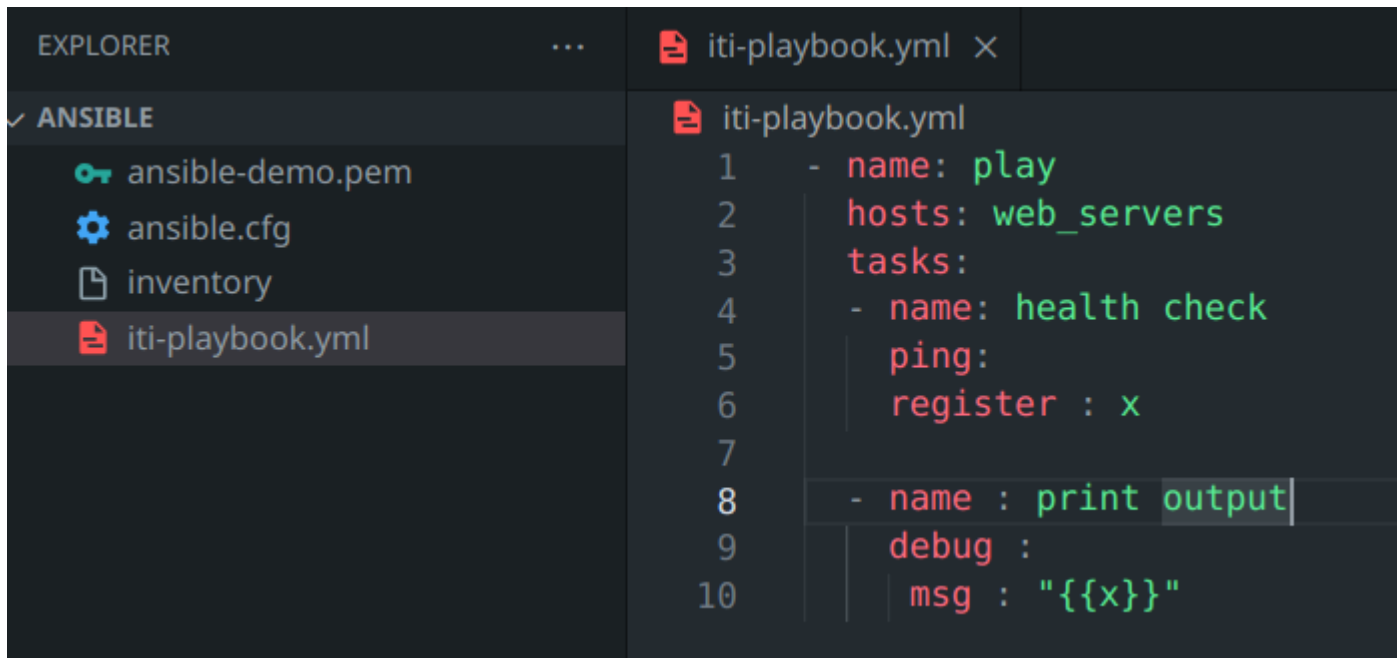
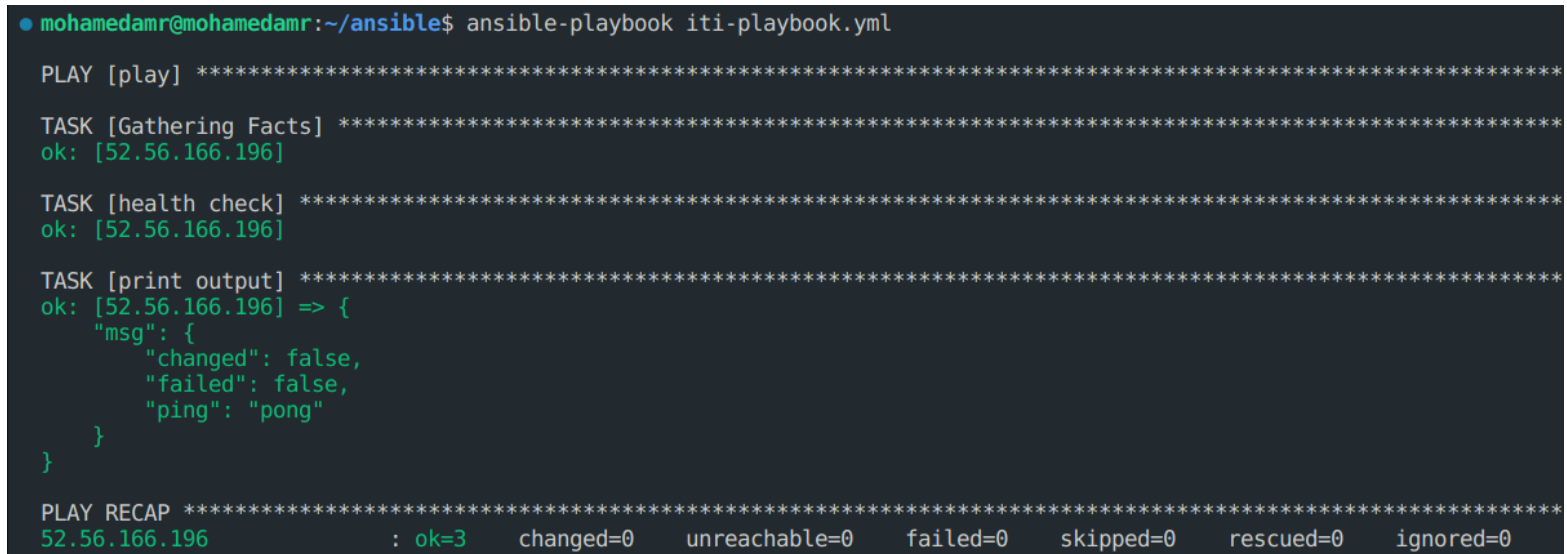


