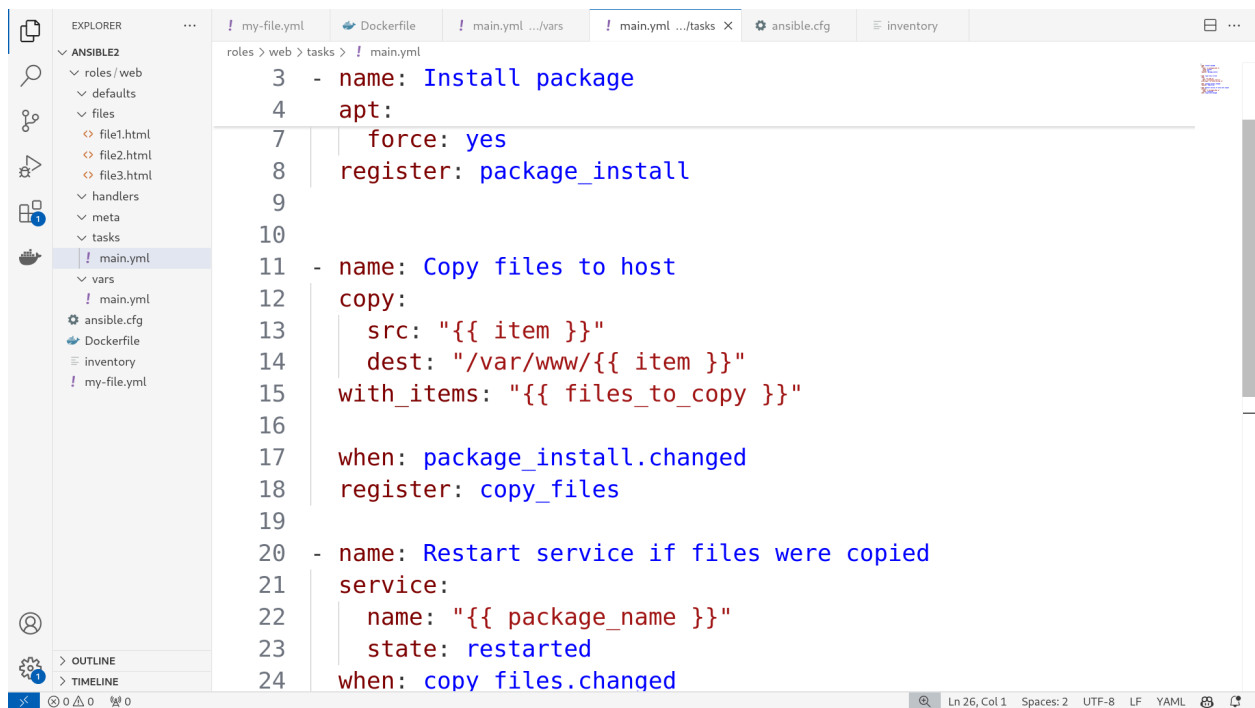1) Create your first role with name (web)

2) The task book will include:

3) 1. installing a package

4) (get the package name from vars)

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

6) (get the list of file names from vars)

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

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

9) Restart the service of the installed package

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

File   Edit   Selection   View   Go   Run   Terminal   Help

EXPLORER

⌄ ANSIBLE2
  ⌄ roles / web
    ⌄ defaults
    ⌄ files
      ◇ file1.html
      ◇ file2.html
      ◇ file3.html
    ⌄ handlers
    ⌄ meta
    ⌄ tasks
      ! main.yml
    ⌄ vars
      ! main.yml
  ⚙ ansible.cfg
  🐳 Dockerfile
  ≡ inventory
  ! my-file.yml

! my-file.yml   🐳 Dockerfile   ! main.yml .../vars   ! main.yml .../tasks ✕   ⚙ ansible.cfg   ≡ inventory

roles > web > tasks > ! main.yml

```yaml
3    - name: Install package
5        name: "{{ package_name }}"
6        state: present
7      register: package_install
8
9    - name: Copy files to host
```

PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL   PORTS   COMMENTS

```
BECOME password:

PLAY [Deploy Web Role] ***********************************************************************

TASK [Gathering Facts] ***********************************************************************
ok: [172.17.0.3]

TASK [web : Install package] *****************************************************************
ok: [172.17.0.3]

TASK [web : Copy files to host] **************************************************************
skipping: [172.17.0.3]

TASK [web : Restart service if files were copied] ********************************************
skipping: [172.17.0.3]

PLAY RECAP ***********************************************************************************
172.17.0.3                 : ok=2    changed=0    unreachable=0    failed=0    skipped=2    rescued=0    ignored=0

[ahlam@localhost ansible2]$
```

OUTLINE
TIMELINE

Ln 23, Col 3   Spaces: 2   UTF-8   LF   YAML

bash
bash

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
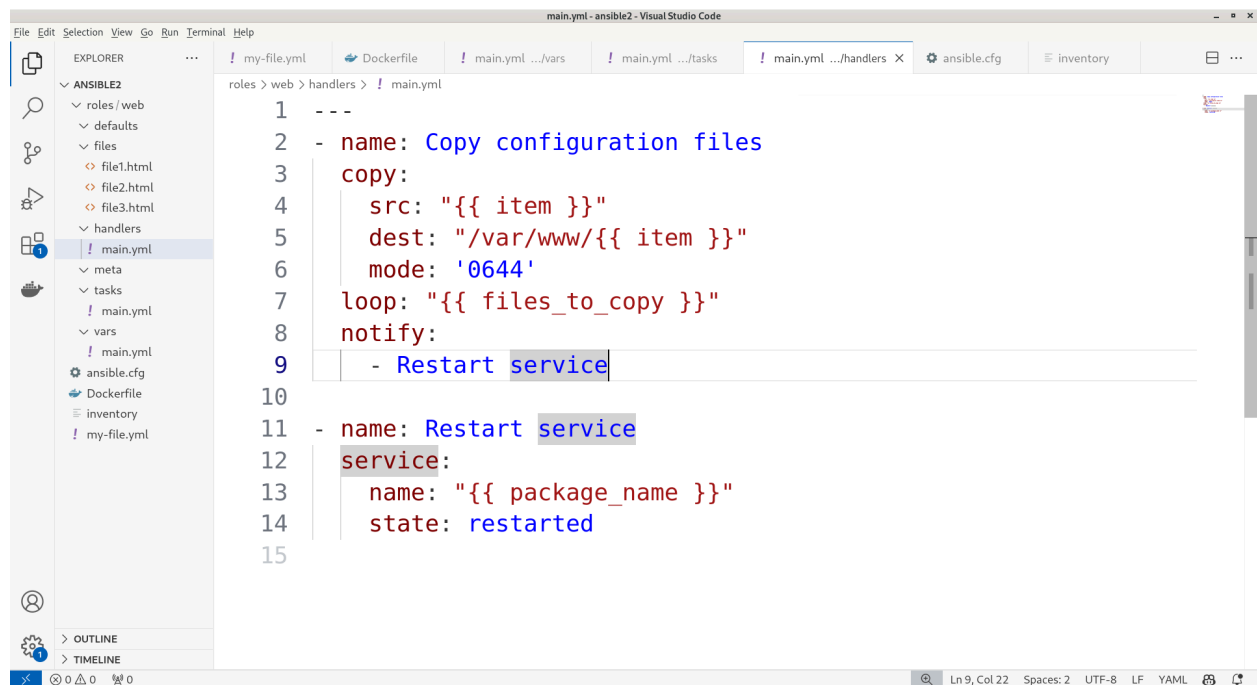
(get the list of file names from vars)

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

(will be executed using Handlers)

