Complete Ansible Automation Training

Ansible Automation with Simple Playbooks

YAML File Syntax

- ✓ All tasks are executed in sequential order

- ✓ Each task is processed one at a time

- ✓ Indentation is extremely important

- ✓ No <tabs> in yaml file

- ✓ Only use spaces

- ✓ Empty lines have no value

- ✓ File extension is usually .yml or .yaml

By: Imran Afzal
www.utclisolutions.com

YAML File Syntax

✓ No difference in double quotes or NO quotes for a task **name:**

✓ YAML Playbook files can be placed anywhere on the filesystem as long as they are being executed with absolute path

✓ When a flat file is written in YAML format to execute tasks/plays then it is called playbook

✓ There is NO need to modify the file permission
rwx--x--x

YAML File Syntax Example

```
---
  - name: sampleplaybook
    hosts: all or localhost
    become: yes
    become_user: root


  tasks:
  - name: Install Apache httpd
    yum:
    name: httpd
    state: present


- name: 2nd task
  service:
  name: httpd
  state: started
```

Name of the playbook

Where to run?

Run as a different user?

Define the name of the task

Run task module **yum**

Name of the package

What to do? -- Install

Declare task

- Ansible modules and options
https://docs.ansible.com/ansible/2.5/modules/

By: Imran Afzal
www.utclisolutions.com

Creating First Playbook

- There are online yaml tools you can use to create Playbooks
  - https://onlineyamltools.com/edit-yaml
  - https://codebeautify.org/yaml-editor-online

- Tools to download
  - Notepad++ Windows

- Take a snapshot after installing Ansible software
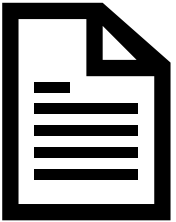
```
# su - root
# mkdir /etc/ansible/playbooks
# cd /etc/ansible/playbooks
# vim first.yml


---
- name: "My first playbook"
  hosts: localhost

  tasks:
  - name: "test connectivity"
    ping:
```

- Check syntax of playbook
```
# anisble-playbook --syntax-check first.yml
```
Or to do a dry run
```
# anisble-playbook --check first.yml
```

- Run the playbook
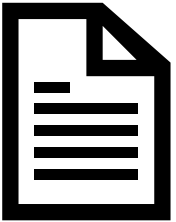```
anisble-playbook /root/ansible/first.yml
```

By: Imran Afzal
www.utclisolutions.com

# Creating First Playbook

**Please note:**

- Running ansible without a playbook
**# ansible**

- Running ansible with a playbook
**# ansible-playbook**

# Output Playbook

This playbook will print "Hello World" on localhost

```
# cd /etc/ansible/playbook
# vim helloworld.yml


---
- name: My Second playbook          ──────→  Name of the play or playbook
  hosts: localhost                  ──────→  Run on localhost

    tasks:                          ──────→  Run the following task
    - name: Print Hello World       ──────→  Name of the task
      debug: msg="Hello World"      ──────→  Run debug module which prints statements during execution
```

```
Run the playbook
# anisble-playbook helloworld.yml
```

Multiple Tasks Playbook

The playbook will ping localhost and print "Hello World"

```
# vim mtask.yml


---
- name: Running 2 tasks
  hosts: localhost

  tasks:
  - name: Test connectivity
    ping:

  - name: Print Hello World
    debug: msg="Hello World"
```

Name of the play
Run it on local host

Run the following task
Name of the task
Run the **ping** module

Name of the 2nd task
Run the **debug** module

```
Run the playbook
# anisble-playbook mtask.yml
```

By: Imran Afzal
www.utclisolutions.com

Installing and Starting a Package

```
# vim packinstall.yml

---
- name: Installing and Running apache
  hosts: localhost

  tasks:
  - name: Install apache
    yum:
      name: httpd
      state: present

  - name: start httpd
    service:
      name: httpd
      state: started
```

Run the playbook
```
# anisble-playbook packinstall.yml
```

By: Imran Afzal
www.utclisolutions.com