

## ANSIBLE ASSIGNMENT 4

**Name:** Vikram

**Assignment:** Manage Static Files in Ansible Role (Replace index.html on NGINX Slave)

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### Problem Statement

Use the existing Ansible setup from Assignment 3 and:

1. Add an index.html file in the *files* directory of the NGINX role
  2. Replace the default NGINX index page on slave2 only
  3. Ensure this is done only via the role\_nginx role
- 

### Environment Used

master-node → Controls Ansible & roles

- slave1 → Apache node
- slave2 → NGINX node (target machine for index.html replacement)

Inventory already configured as:

[slave1]

10.0.15.253 ansible\_user=ubuntu ansible\_ssh\_private\_key\_file=/home/ubuntu/.ssh/mykey.pem

[slave2]

10.0.11.55 ansible\_user=ubuntu ansible\_ssh\_private\_key\_file=/home/ubuntu/.ssh/mykey.pem

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### TASK 1 — Create files folder and add custom index.html

#### Step 1 — Go to the NGINX role directory

`cd ~/roles/role_nginx`

#### Step 2 — Create the files directory

`mkdir -p files`

#### Step 3 — Add custom index.html

Create the file:

`nano files/index.html`

Paste the content:

```
<h1>Welcome to Vikram's Custom NGINX Page!</h1>
```

```
<p>This page was deployed using Ansible Role Automation.</p>
```

Save & exit.

```
ubuntu@ip-10-0-6-254:~$ ls
addtext.sh  roles  roles-playbook.yml  run-script.yml
ubuntu@ip-10-0-6-254:~$ cd roles
ubuntu@ip-10-0-6-254:~/roles$ ls
role_apache  role_nginx
ubuntu@ip-10-0-6-254:~/roles$ cd role_nginx
ubuntu@ip-10-0-6-254:~/roles/role_nginx$ ls
README.md  defaults  files  handlers  main.yml  meta  tasks  templates  tests  vars
ubuntu@ip-10-0-6-254:~/roles/role_nginx$ mkdir -p files
ubuntu@ip-10-0-6-254:~/roles/role_nginx$ nano files/index.html
```

---

GNU nano 7.2

```
<h1>Welcome to Vikram's Custom NGINX Page!</h1>
<p>This page was deployed using Ansible Role Automation.</p>
```

---

## TASK 2 — Modify NGINX role to replace the default index.html

Edit role tasks:

```
nano tasks/main.yml
```

Your file should contain EXACTLY:

---

```
- name: Install NGINX
```

```
  apt:
```

```
    name: nginx
```

```
    state: present
```

```
    update_cache: yes
```

```
- name: Start NGINX service
```

```
  service:
```

```
    name: nginx
```

```
    state: started
```

```
    enabled: yes
```

- name: Replace default NGINX index.html

copy:

src: index.html

dest: /var/www/html/index.html

owner: www-data

group: www-data

mode: '0644'

This ensures the index.html replaces the one on slave2 only

Because the role is only applied to slave2 in your main playbook

```
ubuntu@ip-10-0-6-254:~/roles/role_nginx$ nano tasks/main.yml
ubuntu@ip-10-0-6-254:~/roles/role_nginx$
```

---

GNU nano 7.2

```
---
- name: Install NGINX
  apt:
    name: nginx
    state: present
    update_cache: yes

- name: Start NGINX service
  service:
    name: nginx
    state: started
    enabled: yes

- name: Replace default NGINX index.html
  copy:
    src: index.html
    dest: /var/www/html/index.html
    owner: www-data
    group: www-data
    mode: '0644'

# tasks file for role_nginx
```

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## TASK 3 — Update the roles-playbook.yml

Cd ~

Edit:

nano roles-playbook.yml

Final version must be:

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- name: Install Apache on Slave1

hosts: slave1

become: yes

roles:

- role\_apache

- name: Install NGINX on Slave2 with custom index.html

hosts: slave2

become: yes

roles:

- role\_nginx

```
ubuntu@ip-10-0-6-254:~/roles/role_nginx$ cd ..
ubuntu@ip-10-0-6-254:~/roles$ cd ..
ubuntu@ip-10-0-6-254:~$ nano roles-playbook.yml
```

---

GNU nano 7.2

```
---
- name: Install Apache on Slave1
  hosts: slave1
  become: yes
  roles:
    - role_apache

- name: Install NGINX on Slave2 with custom index.html
  hosts: slave2
  become: yes
  roles:
    - role_nginx
```

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## TASK 4 — Run the playbook

[ansible-playbook roles-playbook.yml](#)

Expected output:

[TASK \[Replace default NGINX index.html\] => changed](#)

```
ubuntu@ip-10-0-6-254:~$ ansible-playbook roles-playbook.yml

PLAY [Install Apache on Slave1] *****

TASK [Gathering Facts] *****
ok: [10.0.15.253]

TASK [role_apache : Install Apache2] *****
ok: [10.0.15.253]

TASK [role_apache : Start Apache2 service] *****
ok: [10.0.15.253]

PLAY [Install NGINX on Slave2 with custom index.html] *****

TASK [Gathering Facts] *****
ok: [10.0.11.55]

TASK [role_nginx : Install NGINX] *****
ok: [10.0.11.55]

TASK [role_nginx : Start NGINX service] *****
ok: [10.0.11.55]

TASK [role_nginx : Replace default NGINX index.html] *****
changed: [10.0.11.55]
```

i-02649cf4a25091ffd (ansible master)

PublicIPs: 98.81.74.63 PrivateIPs: 10.0.6.254

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## TASK 5 — Verify on slave2

Run:

[curl localhost](#)

You should now see:

[Welcome to Vikram's Custom NGINX Page!](#)

[This page was deployed using Ansible Role Automation.](#)

```
ubuntu@ip-10-0-11-55:~$ curl localhost
<h1>Welcome to Vikram's Custom NGINX Page!</h1>
<p>This page was deployed using Ansible Role Automation.</p>
ubuntu@ip-10-0-11-55:~$ █
```

**i-Odde7c0f6be97fe6f (slave2)**

PublicIPs: 3.80.238.215 PrivateIPs: 10.0.11.55

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## Conclusion

In this assignment:

Reused existing Ansible multi-node cluster

Enhanced the NGINX role with *files* directory

Replaced default index.html using the copy module

Deployment correctly affected only the NGINX slave

Fully automated file deployment using roles