Write your first playbook file



The screenshot shows the VS Code interface. On the left, the Explorer sidebar is open, showing a file tree under 'ANSIBLE' with files: 'ansible-demo.pem', 'ansible.cfg', 'inventory', and 'iti-playbook.yml'. The 'iti-playbook.yml' file is selected. On the right, the Editor shows the content of 'iti-playbook.yml' with line numbers 1 through 10. The content is a YAML playbook with two tasks: a 'play' task with 'hosts: web_servers' and a 'health check' task with 'ping: register: x'. The 'print output' task is partially visible at the bottom.

```
1 - name: play
2   hosts: web_servers
3   tasks:
4     - name: health check
5       ping:
6         register: x
7
8     - name: print output
9       debug:
10        msg: "{{x}}"
```



The screenshot shows a terminal window with the command 'ansible-playbook iti-playbook.yml' executed. The output shows the playbook running on host 52.56.166.196. It includes a 'Gathering Facts' task, a 'health check' task, and a 'print output' task. The 'print output' task shows the output of the 'ping' task, which is 'pong'. The final 'PLAY RECAP' shows that the playbook was successful on 52.56.166.196 with 3 OK, 0 changed, 0 unreachable, 0 failed, 0 skipped, 0 rescued, and 0 ignored.

```
● mohamedamr@mohamedamr:~/ansible$ ansible-playbook iti-playbook.yml

PLAY [play] *****

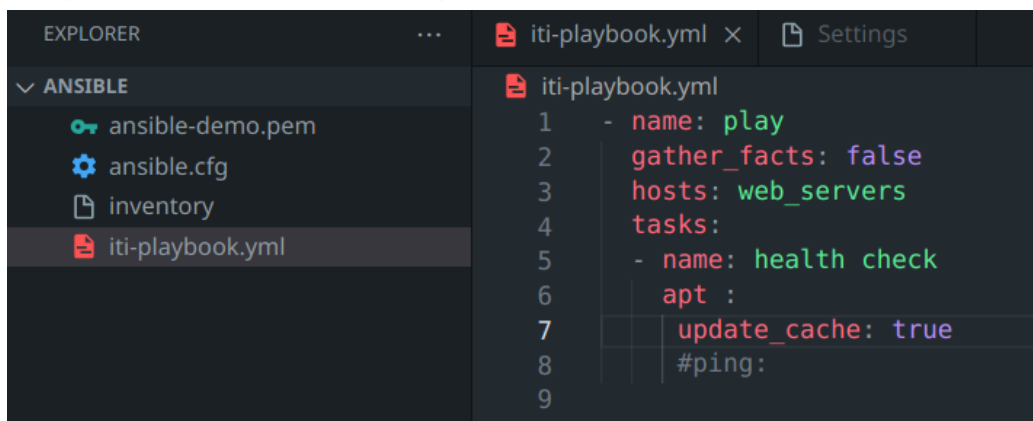
TASK [Gathering Facts] *****
ok: [52.56.166.196]

TASK [health check] *****
ok: [52.56.166.196]

TASK [print output] *****
ok: [52.56.166.196] => {
  "msg": {
    "changed": false,
    "failed": false,
    "ping": "pong"
  }
}

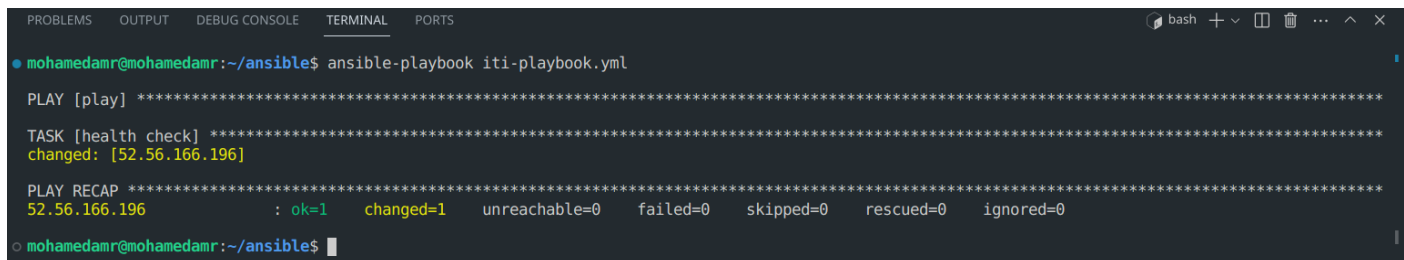
PLAY RECAP *****
