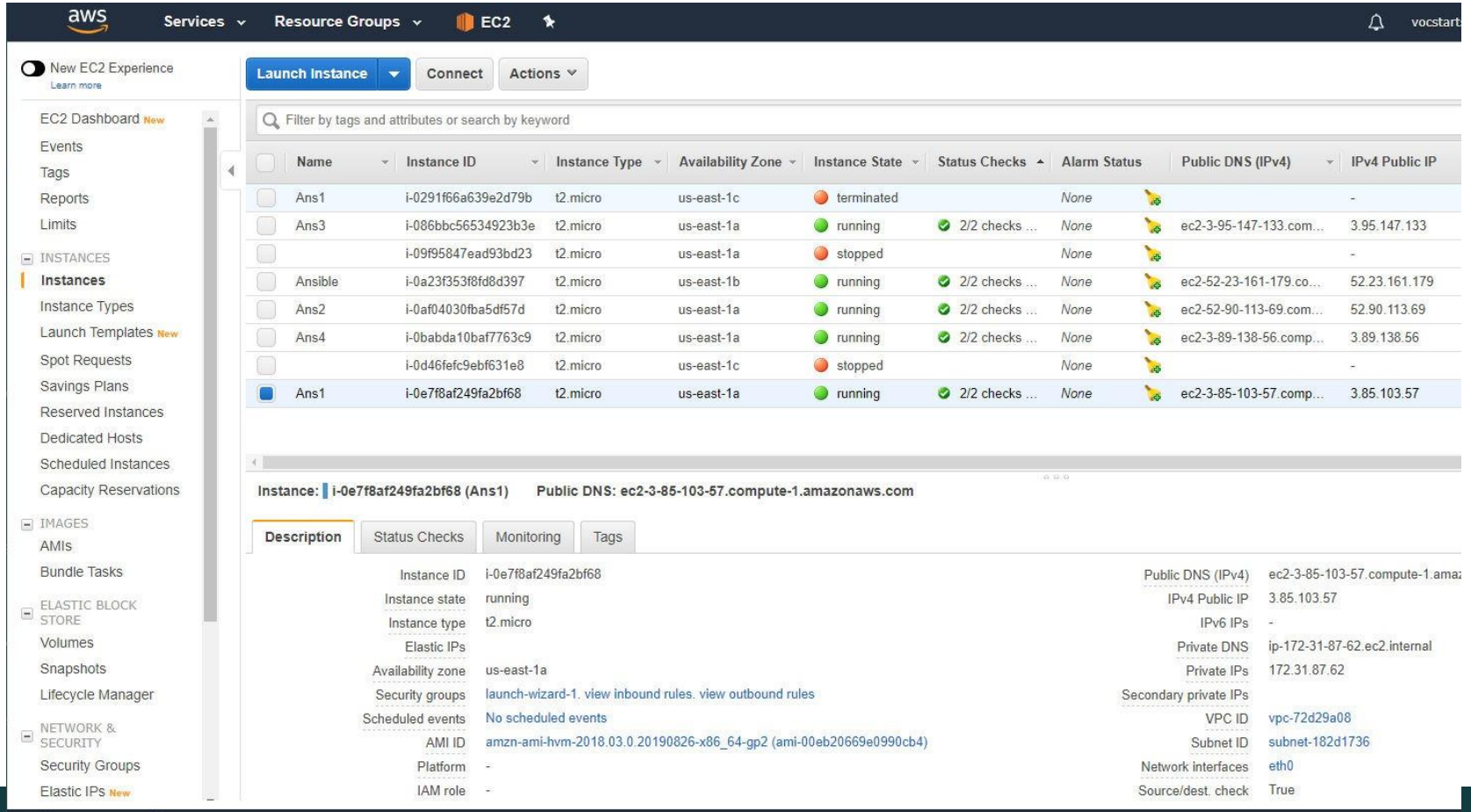
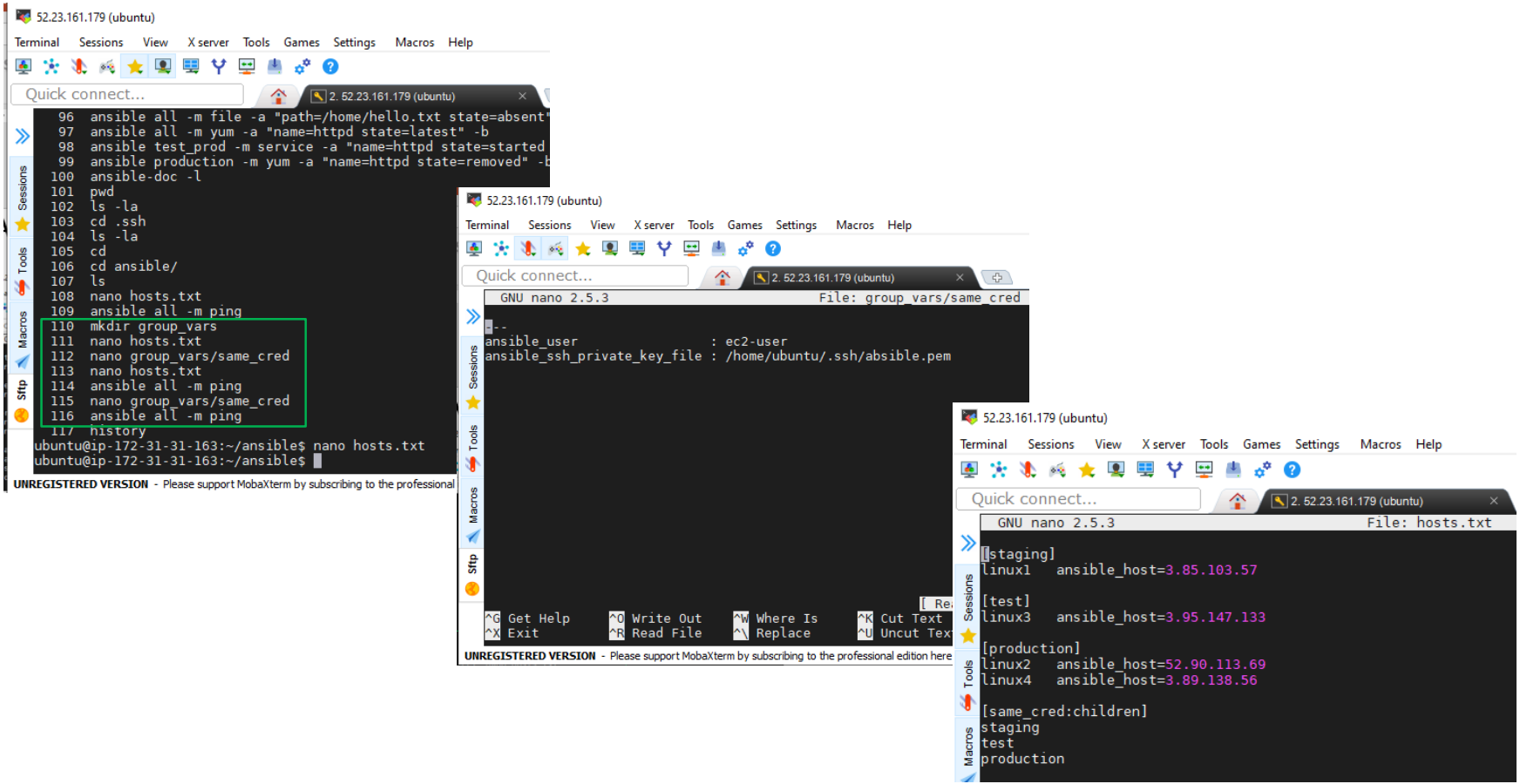
Configuration Management. Lection 2.

