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Ansible Playbook Codes:

File: main.yaml

```
---
- import_playbook: ./ubuntu_playbook.yaml
  when: ansible_os_family=='Debian'
- import_playbook: ./centos_playbook.yaml
  when: ansible_os_family=='RedHat'
```

File: centos_playbook_v2.yaml

```
name: Setup LAMP stack
# hosts: centos
become: yes
vars:
  pkg_list:
    - httpd
    - php
    - php-mysql
    - mysql-server
  srvc_list:
    - name: httpd
      state: started
      enabled: yes
    - name: mysqld
      state: started
      enabled: yes
  server address: 192.168.56.107
tasks:
```

```
- name: Download MySQL Community Repo
     get url:
       url:
http://repo.mysql.com/mysql-community-release-el7-7.noarch.rpm
        dest: /tmp
    - name: Install MySQL Community Repo
       name: /tmp/mysql-community-release-e17-7.noarch.rpm
       state: present
   - name: Install Apache, PHP & MySQL
     yum:
       name: "{{pkg list}}"
       state: present
   - name: Start and Enable Apache and MySQL
     service:
       name: "{{item.name}}"
       state: "{{item.state}}"
       enabled: "{{item.enabled}}"
     with_items: "{{srvc_list}}"
    - name: Restart Apache service
     service:
       name: httpd
       state: restarted
   - name: Apply Jinja Template
      template:
        src: /home/ansible/playbooks/home cfg.conf.j2
        dest: /etc/httpd/conf.d/home_cfg.conf
    - name: Copy HTML files
     copy:
        src: /home/ansible/playbooks/templates/index.php
        dest: /var/www/html/index.php
    - name: Start firewalld
```

```
service:
   name: firewalld
   state: started
   enabled: yes

- name: Set Firewall rule
   firewalld:
     port: 80/tcp
     permanent: true
   state: enabled
   immediate: yes
```

File: ubuntu_playbook_v2.yaml

```
name: Install LAMP on Ubuntu
# hosts: ubuntu
become: true
vars:
  pkg_list:
    - mysql-server
    - nginx
     - software-properties-common
     - php7.4
     - php7.4-mysql
     - php7.4-curl
     - php7.4-json
    - php7.4-cgi
     - php7.4-xsl
     - php7.4-cgi
     - php7.4-gd
     - php7.4-mbstring
     - php7.4-zip
     - php7.4-xmlrpc
     - php7.4-soap
     - php7.4-intl
     - libapache2-mod-php
```

```
tasks:
 - name: "Repo PHP 7.4"
   apt_repository:
     repo="ppa:ondrej/php"
 - name: "Updating the repo"
   apt: update_cache=yes
 - name: Installing packages
   apt:
     name: "{{item}}"
     state: present
   with items: "{{pkg list}}"
 - name: Start and Enable mysql.service
   service:
     name: mysql.service
     state: started
     enabled: yes
 - name: Allow incoming connections on port 80
   ufw:
     rule: allow
     port: '80'
 - name: Copy Nginx sites-available file
   copy:
     src: /home/ansible/playbooks/default
     dest: /etc/nginx/sites-available/default
     owner: root
     group: root
     mode: "0644"
   notify:
     - Restart Nginx
 - name: Copy web files to /var/www/html
   copy:
     src: /home/ansible/playbooks/templates/index.php
     dest: /var/www/html/index.php
```

```
owner: root
group: root
mode: "0755"
```

Apache VirtualHost setup using jinja template:

On master:

On client:

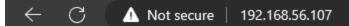
WebPage generation using jinja template:

Playbook Run:

```
[root@ansible-master playbooks]# ansible-playbook main.yaml
[root@ansible-master playbooks]# 📕
```

Centos services:

```
[samin@centos-client ~]$ systemctl status httpd
 httpd.service - The Apache HTTP Server
    Loaded: loaded (/usr/lib/systemd/system/httpd.service; enabled; vendor preset: disabled)
Active: active (running) since Wed 2023-05-17 00:31:09 EDT; 18min ago
               man:apachectl(8)
   Process: 10958 ExecStop=/bin/kill -WINCH ${MAINPID} (code=exited, status=0/SUCCESS)
 Main PID: 10964 (httpd)
    Status: "Total requests: 4; Current requests/sec: 0; Current traffic: 0 B/sec" CGroup: /system.slice/httpd.service
                  -10964 /usr/sbin/httpd -DFOREGROUND
                -10965 /usr/sbin/httpd -DFOREGROUND
                 -10966 /usr/sbin/httpd -DFOREGROUND
                -10967 /usr/sbin/httpd -DFOREGROUND
                 -10968 /usr/sbin/httpd -DFOREGROUND
                 -10969 /usr/sbin/httpd -DFOREGROUND
                ______11338 /usr/sbin/httpd -DFOREGROUND
May 17 00:31:09 centos-client.localdomain systemd[1]: Starting The Apache HTTP Server...
May 17 00:31:09 centos-client.localdomain httpd[10964]: AH00558: httpd: Could not reliably determine the server...sage
May 17 00:31:09 centos-client.localdomain systemd[1]: Started The Apache HTTP Server.
Hint: Some lines were ellipsized, use -l to show in full.
```



<u>Homepage</u> Hello, RedHat

Ubuntu Services:

```
samin@ubuntu-client:~$ php -v
PHP 8.2.6 (cli) (built: May 12 2023 06:23:43) (NTS)
Copyright (c) The PHP Group
Zend Engine v4.2.6, Copyright (c) Zend Technologies
    with Zend OPcache v8.2.6, Copyright (c), by Zend Technologies

samin@ubuntu-client:~$ systemctl status mysql.service

• mysql.service - MySQL Community Server
    Loaded: loaded (/lib/systemd/system/mysql.service; enabled; vendor preset: enabled)
    Active: active (running) since Wed 2023-05-17 02:41:53 UTC; 2h 8min ago
Main PID: 774 (mysqld)
    Status: "Server is operational"
    Tasks: 37 (limit: 4609)
    Memory: 429.2M
    CGroup: /system.slice/mysql.service
    L−774 /usr/sbin/mysqld

May 17 02:41:48 ubuntu-client.localdomain systemd[1]: Starting MySQL Community Server...
May 17 02:41:53 ubuntu-client.localdomain systemd[1]: Started MySQL Community Server.
samin@ubuntu-client:~$

■
```



<u>Homepage</u> Hello, Debian