52.56.166.196 : ok=3  changed=0  unreachable=0  failed=0  skipped=0  rescued=0  ignored=0
```

Stop gather_facts and update cache



The screenshot shows the VS Code Editor with the 'iti-playbook.yml' file open. The content is a YAML playbook with two tasks: a 'play' task with 'gather_facts: false' and 'hosts: web_servers', and a 'health check' task with 'apt: update_cache: true'. The 'ping' task is commented out with '#ping:'.

```
1 - name: play
2   gather_facts: false
3   hosts: web_servers
4   tasks:
5     - name: health check
6       apt:
7         update_cache: true
8       #ping:
9
```



The screenshot shows a terminal window with the command 'ansible-playbook iti-playbook.yml' executed. The output shows the playbook running on host 52.56.166.196. It includes a 'health check' task. The final 'PLAY RECAP' shows that the playbook was successful on 52.56.166.196 with 1 OK, 1 changed, 0 unreachable, 0 failed, 0 skipped, 0 rescued, and 0 ignored.

```
● mohamedamr@mohamedamr:~/ansible$ ansible-playbook iti-playbook.yml

PLAY [play] *****

TASK [health check] *****
changed: [52.56.166.196]

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

● mohamedamr@mohamedamr:~/ansible$
```

- Update cache
- Install latest nginx
- Copy index.html from controller to host 1
- Restart nginx service

```

iti-playbook.yml
1  - name: play
2    gather_facts: false
3    hosts: web_servers
4    tasks:
5
6      - name: updating pkm
7        apt:
8          update_cache: yes
9          name: nginx
10         state: latest
11
12     - name: copying index file
13       copy:
14         src: ./index.html
15         dest: /var/www/html/index.html
16
17     - name: restarting nginx
18       service:
19         name: nginx
20         state: restarted
21