ANSIBLE (prepare EC2 instances for using with Ansible)

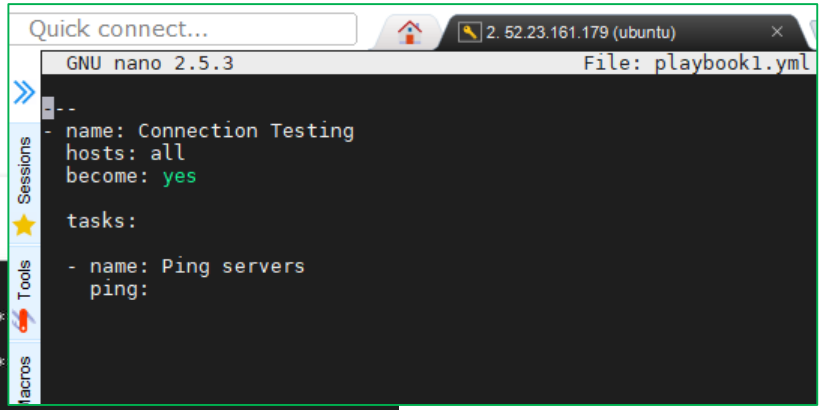


ANSIBLE (make info more structured using **host_var/groups_var**)



ANSIBLE : first playbooks

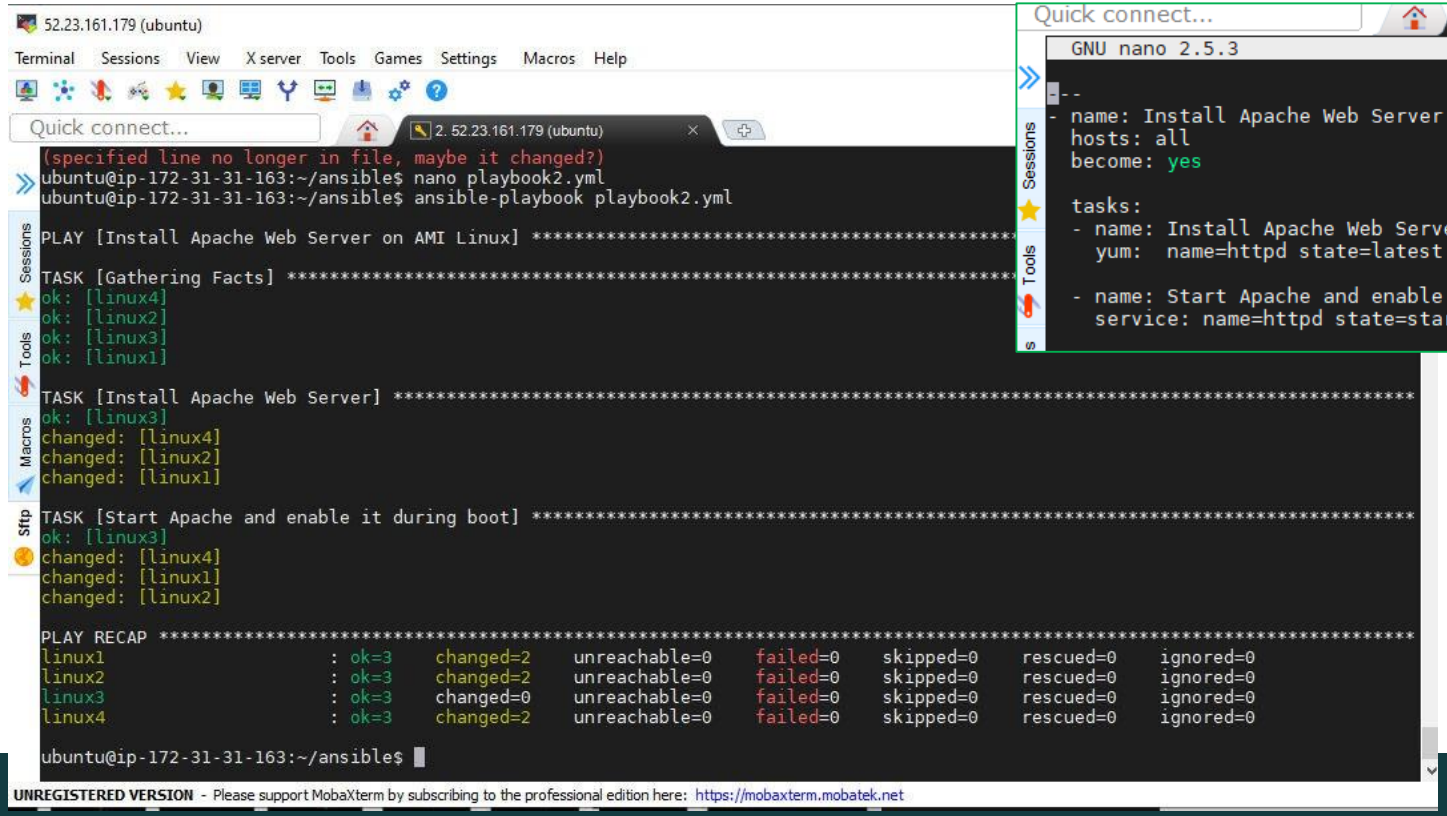
Task: Test connection to all servers, owned by your organization.
Assumed, that you have credentials to do this action

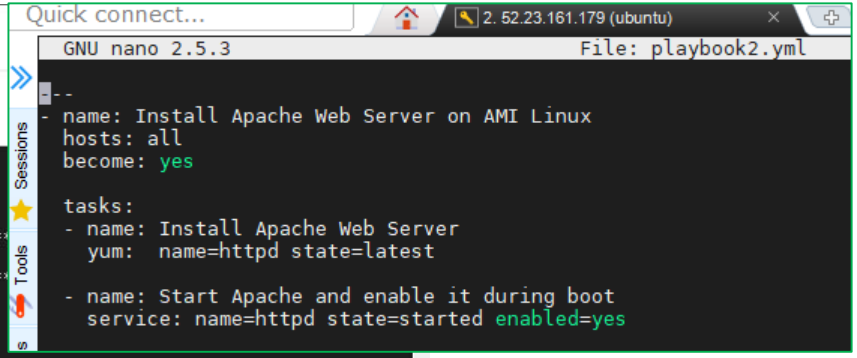



```
52.23.161.179 (ubuntu)
Terminal  Sessions  View  X server  Tools  Games  Settings  Macros  Help
Quick connect...   2. 52.23.161.179 (ubuntu)
ubuntu@ip-172-31-31-163:~/ansible$ ansible-playbook playbook1.yml

PLAY [Connection Testing] ***********************************************

TASK [Gathering Facts] **************************************************
ok: [linux4]
ok: [linux1]
ok: [linux2]
ok: [linux3]

TASK [Ping servers] *****************************************************
ok: [linux4]
ok: [linux1]
ok: [linux3]
ok: [linux2]

PLAY RECAP **************************************************************
linux1                     : ok=2    changed=0    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0
linux2                     : ok=2    changed=0    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0
linux3                     : ok=2    changed=0    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0
linux4                     : ok=2    changed=0    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0

ubuntu@ip-172-31-31-163:~/ansible$
ubuntu@ip-172-31-31-163:~/ansible$
Sessions  Tools  Macros  Sftp
UNREGISTERED VERSION - Please support MobaXterm by subscribing to the professional edition here: https://mobaxterm.mobatek.net
```

