

Lab - Using Custom ansible role in playbook

```
cd ~/ansible-sep-2023
git pull
cd Day5/ansible-role
ansible-playbook playbook.yml
```

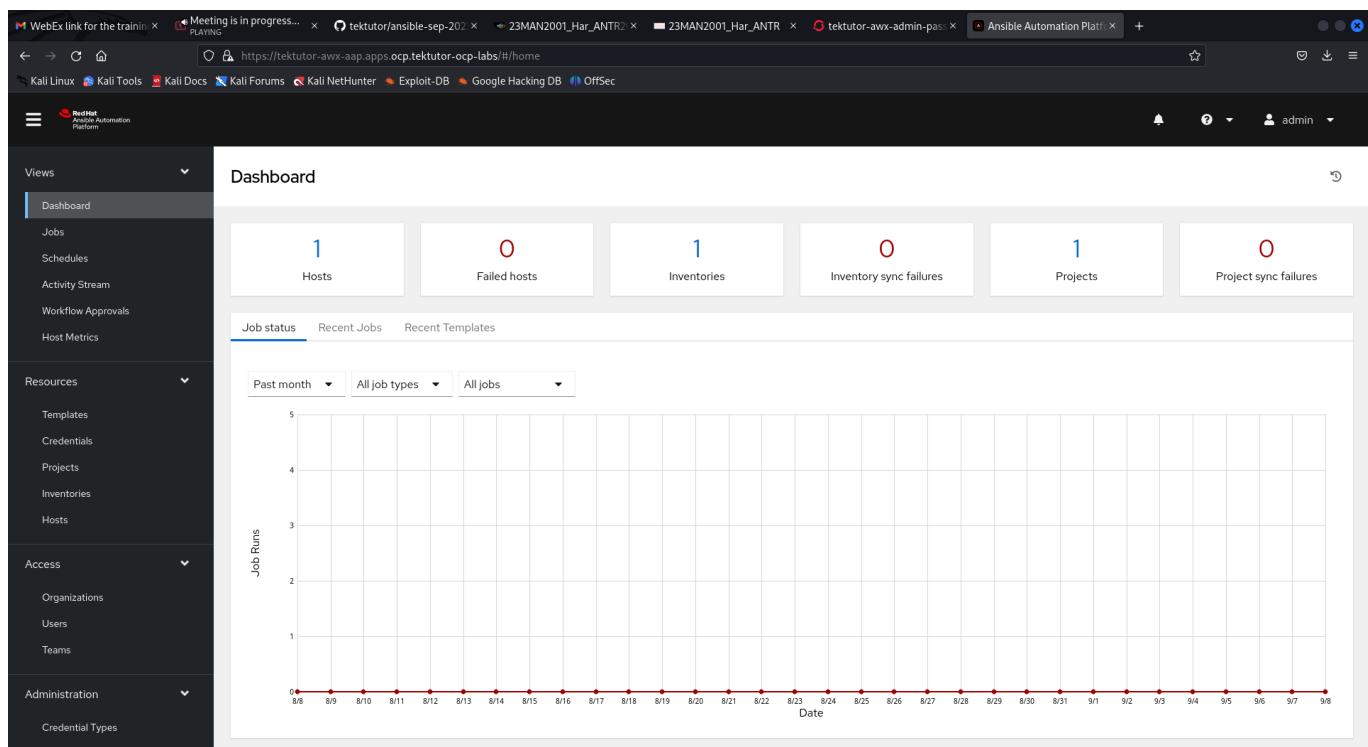
Lab - Using Custom facts

```
cd ~/ansible-sep-2023
git pull
cd Day5/Custom-Facts
ansible-playbook install-facts-playbook.yml
```

Installing Ansible Tower opensource

https://medium.com/@jegan_50867/installing-ansible-tower-awx-e46d5231357d

Ansible Tower



What is AWX ?

- is the opensource Ansible Tower
- this supports Web Interface
- we can't develop ansible playbook in AWX
- already existing playbook we can import the playbook from GitHub or some version control as Projects

- benefits
 - we don't need to install ansible locally to run the playbook
 - user management is possible in AWX
 - you could create multiple users with different access and add to teams
 - it is possible which team members can view/execute which playbook
 - you can check the history playbook execution logs
 - you can access Ansible AWX Web console from any remote machine using normal web browsers without needing to install any software locally
- drawbacks
 - in case you face any technical challenge, you won't get any support from Red Hat/IBM
 - only community support you would, this might take time to get a response, or you may not get any response at all
 - you are on your own in case no response comes from the community

What is Red Hat Ansible Tower ?

- this is an enterprise product from Red Hat
- developed on top of opensource AWX
- hence, supports all the features of AWX within Red Hat Ansible Tower
- benefits
 - you get world-wide support from Red Hat (an IBM company)
 - Web console
 - no need to install ansible locally to execute playbooks
 - Ansible is available to you over web browser
 - Many teams can use the same Ansible Tower organization wide
- drawbacks
 - can't develop playbook with Ansible Tower

Demo - Ansible Tower Demo

Red Hat Ansible Tower Dashboard looks like as shown below

The screenshot shows the Ansible Tower dashboard with the following key elements:

- Left sidebar (Views):** Includes links for Dashboard, Jobs, Schedules, Activity Stream, Workflow Approvals, Host Metrics, Resources (Templates, Credentials, Projects, Inventories, Hosts), Access (Organizations, Users, Teams), and Administration (Credential Types, Notifications).
- Dashboard Summary:** Six cards showing counts: 1 Hosts, 0 Failed hosts, 1 Inventories, 0 Inventory sync failures, 1 Projects, and 0 Project sync failures.
- Job status:** A chart titled "Job Runs" showing the number of runs per day from August 1st to 31st. The chart shows a single run on each day.

Creating a Project in Ansible Tower

The screenshot shows the Ansible Tower Projects page with the following details:

- Left sidebar (Views):** Includes links for Dashboard, Jobs, Schedules, Activity Stream, Workflow Approvals, Host Metrics, Resources (Templates, Credentials, Projects, Inventories, Hosts), Access (Organizations, Users, Teams), and Administration (Credential Types, Notifications).
- Projects List:** A table showing one project:

Name	Status	Type	Revision	Actions
Demo Project	Successful	Git	347e44f	

Click on Add

The screenshot shows the 'Create New Project' page within the Red Hat OpenShift Automation Platform. The left sidebar is dark-themed and includes sections for Views (Dashboard, Jobs, Schedules, Activity Stream, Workflow Approvals, Host Metrics), Resources (Templates, Credentials, Projects, Inventories, Hosts), Access (Organizations, Users, Teams), and Administration (Credential Types, Notifications). The 'Projects' section is currently selected. The main content area has a light background and displays a form with fields: 'Name *' (empty), 'Description' (empty), 'Organization *' (empty), 'Execution Environment *' (empty), 'Source Control Type *' (empty dropdown), and 'Content Signature Validation Credential *' (empty dropdown). At the bottom are 'Save' and 'Cancel' buttons.