Restart the service of the installed package
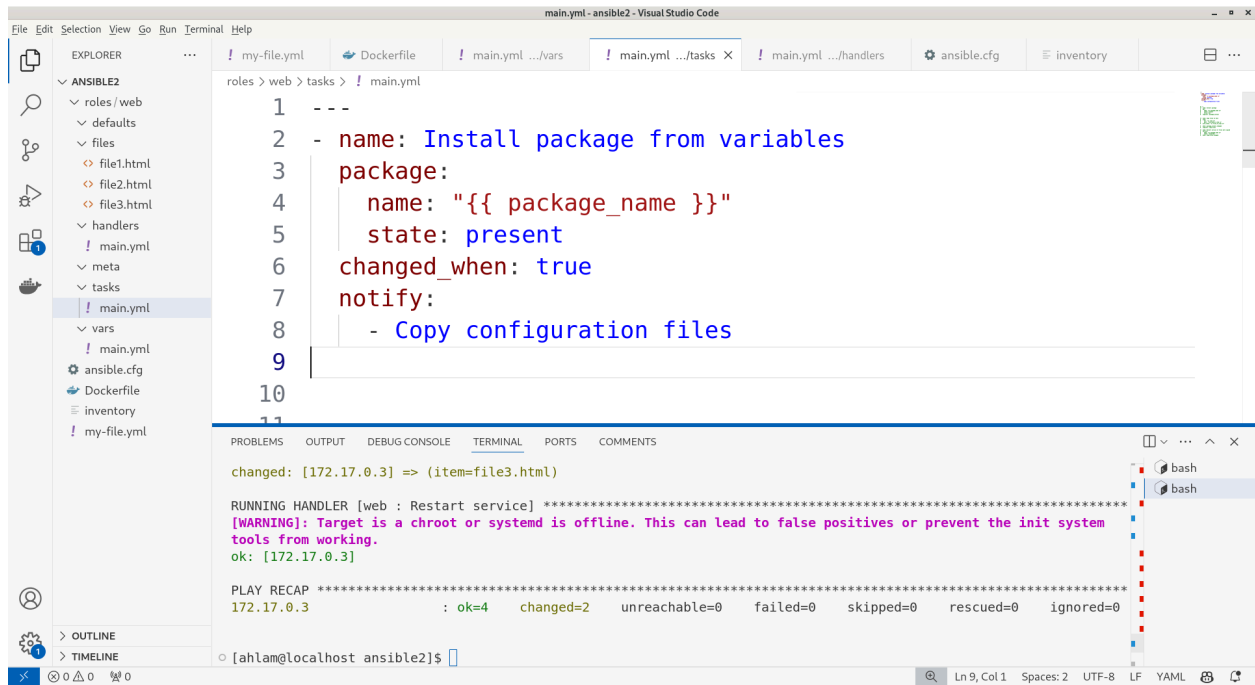
(will be executed using Handlers chaining)

Handeler

Task

File Edit Selection View Go Run Terminal Help

EXPLORER

! my-file.yml   🐳 Dockerfile   ! main.yml .../vars   ! main.yml .../tasks ✕   ! main.yml .../handlers   ⚙ ansible.cfg   ≡ inventory