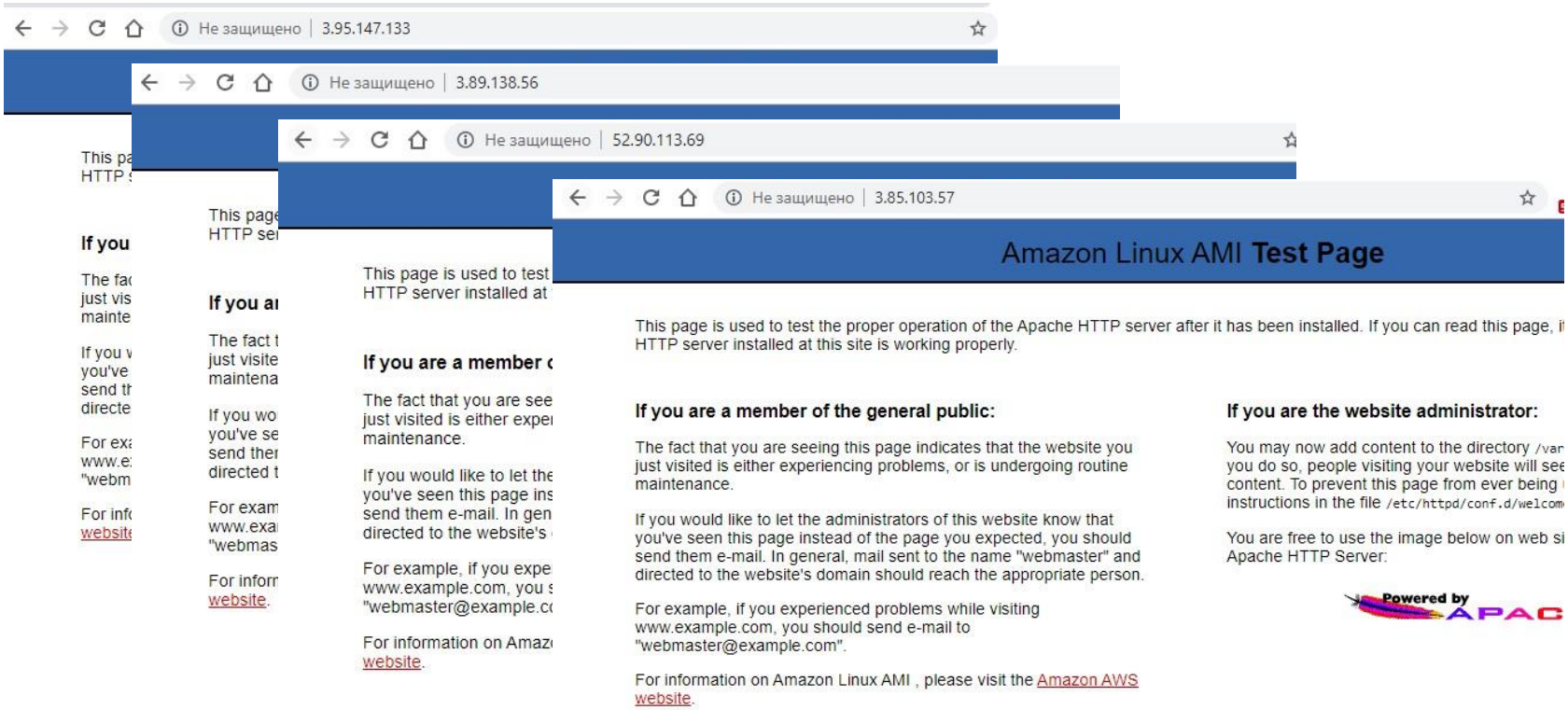
ANSIBLE : first playbooks

Task: Install Apache Web Server on all servers, owned by your organization.
Also needed to start Apache Web Server and enable it during boot





ANSIBLE : first playbooks



ANSIBLE : first playbooks

Task: Install Apache Web Server on all servers, owned by your organization.
Also needed to start Apache Web Server and enable it during boot.
Also needed to change default index.html

52.23.161.179 (ubuntu)

Terminal Sessions View X server Tools Games Settings Macros Help

Quick connect...

2. 52.23.161.179 (ubuntu)

```
ubuntu@ip-172-31-31-163:~/ansible$ ansible-playbook playbook3a.yml

PLAY [Install Apache Web Server on AMI Linux. Upload web page example] *********

TASK [Gathering Facts] *********************************************************
ok: [linux2]
ok: [linux4]
ok: [linux3]
ok: [linux1]

TASK [Install Apache Web Server] ***********************************************
ok: [linux2]
ok: [linux3]
ok: [linux1]
ok: [linux4]

TASK [Copy index.html to target server] ****************************************
changed: [linux2]
changed: [linux1]
changed: [linux4]
changed: [linux3]

TASK [Start Apache and enable it during boot] **********************************
ok: [linux4]
ok: [linux3]
ok: [linux1]
ok: [linux2]

PLAY RECAP *********************************************************************
linux1                     : ok=4    changed=1    unreachable=0    failed=0    skipped=
linux2                     : ok=4    changed=1    unreachable=0    failed=0    skipped=
linux3                     : ok=4    changed=1    unreachable=0    failed=0    skipped=
linux4                     : ok=4    changed=1    unreachable=0    failed=0    skipped=

ubuntu@ip-172-31-31-163:~/ansible$
```

Sessions Tools Macros Sftp

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Quick connect...

2. 52.23.161.179 (ubuntu)

GNU nano 2.5.3 File: playbook3a.yml

```
---
- name: Install Apache Web Server on AMI Linux. Upload web page example
  hosts: all
  become: yes


  vars:
    source_file: index.html
    destin_file: /var/www/html


  tasks:
  - name: Install Apache Web Server
    yum:  name=httpd state=latest

  - name: Copy index.html to target server
    copy: src={{ source_file }} dest={{ destin_file }} mode=0555

  - name: Start Apache and enable it during boot
    service: name=httpd state=started enabled=yes
```

Sessions Tools Macros Sftp

Quick connect...

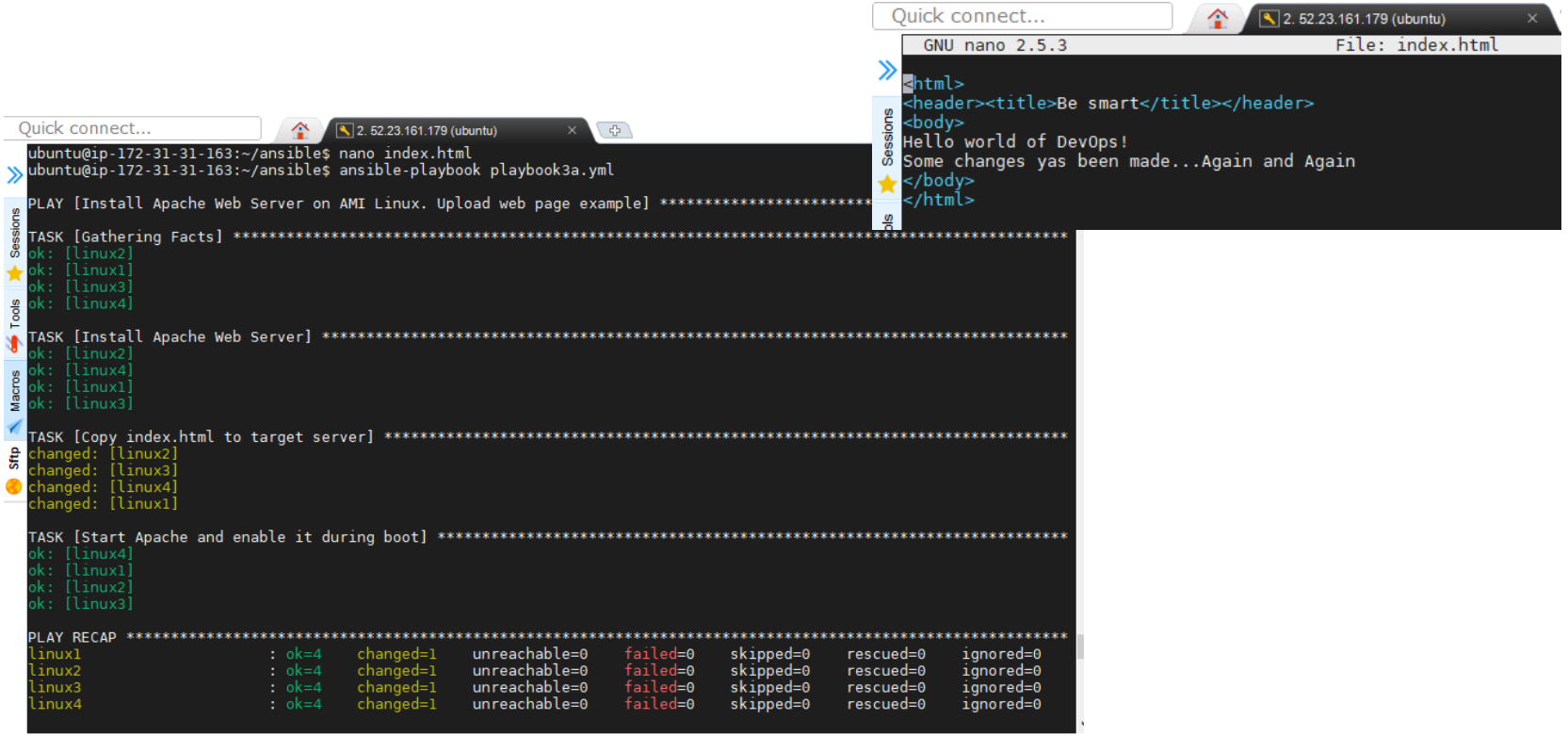
2. 52.23.161.179 (ubuntu)

GNU nano 2.5.3 File: index.html

```
<html>
<header><title>Be smart</title></header>
<body>
Hello world of DevOps!
</body>
</html>
```

Sessions

ANSIBLE : first playbooks



ANSIBLE : first playbooks

Quick connect...

2. 52.23.161.179 (ubuntu)

```
 GNU nano 2.5.3                                File: index.html

<html>
<header><title>Be smart</title></header>
<body>
Hello world of DevOps!
Some changes yas been made...Again and Again
</body>
</html>
```

Quick connect...