Click on Save

The screenshot shows the same 'Create New Project' page after filling in the fields. The 'Name *' field contains 'TekTutor Training Repo', the 'Source Control Type *' dropdown is set to 'Git', and the 'Source Control URL *' field contains 'https://github.com/tektutor/ansible-aug-2023.git'. The 'Source Control Branch/Tag/Commit' field contains 'main'. The 'Save' button at the bottom is now highlighted in blue, indicating it is the next action to be taken.

The screenshot shows the Red Hat Ansible Automation Platform interface. The left sidebar is collapsed, and the main content area displays the 'Details' page for a project named 'TekTutor Training Repo'. The 'Details' tab is selected, showing the following configuration:

Last Job Status	Waiting	Name	TekTutor Training Repo	Organization	Default
Source Control Type	Git	Source Control Revision	Sync for revision	Source Control URL	https://github.com/tekktutor/ansible-aug-2023.git
Source Control Branch	main	Cache Timeout	0 Seconds	Project Base Path	/var/lib/awx/projects
Playbook Directory	_9_tektutor_training_repo	Created	9/1/2023, 4:05:41 PM by admin	Last Modified	9/1/2023, 4:05:41 PM by admin

At the bottom of the table, there are three buttons: 'Edit', 'Cancel Sync', and 'Delete'.

This screenshot shows the same 'Details' page for the 'TekTutor Training Repo' project, but with a successful sync operation. The 'Last Job Status' field now shows 'Successful'. The 'Source Control Revision' field has been updated to 'd3747f6'. The rest of the configuration remains the same as in the previous screenshot.

The screenshot shows the Ansible Automation Platform interface. On the left, there's a sidebar with 'Views' (Dashboard, Jobs, Schedules, Activity Stream, Workflow Approvals, Host Metrics), 'Resources' (Templates, Credentials, Projects, Inventories, Hosts), 'Access' (Organizations, Users, Teams), and 'Administration' (Credential Types, Notifications). The main area shows a job titled 'TekTutor Training Repo' with a green 'Successful' status. It has tabs for 'Back to Jobs', 'Details', and 'Output'. The 'Output' tab is selected, showing Stdout. The log output is as follows:

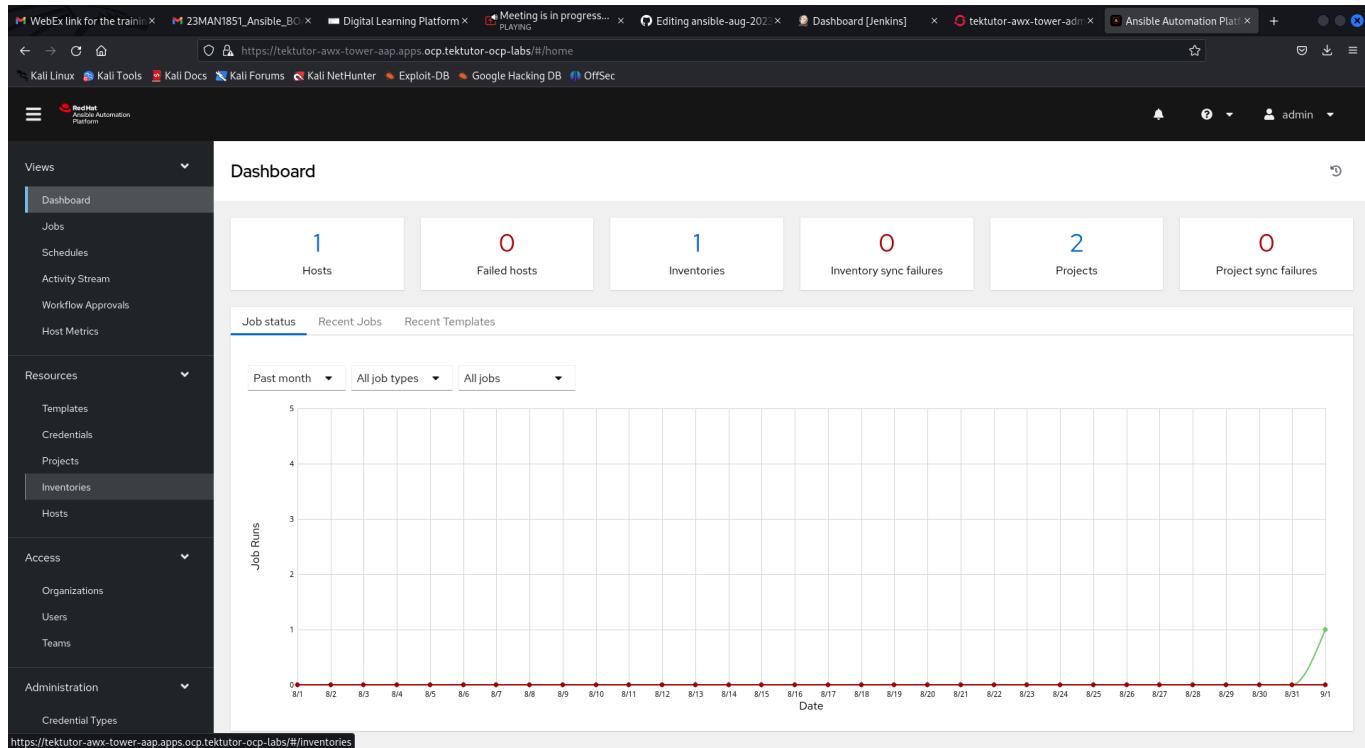
```

18 TASK [Warn about disabled content sync] *****
19 skipping: [localhost]
20
21 TASK [End play due to disabled content sync] *****
22 skipping: [localhost]
23
24 TASK [Fetch galaxy roles from requirements.(yml/yaml)] *****
25 [WARNING]: Unable to find
26 '/var/lib/awx/projects/_9_tektutor_training_repo/roles' in expected
27 paths (use -vvvv to see paths)
28 skipping: [localhost]
29
30 TASK [Fetch galaxy collections from collections/requirements.(yml/yaml)] *****
31 [WARNING]: Unable to find
32 '/var/lib/awx/projects/_9_tektutor_training_repo/collections' in expected
33 paths (use -vvvv to see paths)
34 skipping: [localhost]
35
36 PLAY RECAP *****
37 localhost : ok=3    changed=1   unreachable=0   failed=0    skipped=3   rescued=0   ignored=0

```

We need create an inventory

Navigate Resources --> Inventory



Click on Add --> Add Inventory

The screenshot shows the Red Hat Automation Platform interface. The left sidebar is dark-themed and includes sections for Views, Dashboard, Jobs, Schedules, Activity Stream, Workflow Approvals, Host Metrics, Resources (Templates, Credentials, Projects, Inventories, Hosts), Access (Organizations, Users, Teams), Administration (Credential Types, Notifications), and a Red Hat logo. The 'Inventories' section is currently selected. The main content area is titled 'Inventories' and displays a table with one item: 'Demo Inventory'. The table columns are Name, Sync Status, Type, Organization, and Actions. The 'Sync Status' for 'Demo Inventory' is 'Disabled'. The 'Type' is 'Inventory' and the 'Organization' is 'Default'. The Actions column contains edit and delete icons. At the top of the table are search, add, and delete buttons. The bottom of the table shows pagination: '1-1 of 1 items' and '1 of 1 page'.

