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Lab 4

ROLES

Create your first role with name (web)

The task book will include:

1. installing a package

(get the package name from vars)

2. copying a list of files from controller to host using loop

(get the list of file names from vars)

(the actual files will be stored in ./roles/web/files)

(will be executed only when the install task is in state: changed)

Restart the service of the installed package

(will be executed only when the copy task is in state: changed)

HANDLERS

The task book will include:

1. installing a package

(get the package name from vars)

2. copying a list of files from controller to host using loop

(get the list of file names from vars)

(the actual files will be stored in ./roles/web/files)

(will be executed using Handlers)

Restart the service of the installed package

(will be executed using Handlers chaining)

TEMPLATES

The task book will include:

1. installing a package

(get the package name from vars)

2. Copying a file from controller to host using template

(get the template name & template message from vars)

(the actual template file will be stored in ./roles/web/templates)

(will also notify the restart handler)

3. copying a list of files from controller to host using loop
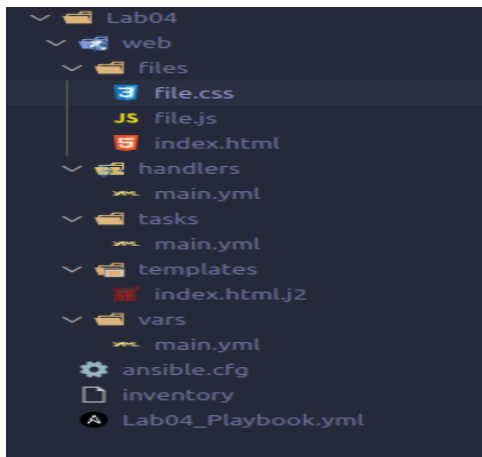
(get the list of file names from vars)

(the actual files will be stored in ./roles/web/files)

(will be executed using Handlers)

Restart the service of the installed package

(will be executed using Handlers chaining)

Role web

tasks/main.yml

```yaml
---
- name: Install the package
  apt:
    name: "{{ pkg_name }}"
    state: present
  register: res

- name: print
  debug:
    msg: "{{ res }}"

- name: Copy index from controller to host
  template:
    src: "{{ tmp_name }}"
    dest: "/var/www/html/index.html"
  notify: Copy files from controller to host
```

templates/index.html.j2

```
Lab04 > web > templates > index.html.j2
1    <html>
2        <link rel="stylesheet" type="text/css" href="file.css">
3        <script src="file.js"></script>
4    <body>
5    <center>
6        <h1>{{ tmp_msg }}</h1>
7    </center>
8    </body>
9    </html>
10
```

vars/main.yml

```
Ansible Vars File - Ansible variables File (vars.json)
---
pkg_name: nginx
tmp_name: index.html.j2
tmp_msg: "Hello, My Name is Seif Hendawy, I'm A DevOps Engineer.<br> This is the Ansible course From ITI"
files_to_copy:
 # - index.html
 - file.css
 - file.js
```

handlers/main.yml

```
Ansible Tasks Schema - Ansible tasks file (ansible.json)
---
- name: Copy files from controller to host
  copy:
    src: "{{ item }}"
    dest: "/var/www/html/{{ item | basename }}"
  loop: "{{ files_to_copy }}"
  notify: Copy files to host

- name: Copy files to host
  debug:
    msg: "Copying files from controller to host"
  notify: Restart service

- name: Restart service
  sysvinit:
    name: "{{ pkg_name }}"
    state: restarted
  when: res.changed != false
```

Playbook

```
Lab04 > A Lab04_Playbook.yml
    1   - name: play 1
    2     hosts: all
    3     roles:
    4       - web
    5
```

```
seif@seif-Alienware-17-R5:~/Documents/Ansible/Lab04$ ansible-playbook Lab04_Playbook.yml
BECOME password:

PLAY [play 1] *******************************************************************************

TASK [Gathering Facts] **********************************************************************
ok: [172.17.0.2]

TASK [web : Install the package] ***********************************************************
ok: [172.17.0.2]

TASK [web : print] **************************************************************************
ok: [172.17.0.2] => {
    "msg": {
        "cache_update_time": 1694765850,
        "cache_updated": false,
        "changed": false,
        "failed": false
    }
}

TASK [web : Copy index from controller to host] *******************************************
ok: [172.17.0.2]

PLAY RECAP **********************************************************************************
172.17.0.2                 : ok=4    changed=0    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0

seif@seif-Alienware-17-R5:~/Documents/Ansible/Lab04$
```

172.17.0.2/   ×   +

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Hello, My Name is Seif Hendawy, I'm A DevOps Engineer.
This is the Ansible course From ITI