2. 52.23.161.179 (ubuntu)

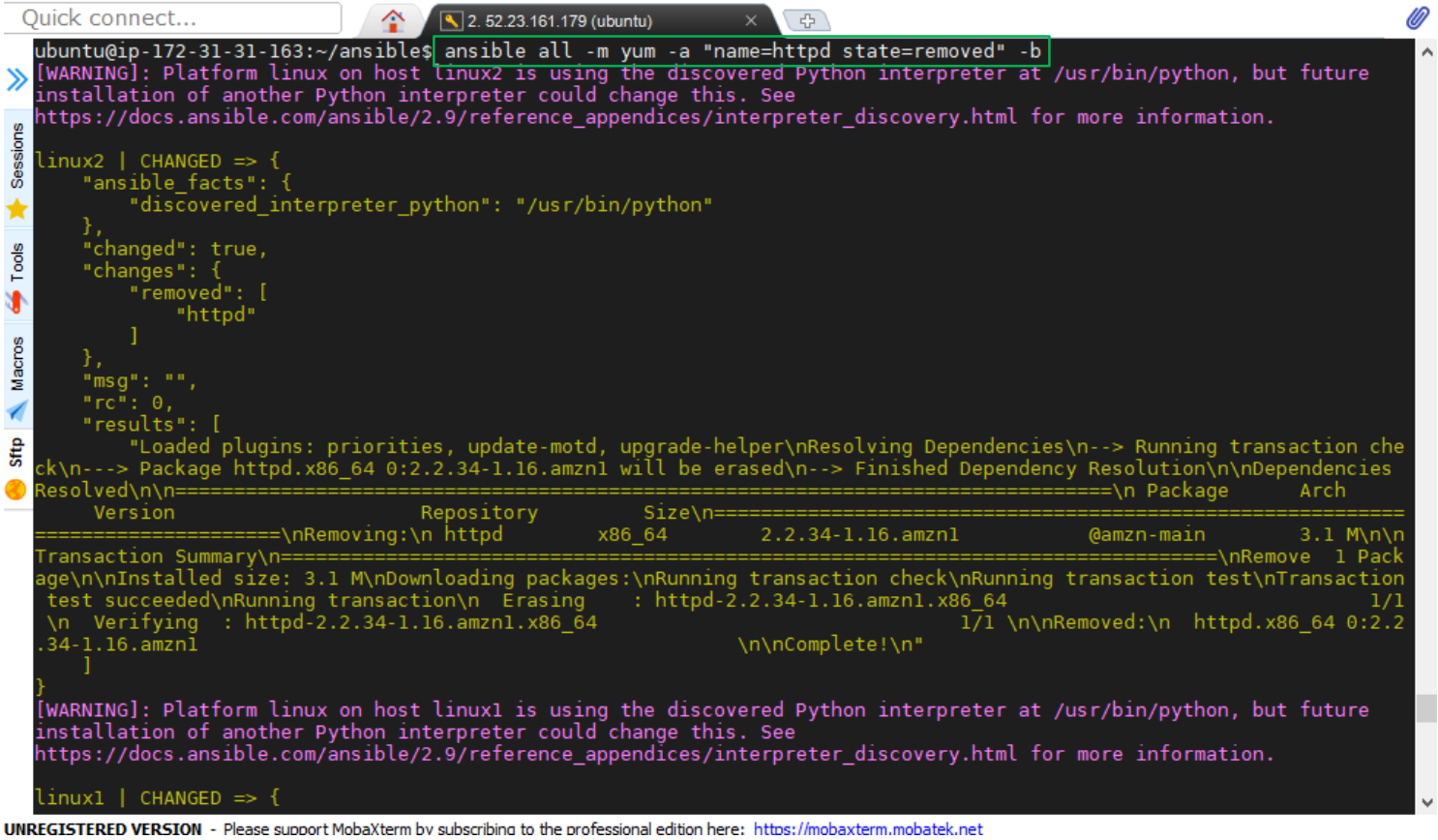
```
ok: [linux4]
ok: [linux2]
ok: [linux1]

TASK [Install Apache Web Server] ***********************************************
ok: [linux1]
ok: [linux2]
ok: [linux4]
ok: [linux3]

TASK [Copy index.html to target server] ****************************************
changed: [linux2]
changed: [linux4]
changed: [linux3]
changed: [linux1]

TASK [Start Apache and enable it during boot] **********************************
ok: [linux3]
ok: [linux1]
ok: [linux4]
ok: [linux2]

RUNNING HANDLER [Restart Apache] ***********************************************
changed: [linux2]
changed: [linux4]
changed: [linux1]
changed: [linux3]

PLAY RECAP *********************************************************************
linux1                     : ok=5    changed=2    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0
linux2                     : ok=5    changed=2    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0
linux3                     : ok=5    changed=2    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0
linux4                     : ok=5    changed=2    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0

ubuntu@ip-172-31-31-163:~/ansible$
```

Quick connect...

2. 52.23.161.179 (ubuntu)

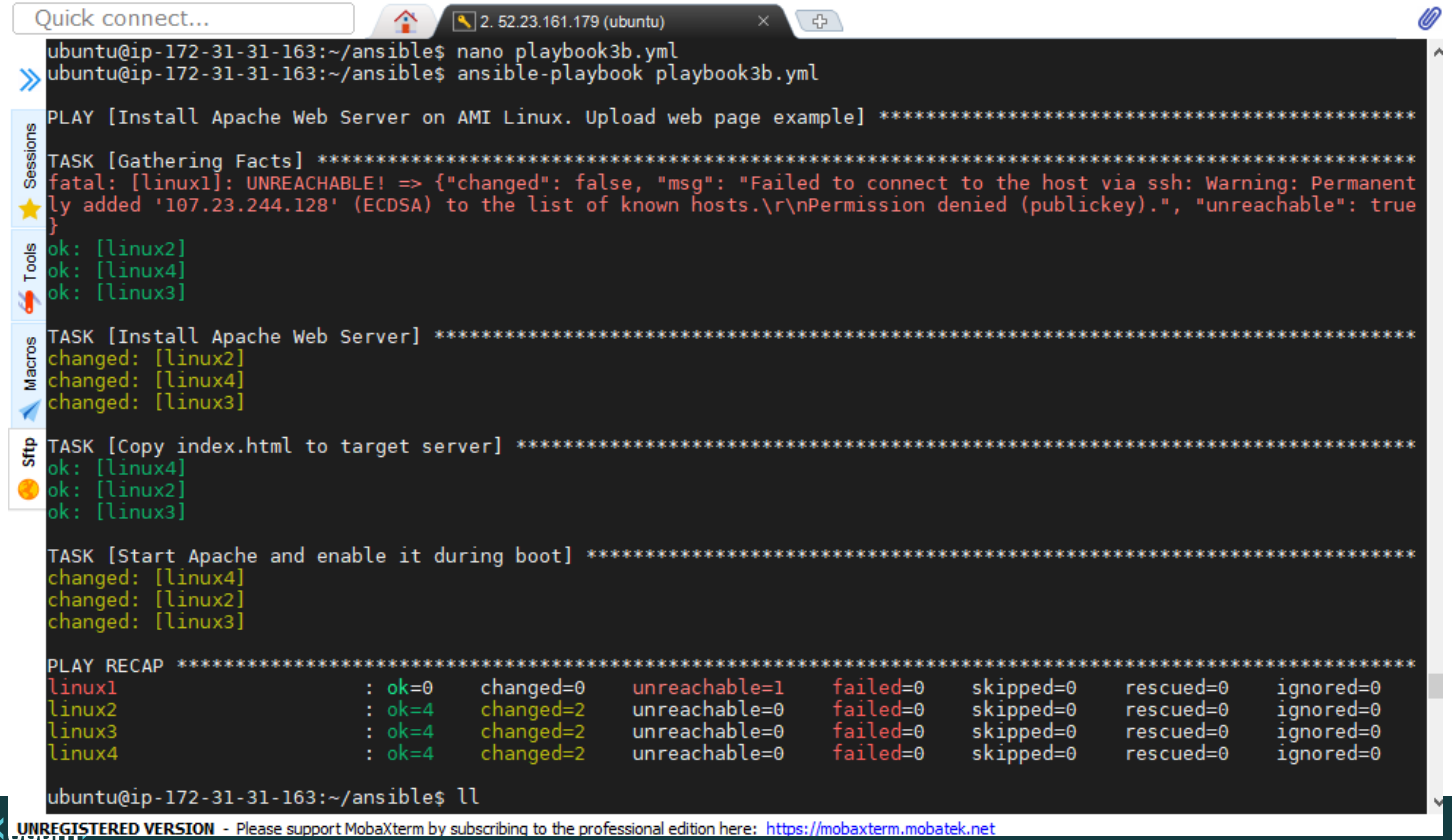
```
 GNU nano 2.5.3                              File: playbook3b.yml

---
- name: Install Apache Web Server on AMI Linux. Upload web page example
  hosts: all
  become: yes


  vars:
    source_file: index.html
    destin_file: /var/www/html


  tasks:
  - name: Install Apache Web Server
    yum:  name=httpd state=latest

  - name: Copy index.html to target server
    copy: src={{ source_file }} dest={{ destin_file }} mode=0555
    notify: Restart Apache

  - name: Start Apache and enable it during boot
    service: name=httpd state=started enabled=yes

  handlers:
  - name: Restart Apache
    service: name=httpd state=restarted
```

ANSIBLE : first playbooks



ANSIBLE : first playbooks

Task: Install Apache Web Server on all servers, owned by your organization.
Also needed to start Apache Web Server and enable it during boot.
Also needed to change default index.html. Servers are on different Linux-based OS



ANSIBLE : first playbooks

Task: Install Apache Web Server on all servers, owned by your organization.
Also needed to start Apache Web Server and enable it during boot.
Also needed to change default index.html. Servers are on different Linux-based OS

Quick connect...

2. 52.23.161.179 (ubuntu)

```
 GNU nano 2.5.3                          File: hosts.txt

[staging]
linux1   ansible_host=107.23.244.128

[test]
linux3   ansible_host=3.95.147.133

[production]
linux2   ansible_host=52.90.113.69
linux4   ansible_host=3.89.138.56

[ami_cred:children]
test
production

[deb_cred:children]
staging
```

Sessions Tools Macros

Quick connect...

2. 52.23.161.179 (ubuntu)

```
 GNU nano 2.5.3                          File: group_vars/ami_cred

---
ansible_user                 : ec2-user
ansible_ssh_private_key_file : /home/ubuntu/.ssh/absible.pem
```

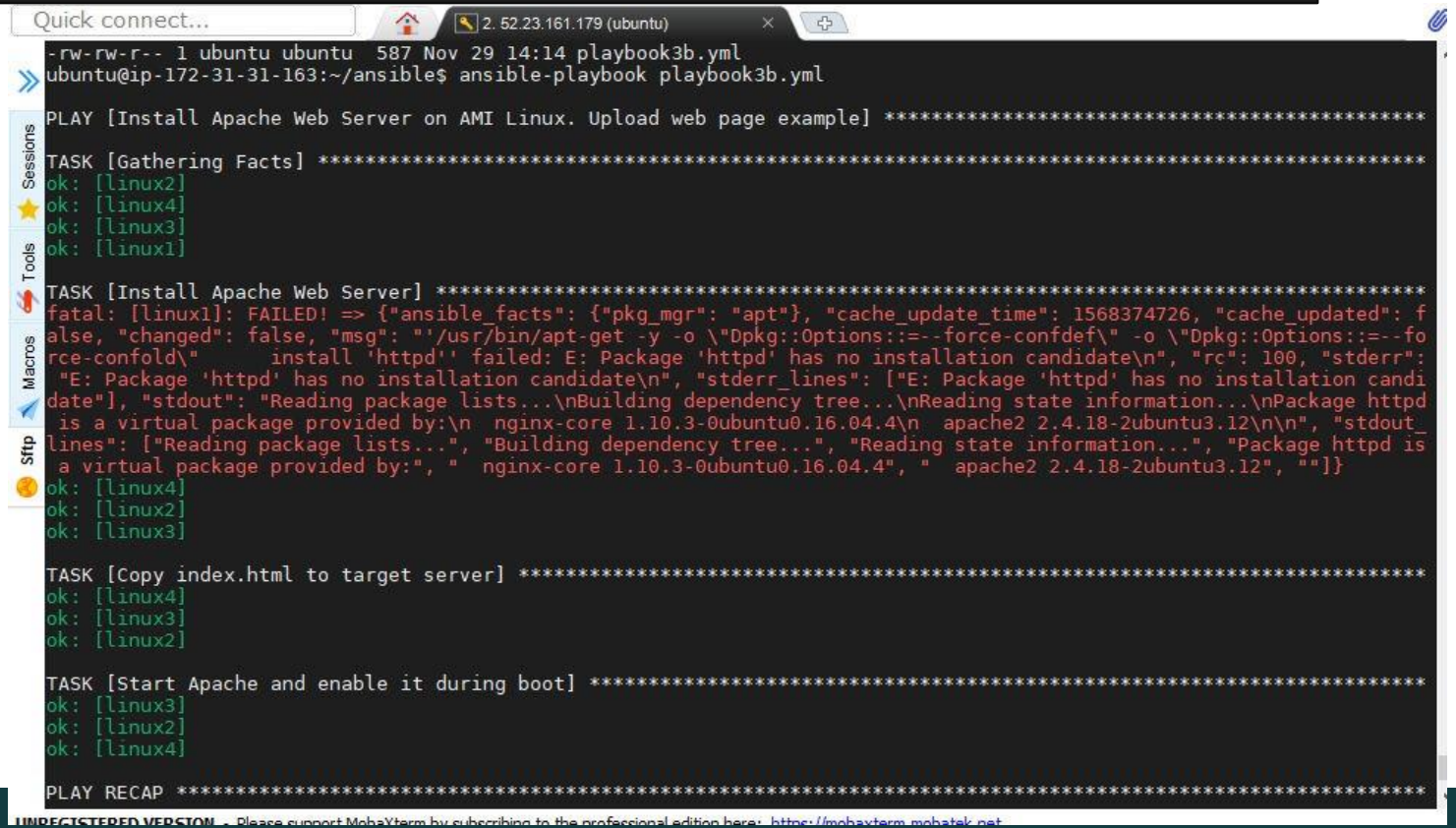
Quick connect...

2. 52.23.161.179 (ubuntu)

```
 GNU nano 2.5.3                          File: group_vars/deb_cred

---
ansible_user                 : ubuntu
ansible_ssh_private_key_file : /home/ubuntu/.ssh/absible.pem
```

ANSIBLE : first playbooks

Task: Install Apache Web Server on all servers, owned by your organization.
Also needed to start Apache Web Server and enable it during boot.
Also needed to change default index.html. Servers are on different Linux-based OS



ANSIBLE : first playbooks

Task: Install Apache Web Server on all servers, owned by your organization.
Also needed to start Apache Web Server and enable it during boot.
Also needed to change default index.html. Servers are on different Linux-based OS

Quick connect...

2. 52.23.161.179 (ubuntu)

```
nano playbook3c.yml
ubuntu@ip-172-31-31-163:~/ansible$ ansible-playbook playbook3c.yml

PLAY [Install Apache Web Server on AMI Linux. Upload web page example] *********

TASK [Gathering Facts] *********************************************************
ok: [linux4]
ok: [linux2]
ok: [linux3]
ok: [linux1]

TASK [Check Linux distro] ******************************************************
ok: [linux3] => {
    "ansible_os_family": "RedHat"
}
ok: [linux2] => {
    "ansible_os_family": "RedHat"
}
ok: [linux4] => {
    "ansible_os_family": "RedHat"
}
ok: [linux1] => {
    "ansible_os_family": "Debian"
}

TASK [Install Apache Web Server] ***********************************************
fatal: [linux1]: FAILED! => {"ansible_facts": {"pkg_mgr": "apt"}, "cache_update_time":
alse, "changed": false, "msg": "'/usr/bin/apt-get -y -o \"Dpkg::Options::=--force-confdef\" -o \"Dpkg::Options::=--fo
rce-confold\"      install 'httpd'' failed: E: Package 'httpd' has no installation candidate\n", "rc": 100, "stderr":
 "E: Package 'httpd' has no installation candidate\n", "stderr_lines": ["E: Package 'httpd' has no installation candi
date"], "stdout": "Reading package lists...\nBuilding dependency tree...\nReading state information...\nPackage httpd
 is a virtual package provided by:\n  nginx-core 1.10.3-0ubuntu0.16.04.4\n  apache2 2.4.18-2ubuntu3.12\n\n", "stdout_
lines": ["Reading package lists...", "Building dependency tree...", "Reading state information...", "Package httpd is
 a virtual package provided by:", "  nginx-core 1.10.3-0ubuntu0.16.04.4", "  apache2 2.4.18-2ubuntu3.12", ""]}
ok: [linux2]
```

Quick connect...