The number of hosts you have automated against is below your subscription count.

The screenshot shows the 'Create new inventory' form. The left sidebar is identical to the previous screenshot. The main content area is titled 'Create new inventory'. It has fields for 'Name *' (with a placeholder 'Inventory'), 'Description', and 'Organization *' (set to 'Default'). Below these are sections for 'Instance Groups' (with a search bar) and 'Labels' (with a dropdown menu). Under 'Options', there is a checkbox for 'Prevent Instance Group Fallback'. A 'Variables' section shows a table with one row (ID 1) and a 'YAML' tab selected. At the bottom are 'Save' and 'Cancel' buttons.

Click on Save

Create new inventory

Name * DockerInventory

Description

Organization * Default

Instance Groups

Labels

Options

Variables YAML JSON

Save Cancel

Inventories > DockerInventory

Details

Back to Inventories Details Access Groups Hosts Sources Jobs Job Templates

Name	DockerInventory	Type	Inventory	Organization	Default
Total hosts	0				

Variables YAML JSON

Created 9/1/2023, 4:08:59 PM by admin Last Modified 9/1/2023, 4:08:59 PM by admin

Edit Delete

Click on Hosts Tab

The screenshot shows the Red Hat Ansible Automation Platform web interface. The left sidebar is dark-themed and includes sections for Views, Dashboard, Jobs, Schedules, Activity Stream, Workflow Approvals, Host Metrics, Resources (Templates, Credentials, Projects), Inventories (selected), Hosts, Access (Organizations, Users, Teams), and Administration (Credential Types, Notifications). The main content area has a light background and displays the 'Inventories > DockerInventory > Hosts' path. The 'Hosts' tab is selected, indicated by a blue underline. Below the navigation bar are buttons for 'Name' (dropdown), 'Search' (magnifying glass icon), 'Add' (blue button), 'Run Command' (grey button), and 'Delete' (grey button). A central message states 'No Hosts Found' with a small server icon above it, and a sub-message below it says 'Please add Hosts to populate this list'.

Click on Add

The screenshot shows the 'Create new host' form within the Red Hat Ansible Automation Platform. The left sidebar is identical to the previous screenshot. The main content area shows the 'Inventories > DockerInventory > Hosts' path followed by 'Create new host'. The form has fields for 'Name' (with a red asterisk indicating it's required) and 'Description'. Below these fields is a 'Variables' section with tabs for 'YAML' (selected) and 'JSON'. A code editor window shows a YAML variable definition with two entries: '1' and '2'. At the bottom of the form are 'Save' and 'Cancel' buttons.

Views

- Dashboard
- Jobs
- Schedules
- Activity Stream
- Workflow Approvals
- Host Metrics

Resources

- Templates
- Credentials
- Projects
- Inventories**
- Hosts

Access

- Organizations
- Users
- Teams

Administration

- Credential Types
- Notifications

Host details

Back to Hosts Details Facts Groups Jobs

Ubuntu

Variables [YAML](#) [JSON](#)

```

1 ---
2 ansible_user: root
3 ansible_port: 3001
4 ansible_host: 192.168.1.108

```

[Edit](#) [Delete](#)

Created 9/1/2023, 4:10:44 PM by admin **Last Modified** 9/1/2023, 4:10:44 PM by admin

Repeat this process for Ubuntu2, CentOS1 and CentOS2 Containers

Views

- Dashboard
- Jobs
- Schedules
- Activity Stream
- Workflow Approvals
- Host Metrics

Resources

- Templates
- Credentials
- Projects
- Inventories**
- Hosts

Access

- Organizations
- Users
- Teams

Administration

- Credential Types
- Notifications

Hosts

Back to Inventories Details Access Groups Hosts Sources Jobs Job Templates

Name	Description	Related Groups	Actions
<input type="checkbox"/> Ubuntu			<input checked="" type="checkbox"/> On Edit

1-1 of 1 items << < > >> 1 of 1 page

Click on Save

The screenshot shows the Red Hat Ansible Automation Platform web interface. The left sidebar is dark-themed and includes sections for Views, Resources, Inventories (which is currently selected), Hosts, Access, and Administration. The main content area has a light background and displays a 'Create new host' form. The 'Name' field contains 'Ubuntu2'. Below it is a 'Variables' section with a YAML tab selected, showing the following configuration:

```
1 ---  
2 ansible_user: root  
3 ansible_port: 3002  
4 ansible_host: 192.168.1.108
```

At the bottom of the form are two buttons: a blue 'Save' button and a grey 'Cancel' button.

The screenshot shows the 'Host details' page for a host named 'Ubuntu2'. The host is currently active ('On'). The variables defined for this host are:

```
1 ---  
2 ansible_user: root  
3 ansible_port: 3002  
4 ansible_host: 192.168.1.108
```

Buttons for 'Edit' and 'Delete' are visible at the bottom of the variable list.

The screenshot shows the 'Hosts' list page for the 'DockerInventory' inventory. There are two hosts listed: 'Ubuntu1' and 'Ubuntu2', both of which are active ('On'). The table includes columns for Name, Description, Related Groups, and Actions.

click on Add

The screenshot shows the 'Create new host' page in the Red Hat Ansible Automation Platform. The left sidebar is dark-themed and includes sections for Views, Dashboard, Jobs, Schedules, Activity Stream, Workflow Approvals, Host Metrics, Resources, Templates, Credentials, Projects, Inventories (which is selected), Hosts, Access, Organizations, Users, Teams, Administration, Credential Types, and Notifications. The main content area has a light background and displays the 'Create new host' form. It includes fields for 'Name' (CentOS1) and 'Description'. Below these are tabs for 'Variables' (YAML, JSON) and a code editor containing the following YAML:

```
1 ---  
2 ansible_user: root  
3 ansible_port: 4001  
4 ansible_host: 192.168.1.108
```

At the bottom are 'Save' and 'Cancel' buttons.