∨ ANSIBLE2

roles > web > tasks > ! main.yml

```yaml
1  ---
2  - name: Install package from variables
3    package:
4      name: "{{ package_name }}"
5      state: present
6    changed_when: true
7    notify:
8      - Copy configuration files
9
10
11
```
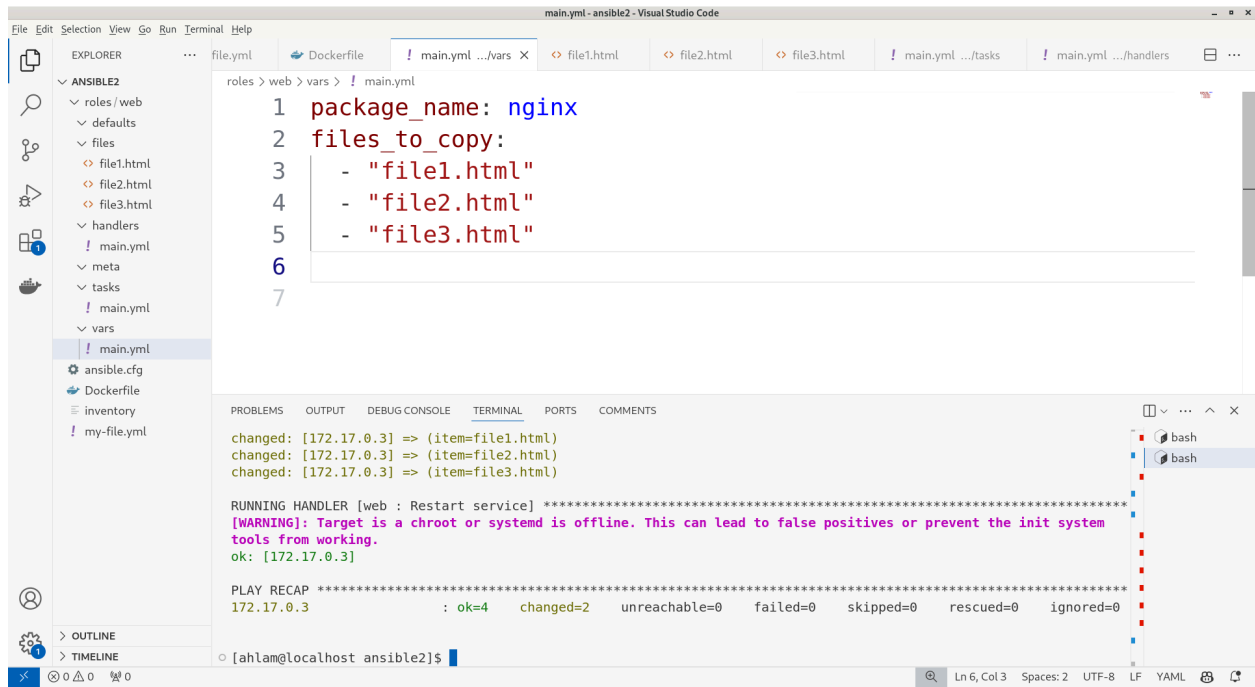
∨ roles / web
  ∨ defaults
  ∨ files
    ◇ file1.html
    ◇ file2.html
    ◇ file3.html
  ∨ handlers
    ! main.yml
  ∨ meta
  ∨ tasks
    ! main.yml
  ∨ vars
    ! main.yml
  ⚙ ansible.cfg
  🐳 Dockerfile
  ≡ inventory
  ! my-file.yml

PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL   PORTS   COMMENTS

```
changed: [172.17.0.3] => (item=file3.html)

RUNNING HANDLER [web : Restart service] ***************************************************
[WARNING]: Target is a chroot or systemd is offline. This can lead to false positives or prevent the init system
tools from working.
ok: [172.17.0.3]

PLAY RECAP **************************************************************************
172.17.0.3                 : ok=4    changed=2    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0
```

> OUTLINE
> TIMELINE

○ [ahlam@localhost ansible2]$ |

Ln 9, Col 1   Spaces: 2   UTF-8   LF   YAML

Vars

File Edit Selection View Go Run Terminal Help

EXPLORER

! file.yml   🐳 Dockerfile   ! main.yml .../vars ✕   ◇ file1.html   ◇ file2.html   ◇ file3.html   ! main.yml .../tasks   ! main.yml .../handlers

∨ ANSIBLE2

roles > web > vars > ! main.yml

```yaml
1  package_name: nginx
2  files_to_copy:
3    - "file1.html"
4    - "file2.html"
5    - "file3.html"
6
7
```

∨ roles / web
  ∨ defaults
  ∨ files
    ◇ file1.html
    ◇ file2.html
    ◇ file3.html
  ∨ handlers
    ! main.yml
  ∨ meta
  ∨ tasks
    ! main.yml
  ∨ vars
    ! main.yml
  ⚙ ansible.cfg
  🐳 Dockerfile
  ≡ inventory
  ! my-file.yml

PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL   PORTS   COMMENTS

```
changed: [172.17.0.3] => (item=file1.html)
changed: [172.17.0.3] => (item=file2.html)
changed: [172.17.0.3] => (item=file3.html)

RUNNING HANDLER [web : Restart service] ***************************************************
[WARNING]: Target is a chroot or systemd is offline. This can lead to false positives or prevent the init system
tools from working.
ok: [172.17.0.3]

PLAY RECAP **************************************************************************
172.17.0.3                 : ok=4    changed=2    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0
```

> OUTLINE
> TIMELINE

○ [ahlam@localhost ansible2]$ |

Ln 6, Col 3   Spaces: 2   UTF-8   LF   YAML

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 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)

Task

var

Template

File Edit Selection View Go Run Terminal Help

EXPLORER ···

! my-file.yml   🐳 Dockerfile   ! main.yml .../vars ●   🎫 template_file.j2 ●   ! main.yml .../tasks   ! main.yml .../handlers   ⚙ ansible.cfg

roles › web › templates › 🎫 template_file.j2

```
 1   # This is a template file
 2   # Template message: {{ template_message }}
 3
 4   # Sample configuration content
 5   server {
 6       listen 80;
 7       server_name localhost;
 8
 9       location / {
10           root /var/www/html;
11           index index.html index.htm;
12       }
13   }
14   ```
```

ANSIBLE2
- roles / web
  - defaults
  - files
    - file1.html
    - file2.html
    - file3.html
  - handlers
    - ! main.yml
  - meta
  - tasks
    - ! main.yml
  - templates
    - 🎫 template_file.j2
  - vars
    - ! main.yml
  - ⚙ ansible.cfg
  - 🐳 Dockerfile
  - inventory
  - ! my-file.yml

PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL   PORTS   COMMENTS

```
● [ahlam@localhost web]$ cd ..
⊗ [ahlam@localhost roles]$ ansible-playbook my-file.yml -K
  ERROR! the playbook: my-file.yml could not be found
● [ahlam@localhost roles]$ cd ..
○ [ahlam@localhost ansible2]$
```

bash
bash

Ln 14, Col 1   Spaces: 4   UTF-8   LF   Jinja

File Edit Selection View Go Run Terminal Help

EXPLORER ···

! my-file.yml   🐳 Dockerfile   ! main.yml .../vars   🎫 template_file.j2 ●   ! main.yml .../tasks   ! main.yml .../handlers ✕   ⚙ ansible.cfg

roles › web › handlers › ! main.yml

```
 1   ---
 2   - name: Copy configuration files
 3     copy:
```

ANSIBLE2
- roles / web
  - defaults
  - files
    - file1.html
    - file2.html
    - file3.html
  - handlers
    - ! main.yml
  - meta
  - tasks
    - ! main.yml
  - templates
    - 🎫 template_file.j2
  - vars
    - ! main.yml
  - ⚙ ansible.cfg
  - 🐳 Dockerfile
  - inventory
  - ! my-file.yml

PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL   PORTS   COMMENTS

```
● [ahlam@localhost ansible2]$ ansible-playbook my-file.yml -K
BECOME password:

PLAY [Deploy Web Role] *********************************************************

TASK [Gathering Facts] *********************************************************
ok: [172.17.0.3]

TASK [web : Install package from variables] ************************************
changed: [172.17.0.3]

TASK [web : Copy template file to host] ***************************************
ok: [172.17.0.3]

RUNNING HANDLER [web : Copy configuration files] ******************************
ok: [172.17.0.3] => (item=file1.html)
ok: [172.17.0.3] => (item=file2.html)
ok: [172.17.0.3] => (item=file3.html)

PLAY RECAP ********************************************************************
172.17.0.3                 : ok=4    changed=1    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0

○ [ahlam@localhost ansible2]$
```

bash
bash

Ln 17, Col 5   Spaces: 2   UTF-8   LF   YAML