```

```

mohamedamr@mohamedamr:~/ansible$ ansible-playbook iti-playbook.yml

PLAY [play] *****

TASK [updating pkm] *****
changed: [52.56.166.196]

TASK [copying index file] *****
changed: [52.56.166.196]

TASK [restarting nginx] *****
changed: [52.56.166.196]

PLAY RECAP *****
52.56.166.196 : ok=3    changed=3    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0

mohamedamr@mohamedamr:~/ansible$

```

- Can you see your index.html file when you hit host 1 on port 80 ?

```

mohamedamr@mohamedamr:~/ansible$ curl 52.56.166.196
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>HELLO FROM EC2 -ANSIBLE LAB 2</title>
</head>
<body>

</body>
</html>mohamedamr@mohamedamr:~/ansible$

```

- Write simple playbook file
- Add two tasks (apt update – apt install nginx)
- Add tags to first task: update
- Add tags to second task: install

```
- name: play
  gather_facts: false
  hosts: web_servers
  tasks:

    - name: updating pkm
      apt:
        update_cache: yes
      tags:
        - update

    - name: installing nginx
      apt:
        name: nginx
        state: latest
      tags:
        - install

    - name: restarting nginx
      service:
        name: nginx
        state: restarted
```

- Run only the (apt update) task

```

● mohamedamr@mohamedamr:~/ansible$ ansible-playbook iti-playbook.yml --tags update

PLAY [play] *****

TASK [updating pkm] *****
changed: [52.56.166.196]

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

○ mohamedamr@mohamedamr:~/ansible$

```

Add one task with “tags: always” and run the previous command again

```
- name: restarting nginx
  service:
    name: nginx
    state: restarted
  tags:
    - always
```

```
● mohamedamr@mohamedamr:~/ansible$ ansible-playbook iti-playbook.yml --tags update
```

```
PLAY [play] *****
```

```
TASK [updating pkm] *****
changed: [52.56.166.196]
```

```
TASK [restarting nginx] *****
changed: [52.56.166.196]
```

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

```
○ mohamedamr@mohamedamr:~/ansible$
```

Define these variables (package_name, package_version)
on playbook level

```
- name: play
gather_facts: false
hosts: web_servers
vars:
  package_name: "nginx"
  package_version: "Latest version"
tasks:
  - name: updating pkm
    apt:
      update_cache: yes

  - name: installing nginx message
    debug:
      msg: "{{ package_name }}"

  - name: package_version
    debug:
      msg: "{{ package_version }}"

  - name: installing nginx
    apt:
      name: "{{ package_name }}"
      state: latest

  - name: restarting nginx
    service:
      name: nginx
      state: restarted
```

```

● mohamedamr@mohamedamr:~/ansible$ ansible-playbook iti-playbook.yml

PLAY [play] *****

TASK [updating pkm] *****
changed: [52.56.166.196]

TASK [installing nginx message] *****
ok: [52.56.166.196] => {
  "msg": "nginx"
}

TASK [package_version] *****
ok: [52.56.166.196] => {
  "msg": "LatestVersion"
}

TASK [installing nginx] *****
ok: [52.56.166.196]

TASK [restarting nginx] *****
changed: [52.56.166.196]

PLAY RECAP *****
52.56.166.196      : ok=5    changed=2    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0

```

on inventory level

```

inventory
1  package_name =apt
2  package_version=latest
3  [web_servers]
4  52.56.166.196
5  [database_servers]
6  3.87.24.252
7  3.87.24.253
8  [fullstack:children]
9  web_servers
10 database_servers
11

```

on command line level

```

❗ mohamedamr@mohamedamr:~/ansible$ ansible-playbook iti-playbook.yml -e "package_name=apache"

PLAY [play] *****

TASK [updating pkm] *****
changed: [52.56.166.196]

TASK [installing nginx message] *****
ok: [52.56.166.196] => {
  "msg": "apache"
}

```