Click on Save

The screenshot shows the 'Host details' page for the host 'CentOS1'. The left sidebar is identical to the previous screenshot. The main content area shows the host's details: Name (CentOS1), Created (9/1/2023, 4:13:58 PM by admin), and Last Modified (9/1/2023, 4:13:58 PM by admin). Below this are tabs for 'Back to Hosts' (selected), Details, Facts, Groups, and Jobs. The 'Details' tab shows the host's status as 'On'. The 'Variables' section contains the same YAML code as before. At the bottom are 'Edit' and 'Delete' buttons.

The screenshot shows the Red Hat Ansible Automation Platform web interface. The left sidebar is dark-themed and includes sections for Views, Resources, Access, and Administration. The 'Inventories' section under Resources is currently selected. The main content area shows a table titled 'Hosts' with three entries: 'CentOS1', 'Ubuntu1', and 'Ubuntu2'. Each entry has a checkbox, a 'Description' field, a 'Related Groups' column, and an 'Actions' column with a switch and edit icon. A search bar and a 'Run Command' button are at the top of the table. The bottom right of the table shows pagination: '1 - 3 of 3 items' and '1 of 1 page'.

Click on Add

The screenshot shows the 'Create new host' form within the Red Hat Ansible Automation Platform. The left sidebar is identical to the previous screenshot. The main form has a title 'Create new host' and a breadcrumb path 'Inventories > DockerInventory > Hosts'. It contains fields for 'Name' (set to 'CentOS2') and 'Description'. Below these is a 'Variables' section with tabs for 'YAML' (selected) and 'JSON'. A code editor shows the following YAML configuration:

```
1 ---  
2 ansible_user: root  
3 ansible_port: 4002  
4 ansible_host: 192.168.1.108|
```

Below the code editor is a note: 'Press Enter to edit. Press ESC to stop editing.' At the bottom are 'Save' and 'Cancel' buttons.

Click on Save

Host details

Back to Hosts Details Facts Groups Jobs

On

Name: CentOS2 Created: 9/1/2023, 4:15:02 PM by admin Last Modified: 9/1/2023, 4:15:02 PM by admin

Variables YAML JSON

```

1 ---
2 ansible_user: root
3 ansible_port: 4002
4 ansible_host: 192.168.1.108

```

Edit Delete

We are now done with the inventory creation

Inventories > DockerInventory Hosts

Back to Inventories Details Access Groups Hosts Sources Jobs Job Templates

<input type="checkbox"/>	Name	Description	Related Groups	Actions
<input type="checkbox"/>	CentOS1			<input checked="" type="checkbox"/> On
<input type="checkbox"/>	CentOS2			<input checked="" type="checkbox"/> On
<input type="checkbox"/>	Ubuntu1			<input checked="" type="checkbox"/> On
<input type="checkbox"/>	Ubuntu2			<input checked="" type="checkbox"/> On

1 - 4 of 4 items << < > >> 1 of 1 page

For the add your lab machine private key, we need to navigate to Resources --> Credentials menu on the left side of Ansible Tower

The screenshot shows the Red Hat Automation Platform web interface. The left sidebar is dark-themed and includes sections for Activity Stream, Workflow Approvals, Host Metrics, Resources (with 'Credentials' selected), Templates, Projects, Inventories, Hosts, Access (with 'Organizations' selected), Administration (with 'Credential Types' selected), and others. The main content area is titled 'Credentials' and lists two items:

Name	Type	Actions
Ansible Galaxy	Ansible Galaxy/Automation Hub API Token	[Edit] [Delete]
Demo Credential	Machine	[Edit] [Delete]

Pagination at the bottom indicates 1-2 of 2 items, with a single item per page.

Click on Add

The screenshot shows the 'Create New Credential' form within the Red Hat Automation Platform. The left sidebar is identical to the previous screenshot. The main content area is titled 'Create New Credential' and contains fields for Name, Description, Organization, and Credential Type. At the bottom are 'Save' and 'Cancel' buttons.

Name *	Description	Organization
<input type="text"/>	<input type="text"/>	<input type="text"/>

