, but future installation of another
could change this. See https://docs.ansible.com/ansible/2.9/reference_appendices/interpreter_discovery.html for more information.
ok: [172.31.32.183]

TASK [apache : Install HTTP Packages] *****
ok: [172.31.32.183]

TASK [apache : Start httpd service] *****
ok: [172.31.32.183]

TASK [apache : Create Apache Document Root] *****
ok: [172.31.32.183]

TASK [apache : Set up Apache VirtualHost] *****
ok: [172.31.32.183]

TASK [php : Install PHP Extensions] *****
ok: [172.31.32.183] => (item=php)
ok: [172.31.32.183] => (item=php-curl)
ok: [172.31.32.183] => (item=php-gd)
ok: [172.31.32.183] => (item=php-mbstring)
ok: [172.31.32.183] => (item=php-xml)
ok: [172.31.32.183] => (item=php-xmlrpc)
ok: [172.31.32.183] => (item=php-soap)
ok: [172.31.32.183] => (item=php-intl)
ok: [172.31.32.183] => (item=php-zip)

TASK [mysql : Install MySQL Packages] *****
ok: [172.31.32.183] => (item=mariaadb-server)
ok: [172.31.32.183] => (item=MySQL-python)
ok: [172.31.32.183] => (item=libselinux-python)
ok: [172.31.32.183] => (item=libsemanage-python)

TASK [Start mysqld service] *****
ok: [172.31.32.183]

TASK [mysql : Set MySQL root Password] *****

TASK [wordpress : Download and unpack latest WordPress] *****
skipping: [172.31.32.183]

TASK [wordpress : Set ownership] *****
ok: [172.31.32.183]

TASK [wordpress : Set permissions for directories] *****
changed: [172.31.32.183]

TASK [wordpress : Set permissions for files] *****
changed: [172.31.32.183]

TASK [wordpress : Copy sample config file] *****
ok: [172.31.32.183]

TASK [wordpress : Update WordPress config file] *****
ok: [172.31.32.183] => (item={u'regexp': u"define\\( 'DB_NAME', '(.)+' \\);";, u'line': u"define( 'DB_NAME', 'wpdb' );"})
ok: [172.31.32.183] => (item={u'regexp': u"define\\( 'DB_USER', '(.)+' \\);";, u'line': u"define( 'DB_USER', 'wpuser' );"})
ok: [172.31.32.183] => (item={u'regexp': u"define\\( 'DB_PASSWORD', '(.)+' \\);";, u'line': u"define( 'DB_PASSWORD', 'password' );"})

TASK [wordpress : Restart httpd service] *****
changed: [172.31.32.183]

```

25. Access the wordpress url <http://3.111.218.158/>

← → ↻ ⚠ Not secure | 3.111.218.158/wp-admin/profile.php

Apps Gmail YouTube Maps Amazon Web Servic... Welcome | AWS Trai... AWS Documentation Azure docu

WordPress mytechblog 1 0 + New

Dashboard

Posts

Media

Pages

Comments

Appearance

Plugins 1

Users

All Users

Add New

Profile

Tools

Settings

Collapse menu

Profile

Personal Options

Visual Editor ☐ Disable the visual editor when writing

Syntax Highlighting ☐ Disable syntax highlighting when editing code

Admin Color Scheme

☒ Default

☐ Light

☐ Coffee

☐ Ectoplasm

☐ Sunrise