2. 52.23.161.179 (ubuntu)

GNU nano 2.5.3 File: playbook3c.yml

```
---
- name: Install Apache Web Server on AMI Linux. Upload web page example
  hosts: all
  become: yes


  vars:
    source_file: index.html
    destin_file: /var/www/html


  tasks:

  - name: Check Linux distro
    debug: var=ansible_os_family

  - name: Install Apache Web Server
    yum:  name=httpd state=latest

  - name: Copy index.html to target server
    copy: src={{ source_file }} dest={{ destin_file }} mode=0555
    notify: Restart Apache

  - name: Start Apache and enable it during boot
    service: name=httpd state=started enabled=yes

  handlers:
  - name: Restart Apache
    service: name=httpd state=restarted
```

ANSIBLE : first playbooks

Task: Install Apache Web Server on all servers, owned by your organization.
Also needed to start Apache Web Server and enable it during boot.
Also needed to change default index.html. Servers are on different Linux-based OS

```
ubuntu@ip-172-31-31-163:~/ansible$ ansible-playbook playbook3c.yml

PLAY [Install Apache Web Server on AMI Linux. Upload web page example] ****

TASK [Gathering Facts] *********************************************************
ok: [linux2]
ok: [linux4]
ok: [linux3]
ok: [linux1]

TASK [Check Linux distro] ******************************************************
ok: [linux3] => {
    "ansible_os_family": "RedHat"
}
ok: [linux2] => {
    "ansible_os_family": "RedHat"
}
ok: [linux4] => {
    "ansible_os_family": "RedHat"
}
ok: [linux1] => {
    "ansible_os_family": "Debian"
}

TASK [Install Apache Web Server on RedHat Family] ******************************
skipping: [linux1]
ok: [linux2]
ok: [linux3]
ok: [linux4]

TASK [Install Apache Web Server on Debian Family] ******************************
skipping: [linux3]
skipping: [linux2]
skipping: [linux4]
fatal: [linux1]: FAILED! => {"cache_update_time": 1568374726, "cache_update
/bin/apt-get -y -o \"Dpkg::Options::=--force-confdef\" -o \"Dpkg::Options::
 failed: E: Failed to fetch http://security.ubuntu.com/ubuntu/pool/main/a/a
4.deb  404  Not Found [IP: 54.152.129.43 80]\n\nE: Failed to fetch http://s
he2/apache2-utils_2.4.18-2ubuntu3.12_amd64.deb  404  Not Found [IP: 54.152.
curity.ubuntu.com/ubuntu/pool/main/a/apache2/apache2-data_2.4.18-2ubuntu3.1
43 80]\n\nE: Failed to fetch http://security.ubuntu.com/ubuntu/pool/main/a/
eb  404  Not Found [IP: 54.152.129.43 80]\n\nE: Unable to fetch some archiv
-fix-missing?\n", "rc": 100, "stderr": "E: Failed to fetch http://security.
he2-bin_2.4.18-2ubuntu3.12_amd64.deb  404  Not Found [IP: 54.152.129.43 80]
ntu.com/ubuntu/pool/main/a/apache2/apache2-utils_2.4.18-2ubuntu3.12_amd64.d
n\nE: Failed to fetch http://security.ubuntu.com/ubuntu/pool/main/a/apache2
404  Not Found [IP: 54.152.129.43 80]\n\nE: Failed to fetch http://security
che2_2.4.18-2ubuntu3.12_amd64.deb  404  Not Found [IP: 54.152.129.43 80]\n\
un apt-get update or try with --fix-missing?\n", "stderr_lines": ["E: Faile
tu/pool/main/a/apache2/apache2-bin_2.4.18-2ubuntu3.12_amd64.deb  404  Not F
ed to fetch http://security.ubuntu.com/ubuntu/pool/main/a/apache2/apache2-u
t Found [IP: 54.152.129.43 80]", "", "E: Failed to fetch http://security.ub
2-data_2.4.18-2ubuntu3.12_all.deb  404  Not Found [IP: 54.152.129.43 80]",
untu.com/ubuntu/pool/main/a/apache2/apache2_2.4.18-2ubuntu3.12_amd64.deb  4
 "E: Unable to fetch some archives, maybe run apt-get update or try with --
 lists...\nBuilding dependency tree...\nReading state information...\nThe f
```

```
 GNU nano 2.5.3                          File: playbook3c.yml

---
- name: Install Apache Web Server on AMI Linux. Upload web page example
  hosts: all
  become: yes


  vars:
    source_file: index.html
    destin_file: /var/www/html


  tasks:

  - name: Check Linux distro
    debug: var=ansible_os_family

  - name: Install Apache Web Server on RedHat Family
    yum:  name=httpd state=latest
    when: ansible_os_family == "RedHat"

  - name: Install Apache Web Server on Debian Family
    apt:  update_cache=yes name=apache2 state=latest
    when: ansible_os_family == "Debian"

  - name: Copy index.html to target server
    copy: src={{ source_file }} dest={{ destin_file }} mode=0555
    #notify: Restart Apache

  - name: Start Apache and enable it during boot
    service: name=httpd state=started enabled=yes
    when: ansible_os_family == "RedHat"

  - name: Start Apache and enable it during boot
    service: name=apache2 state=started enabled=yes
    when: ansible_os_family == "Debian"

  handlers:
  - name: Restart Apache
    service: name=httpd state=restarted
```

ANSIBLE : first playbooks

Task: Install Apache Web Server on all servers, owned by your organization.
Also needed to start Apache Web Server and enable it during boot.
Also needed to change default index.html. Servers are on different Linux-based OS

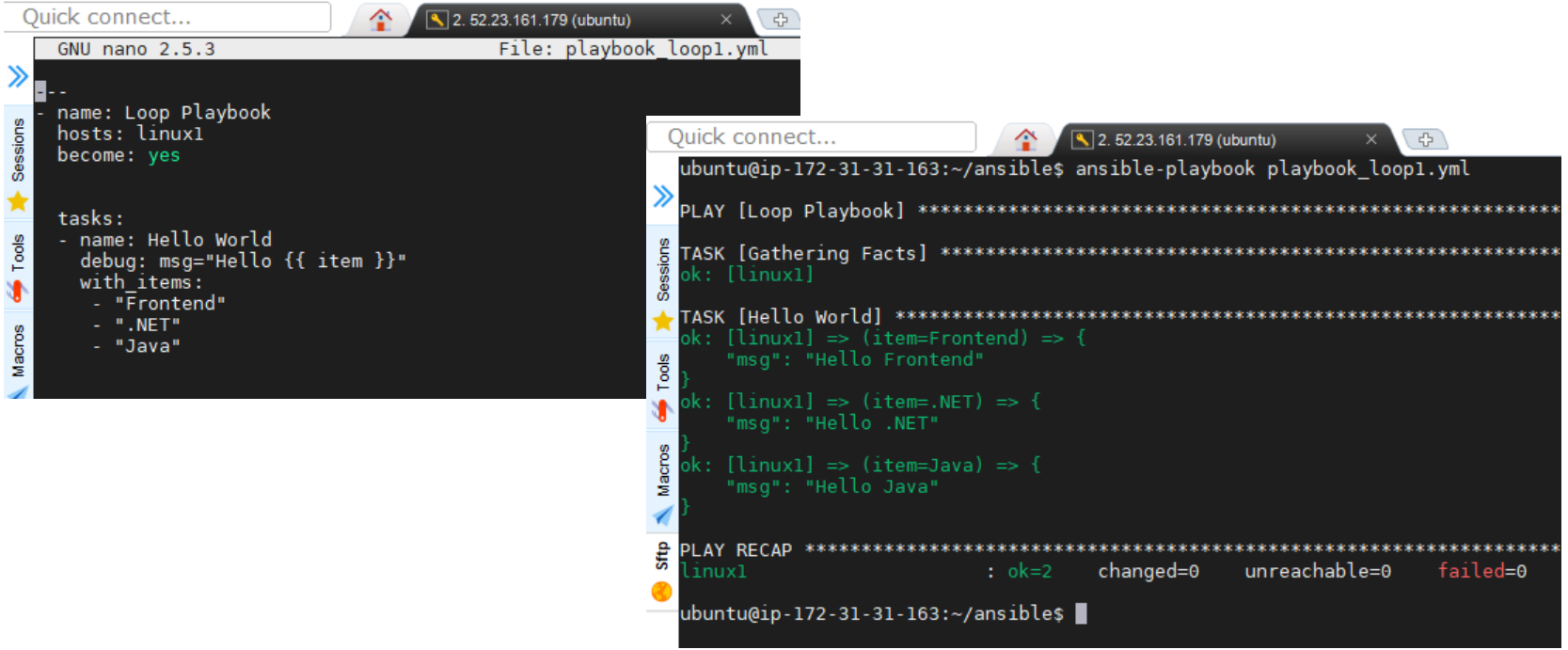
Quick connect... | 2. 52.23.161.179 (ubuntu)

```
 GNU nano 2.5.3                        File: playbook4.yml

---
- name: Install Apache Web Server on AMI Linux. Upload web page example
  hosts: all
  become: yes


  vars:
    source_file: index.html
    destin_file: /var/www/html


  tasks:

  - name: Check Linux distro
    debug: var=ansible_os_family

  - block: # For RedHat

    - name: Install Apache Web Server on RedHat Family
      yum:  name=httpd state=latest

    - name: Copy index.html to target server
      copy: src={{ source_file }} dest={{ destin_file }} mode=0555
      notify: Restart Apache RedHat

    - name: Start Apache and enable it during boot
      service: name=httpd state=started enabled=yes

    when: ansible_os_family == "RedHat"

  - block: #For Debian

    - name: Install Apache Web Server on Debian Family
      apt:  update_cache=yes name=apache2 state=latest

    - name: Copy index.html to target server
      copy: src={{ source_file }} dest={{ destin_file }} mode=0555
      notify: Restart Apache Debian

    - name: Start Apache and enable it during boot
      service: name=apache2 state=started enabled=yes

    when: ansible_os_family == "Debian"

  handlers:
  - name: Restart Apache RedHat
    service: name=httpd state=restarted

  - name: Restart Apache Debian
    service: name=apache2 state=restarted
```