Credential Type *

Save Cancel

Copy the private key you generated while buiding the custom docker image

```
jegan@tektrutor: ~/ansible-aug-2023/Day3/loops
jegan@tektrutor: ~/Downloads
818e9114a9f9  tektutor/ansible-ubuntu-node:latest  "/usr/sbin/sshd -D"  11 seconds ago  Up 10 seconds  0.0.0.0:3003->22/tcp, 0.0.0.0:8003->80/tcp  ubuntu
u-003
791b20c71c51  tektutor/ansible-ubuntu-node:latest  "/usr/sbin/sshd -D"  12 seconds ago  Up 11 seconds  0.0.0.0:3002->22/tcp, 0.0.0.0:8002->80/tcp  ubuntu
u-002
9068e876f406  tektutor/ansible-ubuntu-node:latest  "/usr/sbin/sshd -D"  13 seconds ago  Up 12 seconds  0.0.0.0:3001->22/tcp, 0.0.0.0:8001->80/tcp  ubuntu
u-001

[jegan@tektrutor.org] - [~/ansible-aug-2023/Day3/loops]
$ cat ~/.ssh/id_rsa
-----BEGIN OPENSSH PRIVATE KEY-----
b38lbnNzaC1rZXktdjEAAAABG5vbmcUAAAEBm9uZQAAAAAAABAABlwAAAAdzc2gtcn
NhAAAAAWEAAQAAAYAEo0f0g8j2eHfgML9wBDNcxjsCimSg/BGOKo4JXZ8XfBsQzXk2CUWA
91av8uJsdax1/cj6xZc5eqPp4j+v5vedhxwA91KMUKHwFuZIh1u8q1HSJfyPpvobF06
vxn01FPazMuom/NKG0yv1z+w9pKHe7pLiasfnMwkeURLjs3vhxzkFUFgE15AE2zcQm6t
4zRxQXRmZ2gHxku4LedZVAtn2Tk/GFP91102pDC13JypreyvCeUA2X0wLSBo345yzENR
tuFd2G91rcBueu8Avf01mDwQgC0fmM7S2zqMTD16CKW0a0no9DEmrk8ChjG34+vuRdKGnKL
1kLTonDoFkbmB60V8HWij+BjHHXNwakNpIsim75XVBdgKRT2V3EDK8fabYm3k0dcRnKVY
ZONMeAPW0vFqInvM1krj3T3AoTFScSFmtyks119AAAFidI+MlwypjC8AAAAB3NzaC1yc2
EAAAGBANKoPI9nhxYDC/CAQzXMY7AopkqvwrJiq0CV2f3wbKmV5Ng1FgPzQL/LibHws
a5f3i+swX0XkD6e1I/+b73nVY8APdZDFCh8BbzS1dbvKPr+SX8j6vaGxd0r829JRTwMzF
KJvzShtMrI9hpxSh3n+654mkn5wjMJH1ES47N74ccyhVBYBneQBm9nEJuzeM0cUF0Tgdo
B15LuC3nWVNLZ9k5PxhT+ddnQwNiWKA3srwn1AN1wtMJUga+N+csxDubbhXdhvVNa3
Abnrlh07qZKz1lqqgYmoZEA+puhgC/Drc7wqPYsriOSII05dRizY3k59XXrjofbnstGXWj
9h7vAFxztZg8EIaJn5j00mc6jEW5eg1lmtJ6PQxJg5PAoYxt+Pz7kXShpyi5Zc0jw6BZG
5ugT0ffP987fzgYxx1zcGpDaSLou+V1QQ4CkU91dxAyHm2j5NHxEzy1WTjTBGg01tL
xaiJ7zJkYd09wKExUnEhZrcpLJdfQAAAAMBAEAAAGADJff6qILokUTV3VgNb/0WqJrMj
wzQr04Cf4YXw6wxpqusKdy0PS2xxPGYuw33DsMsxvJmfoshMgZpk90HOttB1neZB7
e15C5IxDoFkbmB60V8HWij+BjHHXNwakNpIsim75XVBdgKRT2V3EDK8fabYm3k0dcRnKVY
RUSo61GMD10y2M8K8fejIH/Q4PB3mHBK2uvige7Ym1HNieveyThcbGgjC2jEBxArSzytTs
Oc4mS8IYPTWYPB5jKBFSzyACR3A+V1VuH+Z0HdGnkSk098Nm5rcMo)Tb0C6VxdqRaA8K
gpW+zeAR5taPLEMdr5mc5hg4PR66m1gNt1mAEwdzXLkzUioH6mQZGly0aQIEAa/DEJvE6/
bwYEE50+Ofa6LE1jEz74ZQdmTy1aj1khkNrwpFGEivtmGwqKe93chpI81Lvp52kEKnmgHr
a198nPRxA4wQ6Jk4pwDQS1R4Vs62444A2Jyglqsjt0bCGju+6i+Cobmr/w+wfoAxAAA
whQRwGESE1C7qJyCLTGmi3tbQxpz05+uZ3VhXoFEJ17hxaTVBCNknQuSxuZbnD6Cj95K
K6htu9im5W1TuAekdkfK2wh5t1ifMGwv9n90t+fAIK1/1090600XFRe656Viv9vwK+117Hxn9
```

```
jegan@tektrutor: ~/ansible-aug-2023/Day3/loops
jegan@tektrutor: ~/Downloads
tuFd2G9U1rcBueu8Avf01mDwQgC0fmM7S2zqMTD16CKW0a0no9DEmrk8ChjG34+vuRdKGnKL
1kLTonDoFkbmB60V8HWij+BjHHXNwakNpIsim75XVBdgKRT2V3EDK8fabYm3k0dcRnKVY
ZONMeAPW0vFqInvM1krj3T3AoTFScSFmtyks119AAAFidI+MlwypjC8AAAAB3NzaC1yc2
EAAAGBANKoPI9nhxYDC/CAQzXMY7AopkqvwrJiq0CV2f3wbKmV5Ng1FgPzQL/LibHws
a5f3i+swX0XkD6e1I/+b73nVY8APdZDFCh8BbzS1dbvKPr+SX8j6vaGxd0r829JRTwMzF
KJvzShtMrI9hpxSh3n+654mkn5wjMJH1ES47N74ccyhVBYBneQBm9nEJuzeM0cUF0Tgdo
B15LuC3nWVNLZ9k5PxhT+ddnQwNiWKA3srwn1AN1wtMJUga+N+csxDubbhXdhvVNa3
Abnrlh07qZKz1lqqgYmoZEA+puhgC/Drc7wqPYsriOSII05dRizY3k59XXrjofbnstGXWj
9h7vAFxztZg8EIaJn5j00mc6jEW5eg1lmtJ6PQxJg5PAoYxt+Pz7kXShpyi5Zc0jw6BZG
5ugT0ffP987fzgYxx1zcGpDaSLou+V1QQ4CkU91dxAyHm2j5NHxEzy1WTjTBGg01tL
xaiJ7zJkYd09wKExUnEhZrcpLJdfQAAAAMBAEAAAGADJff6qILokUTV3VgNb/0WqJrMj
wzQr04Cf4YXw6wxpqusKdy0PS2xxPGYuw33DsMsxvJmfoshMgZpk90HOttB1neZB7
e15C5IxDoFkbmB60V8HWij+BjHHXNwakNpIsim75XVBdgKRT2V3EDK8fabYm3k0dcRnKVY
RUSo61GMD10y2M8K8fejIH/Q4PB3mHBK2uvige7Ym1HNieveyThcbGgjC2jEBxArSzytTs
Oc4mS8IYPTWYPB5jKBFSzyACR3A+V1VuH+Z0HdGnkSk098Nm5rcMo)Tb0C6VxdqRaA8K
gpW+zeAR5taPLEMdr5mc5hg4PR66m1gNt1mAEwdzXLkzUioH6mQZGly0aQIEAa/DEJvE6/
bwYEE50+Ofa6LE1jEz74ZQdmTy1aj1khkNrwpFGEivtmGwqKe93chpI81Lvp52kEKnmgHr
a198nPRxA4wQ6Jk4pwDQS1R4Vs62444A2Jyglqsjt0bCGju+6i+Cobmr/w+wfoAxAAA
whQRwGESE1C7qJyCLTGmi3tbQxpz05+uZ3VhXoFEJ17hxaTVBCNknQuSxuZbnD6Cj95K
K6htu9im5W1TuAekdkfK2wh5t1ifMGwv9n90t+fAIK1/1090600XFRe656Viv9vwK+117Hxn9
```

```
[jegan@tektrutor.org] - [~/ansible-aug-2023/Day3/loops]
$ cat .ssh/id_rsa
-----END OPENSSH PRIVATE KEY-----
```

Paste

The screenshot shows the 'Create New Credential' page in the Red Hat Ansible Automation Platform. The left sidebar is collapsed, and the main area displays the 'Create New Credential' form. The 'Name' field is set to 'LabMachinePrivateKey'. The 'Credential Type' is selected as 'Machine'. In the 'Type Details' section, the 'Username' is 'jegan'. The 'SSH Private Key' field contains a long string of characters, starting with '-----BEGIN OPENSSH PRIVATE KEY-----' and ending with '-----END OPENSSH PRIVATE KEY-----'. The 'Signed SSH Certificate' section is empty.

This screenshot shows the same 'Create New Credential' page as the previous one, but with a different SSH private key. The 'SSH Private Key' field now contains a different long string of characters, starting with 'GY9UkFnCulbAf+MZh7ofzkGjM3/wXzKz0UTF8KKt8JvDfkYhkT6gmNCkJlJ/TpDzJMA' and ending with 'gNHNFOgDO/h20AAAQamVnYW5AdgVrdHV0b3IBAgMEBQ=='. The rest of the form and interface are identical to the first screenshot.

