Lab 5 Ansible

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1- Installing ansible on the controller VM

        sudo apt install software-properties-common

        sudo add-apt-repository --yes --update ppa:ansible/ansible

        sudo apt install ansible

2-Writing yml file to configure the other VM:

    nano configuration.yml:

 # Task 1 rename the host

```yaml
- name: Rename a host

  ansible.builtin.hostname:
          name: "{{ hostname }}"
```

 # Task 2 installing apache2

```yaml
- name: installing apache
    ansible.builtin.package:
            name: apache2
            state: present

  - name: enabled mod_rewrite
    apache2_module:
            name=rewrite
            state=present
    notify:
       - restart apache2
```

 # Task 3 create a virtual host file in apache2

```yaml
- name: create virtual host file
    ansible.builtin.template:
```

```
                    src: virtualhost.conf
                    dest: /etc/apache2/sites-available/{{ domain }}.conf
          notify:
            - restart apache2


    - name: a2ensite "{{ domain }}"
      command: a2ensite "{{ domain }}"
      notify:
        - restart apache2
```

Task 4 install WordPress with all dependencies

```
 - name: Install dependencies for wordpress
     apt:
      name={{ item }}
      state=present
     with_items:
       - python3-pip
       - mariadb-server
       - php
       - php-mysql

    - name: Install Required pip modules
      pip:
       name:
         - PyMySQL
       state: present
       executable: pip3

    - name: Ensure MariaDB is running (and enable it at boot)
      service: name=mariadb state=started enabled=yes

    - name: Copy ~/.my.cnf to nodes
      copy: src=~/.my.cnf dest=/root/.my.cnf

    - name: Create MariaDB user
      community.mysql.mysql_user: name=wpuser password=1234 state=present
login_user=root login_password=1234 priv=*.*:ALL

    - name: Create MariaDB database
      mysql_db: name=wpdatabase state=present

    - name: Download WordPress
      get_url: url=https://www.wordpress.org/latest.tar.gz
dest=/var/www/html/wordpress.tar.gz validate_certs=no

    - name: Extract WordPress
      command: "tar xzf /var/www/html/wordpress.tar.gz -C  /var/www/html"
```

```
    - name: copy configuration file of wordpress
      copy: src=~/wp-config.php dest=/var/www/html/wordpress/wp-config.php
mode=0644
  handlers:
    - name: restart apache2
      service: name=apache2 state=restarted
```

# Writing host file to hold the variables of yml file:

hosts.txt
client1 ansible_host=192.168.224.135 ansible_user=youssef
ansible_password=123 ansible_become_password=123
hostname=youssef domain= ahmed.com