Quick connect... | 2. 52.23.161.179 (ubuntu)

```
TASK [Check Linux distro] ******************************************************
ok: [linux3] => {
    "ansible_os_family": "RedHat"
}
ok: [linux2] => {
    "ansible_os_family": "RedHat"
}
ok: [linux4] => {
    "ansible_os_family": "RedHat"
}
ok: [linux1] => {
    "ansible_os_family": "Debian"
}

TASK [Install Apache Web Server on RedHat Family] ******************************
skipping: [linux1]
ok: [linux2]
ok: [linux4]
ok: [linux3]

TASK [Copy index.html to target server] ****************************************
skipping: [linux1]
ok: [linux4]
ok: [linux2]
ok: [linux3]

TASK [Start Apache and enable it during boot] **********************************
skipping: [linux1]
ok: [linux4]
ok: [linux3]
ok: [linux2]

TASK [Install Apache Web Server on Debian Family] ******************************
skipping: [linux3]
skipping: [linux2]
skipping: [linux4]
ok: [linux1]

TASK [Copy index.html to target server] ****************************************
skipping: [linux3]
skipping: [linux2]
skipping: [linux4]
ok: [linux1]

TASK [Start Apache and enable it during boot] **********************************
skipping: [linux3]
skipping: [linux2]
skipping: [linux4]
ok: [linux1]

PLAY RECAP *********************************************************************
linux1                     : ok=5    changed=0    unreachable=0    failed=0    skipped=3
linux2                     : ok=5    changed=0    unreachable=0    failed=0    skipped=3
linux3                     : ok=5    changed=0    unreachable=0    failed=0    skipped=3
linux4                     : ok=5    changed=0    unreachable=0    failed=0    skipped=3

ubuntu@ip-172-31-31-163:~/ansible$
```

ANSIBLE : first playbooks



ANSIBLE : first playbooks

Task: Make some actions on remote server,
Results should be viewed by output console

Quick connect...

3. 54.198.110.160 (ubuntu)

```
ubuntu@ip-172-31-31-163:~/ansible$ ansible-playbook playbook_loop1.yml

PLAY [Loop Playbook] ***********************************************************

TASK [Gathering Facts] *********************************************************
ok: [linux1]

TASK [Hello World] *************************************************************
ok: [linux1] => (item=Frontend) => {
    "msg": "Hello Frontend"
}
ok: [linux1] => (item=.NET) => {
    "msg": "Hello .NET"
}
ok: [linux1] => (item=Java) => {
    "msg": "Hello Java"
}

TASK [Until example] ***********************************************************
FAILED - RETRYING: Until example (5 retries left).
FAILED - RETRYING: Until example (4 retries left).
changed: [linux1]

TASK [Print Output] ************************************************************
ok: [linux1] => {
    "output.stdout": "AAA"
}

PLAY RECAP *********************************************************************
linux1                     : ok=4    changed=1    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0
```

Sessions Tools Macros Sftp

Quick connect...

3. 54.198.110.160 (ubuntu)

GNU nano 2.5.3 File: playbook_loop1.yml

```
---
- name: Loop Playbook
  hosts: linux1
  become: yes


  tasks:
  - name: Hello World
    debug: msg="Hello {{ item }}"
    with_items:
      - "Frontend"
      - ".NET"
      - "Java"

  - name: Until example
    shell: echo -n A >> example.txt && cat example.txt
    register: output
    delay: 2
    retries: 5
    until: output.stdout.find("AAA") == false


  - name: Print Output
    debug:
      var: output.stdout
```

Sessions Tools Macros Sftp

ANSIBLE : first playbooks

Task: Copy WebPage (some files) to remote server using loop

Quick connect...

3. 54.198.110.160 (ubuntu)

GNU nano 2.5.3 File: playbook5.yml

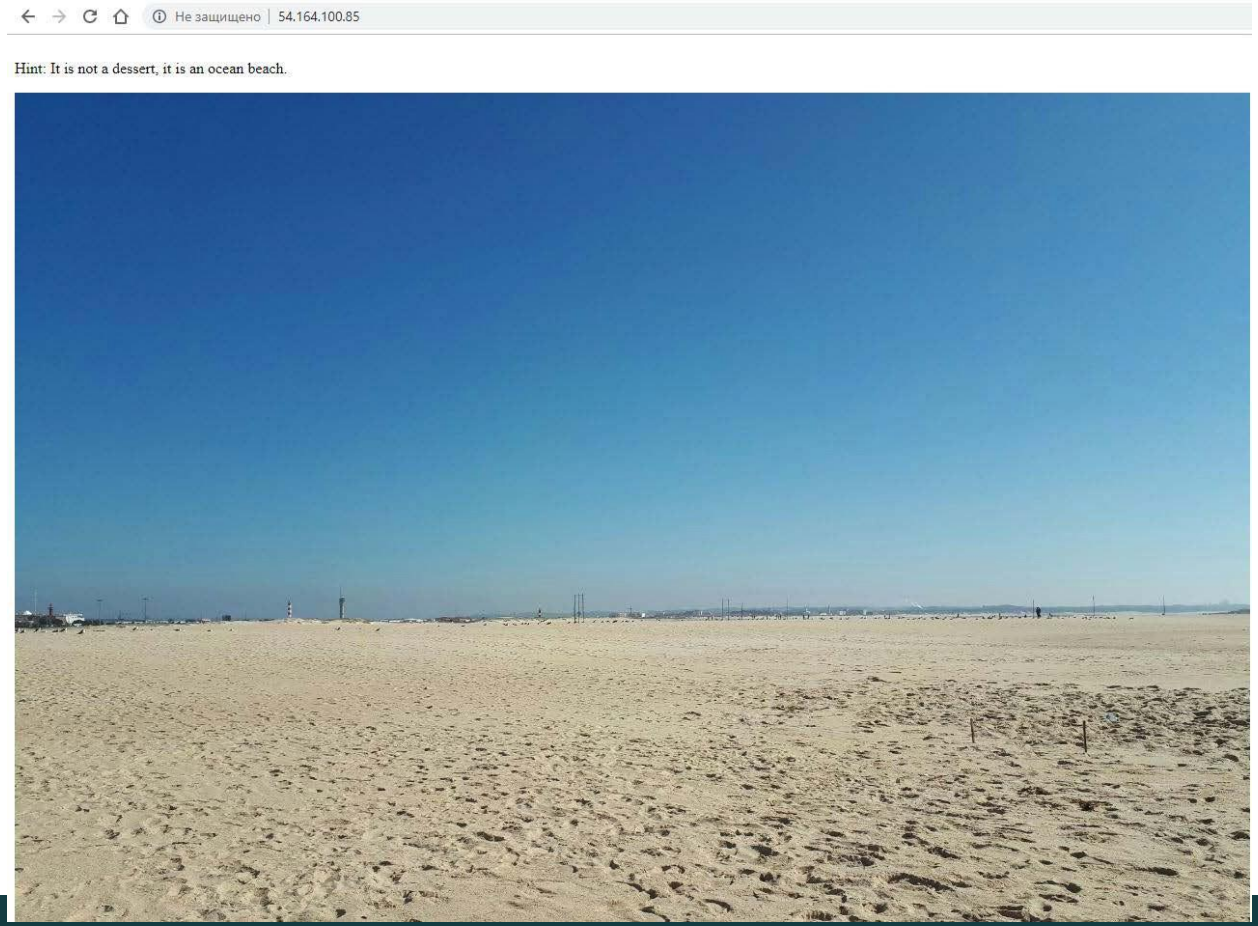
```
---
- name: Install Apache Web Server on AMI Linux. Upload web page example
  hosts: all
  become: yes


  vars:
    source_dir: ./MyWebSite
    destin_dir: /var/www/html


  tasks:

  - name: Check Linux distro
    debug: var=ansible_os_family

  - block: # For RedHat

    - name: Install Apache Web Server on RedHat Family
      yum:  name=httpd state=latest

    - name: Start Apache and enable it during boot
      service: name=httpd state=started enabled=yes

    when: ansible_os_family == "RedHat"

  - block: #For Debian

    - name: Install Apache Web Server on Debian Family
      apt:  update_cache=yes name=apache2 state=latest

    - name: Start Apache and enable it during boot
      service: name=apache2 state=started enabled=yes

    when: ansible_os_family == "Debian"


  - name: Copy dir "MyWebServer" to target server
    copy: src={{ source_dir }}/{{ item }} dest={{ destin_dir }} mode=0555
    loop:
     - "index.html"
     - "photo.jpg"
    notify:
        - Restart Apache RedHat
        - Restart Apache Debian

  handlers:
  - name: Restart Apache RedHat
    service: name=httpd state=restarted
    when: ansible_os_family == "RedHat"

  - name: Restart Apache Debian
    service: name=apache2 state=restarted
    when: ansible_os_family == "Debian"
```