Click on Save

Credentials > LabMachinePrivateKey

Details

Name	LabMachinePrivateKey	Credential Type	Machine	Username	jegan
SSH Private Key	Encrypted	Created	9/1/2023, 4:21:37 PM by admin	Last Modified	9/1/2023, 4:21:37 PM by admin

Edit Delete

We need to create the Job Template

Templates

Name	Type	Organization	Last Ran	Actions
Demo Job Template	Job Template	Default		

1-1 of 1 items 1 of 1 page

Click on Add --> Add Job Template

The screenshot shows the 'Templates' page in the Red Hat Ansible Automation Platform. A context menu is open over a row labeled 'Demo Job Template'. The menu options are 'Add job template' and 'Add workflow template'. The left sidebar contains a navigation menu with sections: Views, Resources, and Administration. Under Resources, 'Templates' is selected. Other options include Credentials, Projects, Inventories, Hosts, Access, Organizations, Users, Teams, and various sub-sections under Administration.

The screenshot shows the 'Create New Job Template' form. The form fields are as follows:

- Name ***: A text input field.
- Description**: A text input field.
- Job Type * @**: A dropdown menu set to "Run".
- Inventory * @**: A search input field.
- Project * @**: A search input field.
- Execution Environment @**: A search input field.
- Playbook * @**: A dropdown menu labeled "Select a playbook".
- Credentials @**: A search input field.
- Labels @**: A text input field.
- Variables @**: A section with tabs for "YAML" (selected) and "JSON". It contains two numbered rows: 1 and 2.

The left sidebar is identical to the one in the previous screenshot, showing the same navigation categories and selected 'Templates' option.

Select the Inventory we created in the previous steps and click on select

The screenshot shows the 'Create New Job Template' page. On the left, there's a sidebar with various navigation options like Views, Dashboard, Jobs, Schedules, Activity Stream, etc. The 'Templates' option is selected. In the main area, there's a 'Select Inventory' dialog. It has a 'Selected' dropdown set to 'DockerInventory'. Below it is a list of inventories: 'Demo Inventory' and 'DockerInventory', with 'DockerInventory' being the selected item. At the bottom of the dialog are 'Select' and 'Cancel' buttons.

Select the Project we created in the previous steps and click on select

The screenshot shows the 'Create New Job Template' page. The sidebar on the left is identical to the previous screenshot. In the main area, there's a 'Select Project' dialog. It has a 'Selected' dropdown set to 'TekTutor Training Repo'. Below it is a list of projects: 'Demo Project' and 'TekTutor Training Repo', with 'TekTutor Training Repo' being the selected item. At the bottom of the dialog are 'Select' and 'Cancel' buttons.

Notice, the playbooks from the TekTutor Training Repository are listed

The screenshot shows the 'Create New Job Template' form. The 'Playbook' dropdown is open, showing a list of playbooks from the 'TekTutor Training Repo'. The selected playbook is 'Day2/playbooks/install-nginx-playbook.yml'.

Playbook	Action
Day2/playbooks/install-nginx-playbook.yml	<input type="checkbox"/> Prompt on launch
Day2/playbooks/ping-playbook.yml	<input type="checkbox"/> Prompt on launch
Day3/cloning-github-repo/clone-github-repo-playbook.yml	<input type="checkbox"/> Prompt on launch
Day3/git-config/playbook.yml	<input type="checkbox"/> Prompt on launch
Day3/invoke-playbook-from-playbook/playbook.yml	<input type="checkbox"/> Prompt on launch
Day3/loops/build-docker-image-playbook.yml	<input type="checkbox"/> Prompt on launch
Day3/loops/dictionary.yml	<input type="checkbox"/> Prompt on launch
Day3/loops/lists-var-playbook.yml	<input type="checkbox"/> Prompt on launch
Day3/loops/provision-docker-containers-playbook.yml	<input type="checkbox"/> Prompt on launch

Select the playbook you wish to run

The screenshot shows the 'Create New Job Template' form. The 'Playbook' dropdown is open, showing a list of playbooks from the 'TekTutor Training Repo'. The selected playbook is 'Day4/playbooks/after-refactoring/install-nginx-playbook.yml'.

Playbook	Action
Day4/playbooks/after-refactoring/install-nginx-playbook.yml	<input type="checkbox"/> Prompt on launch
Day4/ansible-docker-dynamic-inventory/ping.yml	<input type="checkbox"/> Prompt on launch
Day4/custom-ansible-module/playbook.yml	<input type="checkbox"/> Prompt on launch
Day4/custom-role/nginx/handlers/main.yml	<input type="checkbox"/> Prompt on launch
Day4/custom-role/playbook.yml	<input type="checkbox"/> Prompt on launch
Day4/playbooks/after-refactoring/install-nginx-playbook.yml	<input type="checkbox"/> Prompt on launch
Day4/playbooks/before-refactoring/install-nginx-playbook.yml	<input type="checkbox"/> Prompt on launch
Day4/vault/login-credentials.yml	<input type="checkbox"/> Prompt on launch
Day4/vault/mysql-login-credentials.yml	<input type="checkbox"/> Prompt on launch
Day4/vault/playbook.yml	<input type="checkbox"/> Prompt on launch

Select the Credentials

The screenshot shows the 'Create New Job Template' interface. On the left, a sidebar navigation includes 'Views', 'Dashboard', 'Jobs', 'Schedules', 'Activity Stream', 'Workflow Approvals', 'Host Metrics', 'Resources' (selected), 'Templates' (selected), 'Credentials', 'Projects', 'Inventories', 'Hosts', 'Access' (Organizations, Users, Teams), 'Administration' (Credential Types, Notifications), and 'Notifications'. The main area is titled 'Create New Job Template' and contains fields for 'Name' (Invoke Install Nginx Playbook), 'Description', 'Job Type' (Run), 'Inventory' (DockerInventory), 'Project' (TekTutor Training Repo), 'Playbook' (Day4/playbooks/after-refactoring/install-nginx-playbook...), 'Credentials' (SSH: LabMachinePrivateKey selected), 'Labels', and 'Variables' (YAML, JSON). A modal window titled 'Select Credentials' is open, showing a list of credentials under the category 'Machine'. Two options are listed: 'Demo Credential' and 'LabMachinePrivateKey', with 'LabMachinePrivateKey' selected.

The screenshot shows the 'Create New Job Template' interface with the following filled-in fields: Name (Invoke Install Nginx Playbook), Description (empty), Job Type (Run), Inventory (DockerInventory), Project (TekTutor Training Repo), Playbook (Day4/playbooks/after-refactoring/install-nginx-playbook...), Credentials (SSH: LabMachinePrivateKey), Labels (empty), and Variables (YAML tab selected). The sidebar and background UI elements are identical to the previous screenshot.