Writing Virtual host file:

```
<VirtualHost *:80>
    ServerName {{ domain }}
    ServerAlias {{ domain }}
    DocumentRoot /var/ahmed.com/{{ domain }}
</VirtualHost>

<Directory /var/websites/{{ domain }}>
      AllowOverride all
      Require all granted
</Directory>
```
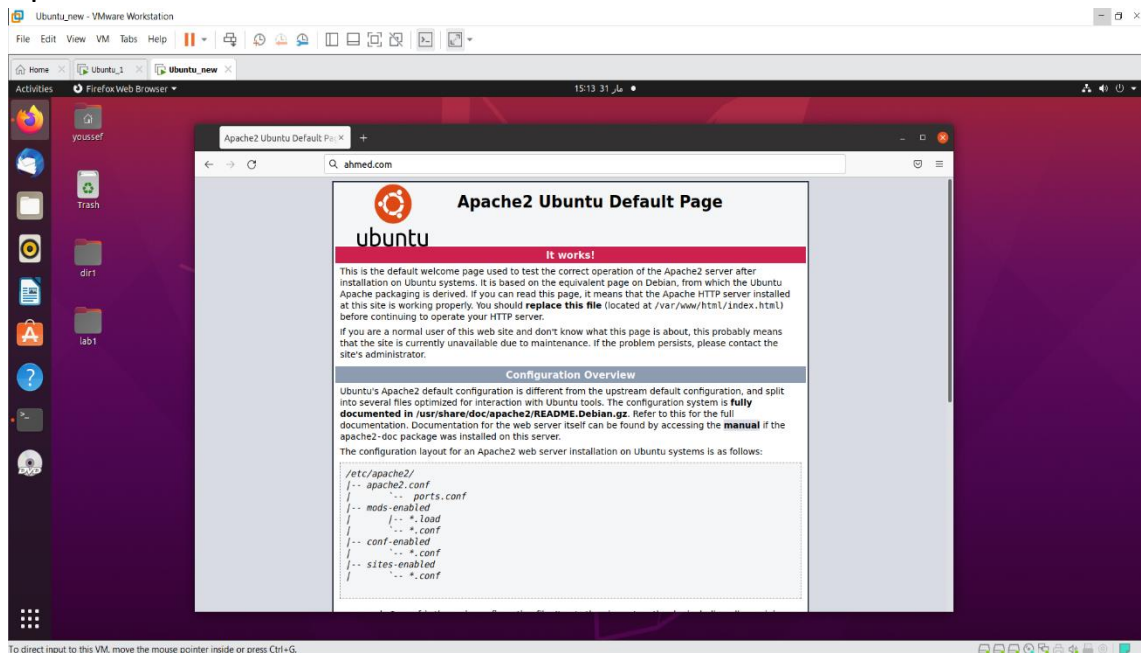
→screen form control VM
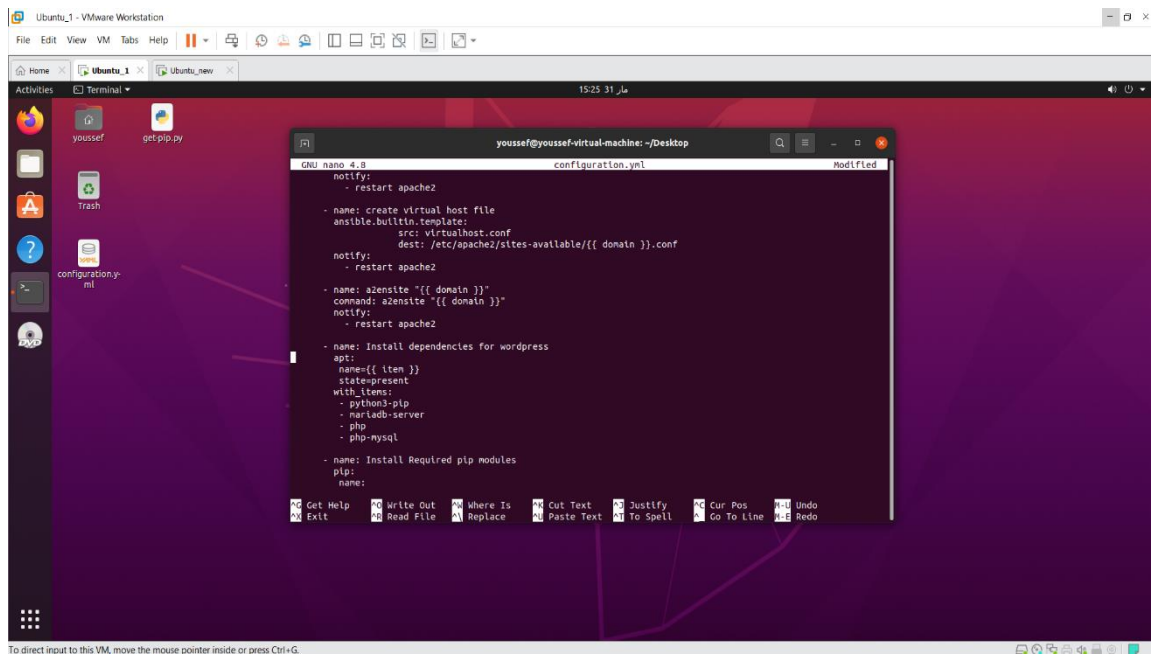
→screen from target VM:

Apache2 with virtual host ahmed.com:

Wordpress: