

## ansible-navigator nə üçündür?

ansible-playbook command`ası playbookları run etmək üçün istifadə olunur. Bundan əlavə olaraq ansible-inventory command`ası var. Bu cür command çoxluğunu ləğv etmək üçün ansible-navigator command`ası istifadə olunur. ansible-navigator execution environmentdir. Bu mühit də bir imagedir. Image run olması üçün bizə container lazımdır. Container üçün də bizə container runtime lazımdır. RedHat`ın isə default container runtime`ı Podmandır. ansible-navigator`dan istifadə edə bilmək üçün local`da Podman install olunmalıdır. Ancaq imtahanda ansible-navigator və ansible-playbook istifadə etməyin heç bir fərqi yoxdur.

## Install ansible-navigator

In exam just type `yum install ansible; yum install ansible-navigator`

`yum install python3-pip`

`python3 -m pip install ansible-navigator --user`

`echo 'export PATH=$HOME/.local/bin:$PATH' >> ~/.profile`

`source ~/.profile`

ansible-navigator (image pull edir)

```
[root@master ansible]# ansible-navigator
-----
Execution environment image and pull policy overview
-----
Execution environment image name:      ghcr.io/ansible/creator-ee:v0.22.0
Execution environment image tag:       v0.22.0
Execution environment pull arguments:  None
Execution environment pull policy:     tag
Execution environment pull needed:     True
-----
Updating the execution environment
-----
Running the command: podman pull ghcr.io/ansible/creator-ee:v0.22.0
Trying to pull ghcr.io/ansible/creator-ee:v0.22.0...
Getting image source signatures
Copying blob ca6ff2c3ecc4 [=====>-----] 25.8MiB / 37.2MiB | 275.3 KiB/s
Copying blob 2941e6f1d2bc [=====] 30.4MiB / 248.1MiB | 447.4 KiB/s
Copying blob 32db66e6bbce done
Copying blob 92e1f4a92098 done
Copying blob 600b306c9749 done
Copying blob 2764fac24a7d done
Copying blob d419ad167630 done
Copying blob 7b03b9e3c798 done
Copying blob 05a232cb5cea done
Copying blob be915b595e0a done
Copying blob 25380a2f785a done
Copying blob 1a57afb20498 done
Copying blob 09f2372dbd92 done
```

## Config ansible-navigator

ansible-navigator

```
0 Welcome
1
2
3 Some things you can try from here:
4 - :collections           Explore available collections
5 - :config                Explore the current ansible configuration
6 - :doc <plugin>          Review documentation for a module or plugin
7 - :help                  Show the main help page
8 - :images                Explore execution environment images
9 - :inventory -i <inventory> Explore an inventory
10 - :log                   Review the application log
11 - :lint <file or directory> Lint Ansible/YAML files (experimental)
12 - :open                  Open current page in the editor
13 - :replay                Explore a previous run using a playbook artifact
14 - :run <playbook> -i <inventory> Run a playbook in interactive mode
15 - :settings              Review the current ansible-navigator settings
16 - :quit                  Quit the application
17
18 happy automating,
19
20 -Winston
```

ansible-navigator --help

```
Subcommands:
{subcommand} --help
builder           Build [execution environment](https://ansible.readthedocs.io/en/latest/getting_started_ee/index.html) (container image)
collections       Explore available collections
config            Explore the current ansible configuration
doc               Review documentation for a module or plugin
exec              Run a command within an execution environment
images            Explore execution environment images
inventory         Explore an inventory
```

podman images

vim ansible-navigator.yml

```
---
ansible-navigator:
  execution-environment:
    image: ghcr.io/ansible/creator-ee:v0.22.0
  pull:
    policy: missing
  playbook-artifact:
    enable: false
```

ansible-navigator run -m stdout 1.yml

## ansible-playbook

- 1) write a playbook that installs the httpd and firewalld package on prod
- 2) ensure that is service started and that the firewall is opened to allowed access to it
- 3) also create file /var/www/html/index.html with some engineer text
- 4) lastly, write playbook that undo all modifications

vim 1.yml

```
---
- name: 1st task
  hosts: prod
  tasks:
    - name: paketleri install et
      yum:
        name:
          - httpd
          - firewalld
        state: latest

    - name: servis status
      service:
        name: httpd
        state: started
        enabled: yes

    - name: firewalla elave etmek
      firewallld:
        service: http
        permanent: true
        state: enabled
        immediate: true

    - name: index html elave et
      copy:
        content: "Engineer8"
        dest: /var/www/html/index.html
```

vim undo.yml

```
---
- name: undo play
  hosts: proxy
  gather_facts: no
  tasks:
    - name: paket sil
      yum:
        name: httpd
        state: absent
    - name: file sil
      file:
        path: /var/www/html/index.html
        state: absent
```

ansible-navigator run -m stdout 1.yml

- 1) create folder /tmp/ingress, permission 775, owner user ansible
- 2) create file /tmp/engineer, mode 644
- 3) set multi-user.target for default.target to all
- 4) change /etc/issue file in all nodes and write "Test issue"

vim 2.yml

```
---
- name: play2
  hosts: proxy
  gather_facts: no
  tasks:
    - ansible.builtin.file:
      path: /tmp/ingress2
      state: directory
      mode: '0775'
      owner: ansible
    - ansible.builtin.file:
      path: /tmp/ingress3
      state: touch
      mode: '644'
    - ansible.builtin.file:
      src: /usr/lib/systemd/system/multi-user.target
      dest: /etc/systemd/system/default.target
      state: link
    - copy:
      content: "Welcome"
      dest: /etc/issue
```

ansible-navigator run -m stdout 2.yml

```
[root@master ansible]# ansible-navigator run -m stdout 2.yml

PLAY [play2] *****

TASK [ansible.builtin.file] *****
changed: [192.168.149.129]

TASK [ansible.builtin.file] *****
changed: [192.168.149.129]

TASK [ansible.builtin.file] *****
ok: [192.168.149.129]

TASK [copy] *****
changed: [192.168.149.129]

PLAY RECAP *****
192.168.149.129 : ok=4  changed=3  unreachable=0  failed=0  skipped=0  rescued=0  ignored=0
```

vim 3.yml

```
---
- name: play3
  hosts: proxy
  gather_facts: no
  tasks:
    - name: Ensure SSH is set to enforcing mode
      ansible.builtin.lineinfile:
        path: /etc/ssh/sshd_config
        regexp: '^Port 22'
        line: Port 4455
```

proxy qrupunda lineinfile modulundan istifadə edərək "Port 22" ilə başlayan line`ı "Port 4455" `ə dəyiş.