Click on Save button

The screenshot shows the 'Templates' section of the Red Hat Automation Platform. The 'Job Template' form is open, with the following configuration:

- Forks:** 0
- Prompt on launch:**
- Limit:** 0
- Prompt on launch:**
- Verbosity:** 0 (Normal)
- Prompt on launch:**
- Job Slicing:** 1
- Prompt on launch:**
- Timeout:** 0
- Prompt on launch:**
- Show Changes:** Off
- Prompt on launch:**
- Instance Groups:** (Search bar)
- Job Tags:** (Search bar)
- Skip Tags:** (Search bar)
- Prompt on launch:**
- Options:**
 - Privilege Escalation
 - Provisioning Callbacks
 - Enable Webhook
 - Concurrent Jobs
 - Enable Fact Storage
 - Prevent Instance Group Fallback

At the bottom, there are 'Save' and 'Cancel' buttons.

Job Template is created successfully now

The screenshot shows the 'Details' tab for the 'Invoke Install Nginx Playbook' job template. The job details are as follows:

Name	Invoke Install Nginx Playbook	Job Type	run	Organization	Default
Inventory	DockerInventory	Project	TekTutor Training Repo	Execution Environment	Default execution environment
Playbook	Day4/playbooks/after-refactoring/install-nginx-playbook.yml	Forks	0	Verbosity	0 (Normal)
Timeout	0	Show Changes	Off	Job Slicing	1
Created	9/1/2023, 4:27:47 PM by admin	Last Modified	9/1/2023, 4:27:47 PM by admin		
Credentials	SSH: LabMachinePriv...				
Variables	(YAML, JSON)				

At the bottom, there are 'Edit', 'Launch', and 'Delete' buttons.

The number of hosts you have automated against is below your subscription count. To run the playbook, click

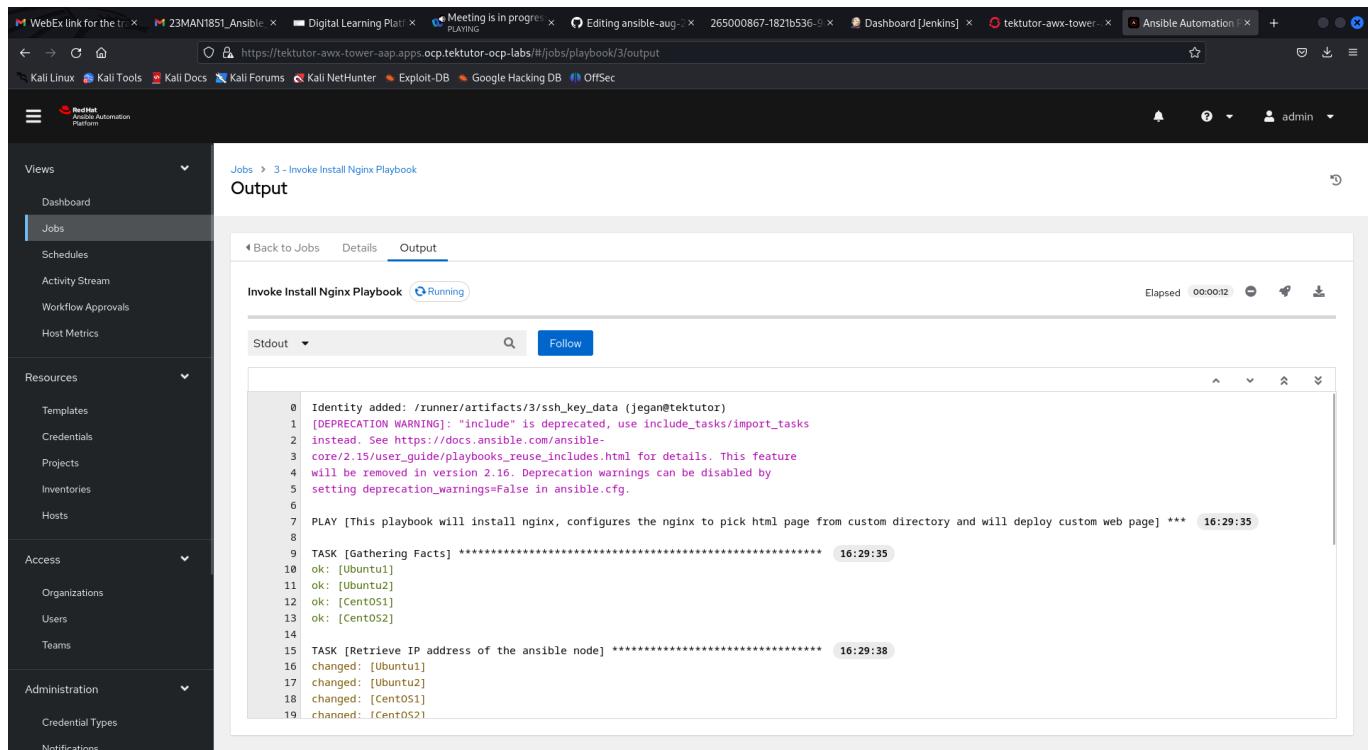
on the Launch button

The screenshot shows the Red Hat Ansible Automation Platform web interface. The left sidebar is dark-themed and includes sections for Views, Dashboard, Jobs, Schedules, Activity Stream, Workflow Approvals, Host Metrics, Resources (with 'Templates' selected), Credentials, Projects, Inventories, Hosts, Access (with 'Organizations' selected), and Administration (with 'Credential Types' selected). The main content area has a light background and displays the 'Details' tab for a template named 'Invoke Install Nginx Playbook'. The template details include:

Name	Value	Job Type	Organization
Name	Invoke Install Nginx Playbook	run	Default
Inventory	DockerInventory	Project	TekTutor Training Repo
Playbook	Day4/playbooks/after-refactoring/install-nginx-playbook.yml	Forks	0
Timeout	0	Show Changes	Off
Created	9/1/2023, 4:27:47 PM by admin	Last Modified	9/1/2023, 4:27:47 PM by admin
Credentials	SSH:LabMachinePriv...	Variables	YAML JSON

At the bottom of the template details section are three buttons: 'Edit', 'Launch', and 'Delete'. The 'Launch' button is highlighted in blue.

The screenshot shows the Red Hat Ansible Automation Platform web interface. The left sidebar is identical to the previous screenshot. The main content area shows the 'Output' tab for a job named '3 - Invoke Install Nginx Playbook' which is currently 'Running'. The output pane displays the status 'Elapsed 00:00:01' and a 'Stdout' dropdown menu. A search bar and an 'Unfollow' button are also present. In the center of the output window, there is a small icon of three cubes and the text 'Waiting for job output...'.

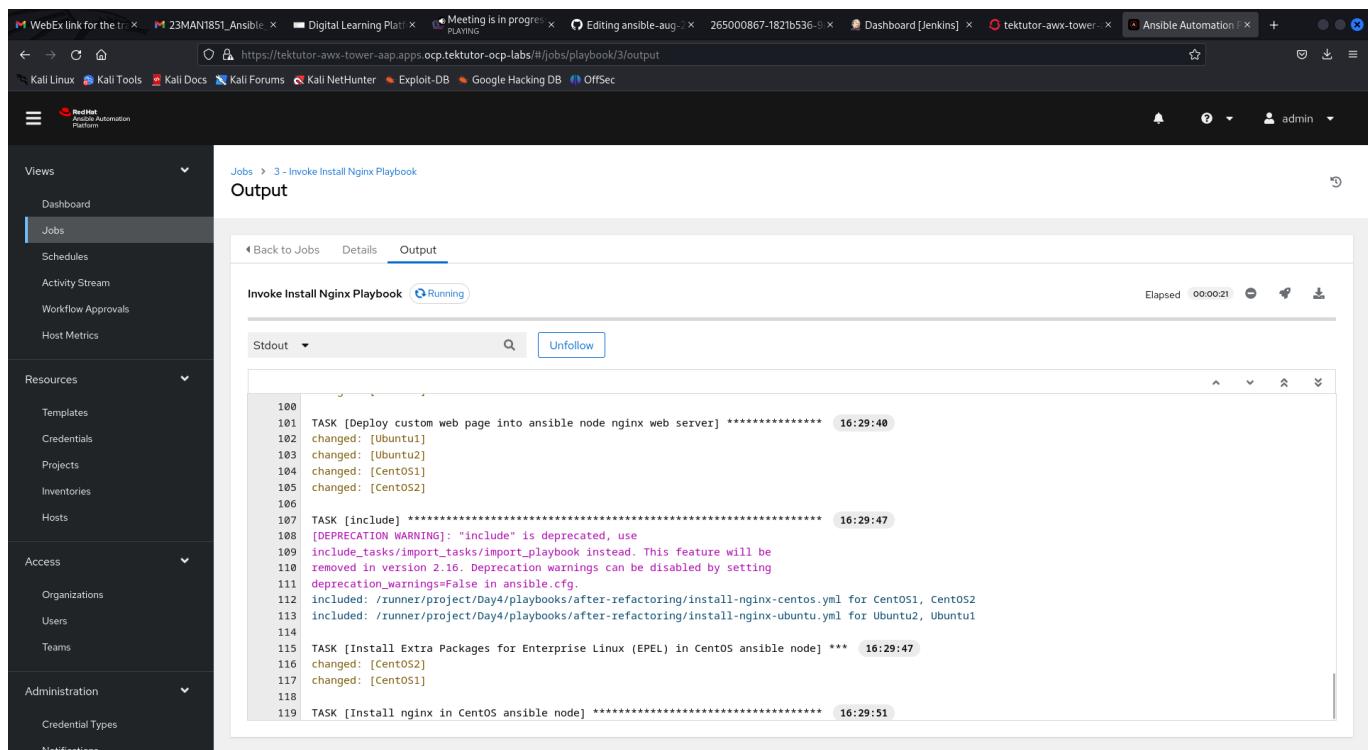


Jobs > 3 - Invoke Install Nginx Playbook

Output

Stdout ▾ Follow

```
0 Identity added: /runner/artifacts/3/ssh_key_data (jegan@tekutor)
1 [DEPRECATION WARNING]: "include" is deprecated, use include_tasks/import_tasks
2 instead. See https://docs.ansible.com/ansible-
3 core/2.15/user_guide/playbooks_reuseIncludes.html for details. This feature
4 will be removed in version 2.16. Deprecation warnings can be disabled by
5 setting depreciation_warnings=False in ansible.cfg.
6
7 PLAY [This playbook will install nginx, configures the nginx to pick html page from custom directory and will deploy custom web page] ***
8
9 TASK [Gathering Facts] *****
10 ok: [Ubuntu1]
11 ok: [Ubuntu2]
12 ok: [CentOS1]
13 ok: [CentOS2]
14
15 TASK [Retrieve IP address of the ansible node] *****
16 changed: [Ubuntu1]
17 changed: [Ubuntu2]
18 changed: [CentOS1]
19 changed: [CentOS2]
```



Jobs > 3 - Invoke Install Nginx Playbook

Output

Stdout ▾ Unfollow

```
100
101 TASK [Deploy custom web page into ansible node nginx web server] *****
102 changed: [Ubuntu1]
103 changed: [Ubuntu2]
104 changed: [CentOS1]
105 changed: [CentOS2]
106
107 TASK [include] *****
108 [DEPRECATION WARNING]: "include" is deprecated, use
109 include_tasks/import_tasks/import_playbook instead. This feature will be
110 removed in version 2.16. Deprecation warnings can be disabled by setting
111 depreciation_warnings=False in ansible.cfg.
112 included: /runner/project/Day4/playbooks/after-refactoring/install-nginx-centos.yml for CentOS1, CentOS2
113 included: /runner/project/Day4/playbooks/after-refactoring/install-nginx-ubuntu.yml for Ubuntu2, Ubuntu1
114
115 TASK [Install Extra Packages for Enterprise Linux (EPEL) in CentOS ansible node] ***
116 changed: [CentOS2]
117 changed: [CentOS1]
118
119 TASK [Install nginx in CentOS ansible node] *****
```

```

240 changed: [Ubuntu1]
241 changed: [Ubuntu2]
242
243 TASK [Check if the nginx web server is already running in CentOS] *****
244 changed: [CentOS1]
245 changed: [CentOS2]
246
247 TASK [Stop nginx web server in CentOS ansible node] *****
248 changed: [CentOS2]
249 changed: [CentOS1]
250
251 TASK [Restart nginx web server in CentOS ansible node] *****
252 changed: [CentOS1]
253 changed: [CentOS2]
254
255 PLAY RECAP *****
256 Centos1 : ok=19 changed=11 unreachable=0 failed=0 skipped=0 rescued=0 ignored=1
257 Centos2 : ok=19 changed=11 unreachable=0 failed=0 skipped=0 rescued=0 ignored=1
258 Ubuntu1 : ok=13 changed=7 unreachable=0 failed=0 skipped=0 rescued=0 ignored=0
259 Ubuntu2 : ok=13 changed=7 unreachable=0 failed=0 skipped=0 rescued=0 ignored=0

```

Jobs						
		Name	Status	Type	Start Time	Finish Time
>	□	3 - Invoke Install Nginx Playbook	Successful	Playbook Run	9/1/2023, 4:29:31 PM	9/1/2023, 4:32:46 PM
>	□	2 -- TekTutor Training Repo	Successful	Source Control Update	9/1/2023, 4:05:41 PM	9/1/2023, 4:05:47 PM

Post Test Url

<https://app.mymapit.in/code4/tiny/ZMIZNR>

Feedback link

<https://tcheck.co/HgKc9b>