Quick connect...

3. 54.198.110.160 (ubuntu)

```
ubuntu@ip-172-31-31-163:~/ansible$ ansible-playbook playbook5.yml

PLAY [Install Apache Web Server on AMI Linux. Upload web page example] *********************************************************

TASK [Gathering Facts] *********************************************************************************************************
ok: [linux4]
ok: [linux2]
ok: [linux3]
ok: [linux1]

TASK [Check Linux distro] ******************************************************************************************************
ok: [linux3] => {
    "ansible_os_family": "RedHat"
}
ok: [linux2] => {
    "ansible_os_family": "RedHat"
}
ok: [linux4] => {
    "ansible_os_family": "RedHat"
}
ok: [linux1] => {
    "ansible_os_family": "Debian"
}

TASK [Install Apache Web Server on RedHat Family] ******************************************************************************
skipping: [linux1]
ok: [linux4]
ok: [linux3]
ok: [linux2]

TASK [Start Apache and enable it during boot] **********************************************************************************
skipping: [linux1]
ok: [linux2]
ok: [linux4]
ok: [linux3]

TASK [Install Apache Web Server on Debian Family] ******************************************************************************
skipping: [linux3]
skipping: [linux2]
skipping: [linux4]
ok: [linux1]

TASK [Start Apache and enable it during boot] **********************************************************************************
skipping: [linux3]
skipping: [linux2]
skipping: [linux4]
ok: [linux1]

TASK [Copy dir "MyWebServer" to target server] *********************************************************************************
changed: [linux2] => (item=index.html)
changed: [linux3] => (item=index.html)
changed: [linux4] => (item=index.html)
changed: [linux1] => (item=index.html)
changed: [linux2] => (item=photo.jpg)
changed: [linux3] => (item=photo.jpg)
changed: [linux4] => (item=photo.jpg)
changed: [linux1] => (item=photo.jpg)

RUNNING HANDLER [Restart Apache RedHat] ****************************************************************************************
skipping: [linux1]
changed: [linux2]
changed: [linux3]
changed: [linux4]

RUNNING HANDLER [Restart Apache Debian] ****************************************************************************************
skipping: [linux2]
skipping: [linux3]
skipping: [linux4]
changed: [linux1]

PLAY RECAP *********************************************************************************************************************
linux1                     : ok=6    changed=2    unreachable=0    failed=0    skipped=3    rescued=0    ignored=0
linux2                     : ok=6    changed=2    unreachable=0    failed=0    skipped=3    rescued=0    ignored=0
linux3                     : ok=6    changed=2    unreachable=0    failed=0    skipped=3    rescued=0    ignored=0
linux4                     : ok=6    changed=2    unreachable=0    failed=0    skipped=3    rescued=0    ignored=0
```

ANSIBLE : first playbooks



ANSIBLE : first playbooks

Task: Customize WebPage on remote servers using template and jinja

```
GNU nano 2.5.3                File: playbook5a.yml

---
- name: Install Apache Web Server on AMI Linux. Upload web page example
  hosts: all
  become: yes


  vars:
    source_dir: ./MyWebSite
    destin_dir: /var/www/html


  tasks:

  - name: Check Linux distro
    debug: var=ansible_os_family

  - block: # For RedHat

    - name: Install Apache Web Server on RedHat Family
      yum:  name=httpd state=latest

    - name: Start Apache and enable it during boot
      service: name=httpd state=started enabled=yes

    when: ansible_os_family == "RedHat"

  - block: #For Debian

    - name: Install Apache Web Server on Debian Family
      apt:  update_cache=yes name=apache2 state=latest

    - name: Start Apache and enable it during boot
      service: name=apache2 state=started enabled=yes

    when: ansible_os_family == "Debian"

  - name: Generate index.html using template
    template: src={{ source_dir }}/index.j2 dest={{ destin_dir }}/index.html  mode=0555
    notify:
        - Restart Apache RedHat
        - Restart Apache Debian

  - name: Copy dir "MyWebServer" to target server
    copy: src={{ source_dir }}/photo.jpg dest={{ destin_dir }} mode=0555
    notify:
        - Restart Apache RedHat
        - Restart Apache Debian

  handlers:
  - name: Restart Apache RedHat
    service: name=httpd state=restarted
    when: ansible_os_family == "RedHat"

  - name: Restart Apache Debian
    service: name=apache2 state=restarted
    when: ansible_os_family == "Debian"
```

```
GNU nano 2.5.3                File: index.j2

<html>
<header><title>Can you guess, where is it?</title></header>
<body>
<br>Server Host Name is {{ ansible_hostname }}<br>
Linux Distro is {{ ansible_os_family }} <br>
Host IP Address is {{ ansible_default_ipv4.address }}<br>
<br>Can you guess, where is it?<br>
<br>This page is generated by Ansible<br>
<br>Hint: It is not a dessert, it is an ocean beach.<br>
<p><img src="photo.jpg" alt="Portugal: Figueira da Foz"></p>
</body>
</html>
```

```
ubuntu@ip-172-31-31-163:~/ansible$ ansible-playbook playbook5a.yml

PLAY [Install Apache Web Server on AMI Linux. Upload web page example] ***********************************

TASK [Gathering Facts] ***********************************************************************************
ok: [linux4]
ok: [linux3]
ok: [linux2]
ok: [linux1]

TASK [Check Linux distro] ********************************************************************************
ok: [linux1] => {
    "ansible_os_family": "Debian"
}
ok: [linux3] => {
    "ansible_os_family": "RedHat"
}

                                                                                  on RedHat Family] ***********************************************************

                                                                                  t during boot] ***********************************************************

                                                                                  on Debian Family] ***********************************************************

skipping: [linux4]
changed: [linux1]

TASK [Start Apache and enable it during boot] ************************************************************
skipping: [linux3]
skipping: [linux2]
skipping: [linux4]
ok: [linux1]

TASK [Generate index.html using template] ****************************************************************
changed: [linux2]
changed: [linux4]
changed: [linux3]
changed: [linux1]

TASK [Copy dir "MyWebServer" to target server] ***********************************************************
ok: [linux4]
ok: [linux2]
ok: [linux3]
ok: [linux1]

RUNNING HANDLER [Restart Apache RedHat] ******************************************************************
skipping: [linux1]
changed: [linux2]
changed: [linux4]
changed: [linux3]

RUNNING HANDLER [Restart Apache Debian] ******************************************************************
skipping: [linux2]
skipping: [linux4]
skipping: [linux3]
changed: [linux1]

PLAY RECAP ***********************************************************************************************
linux1                     : ok=7    changed=3    unreachable=0    failed=0    skipped=3    rescued=0    i
gnored=0
```

ANSIBLE : first playbooks

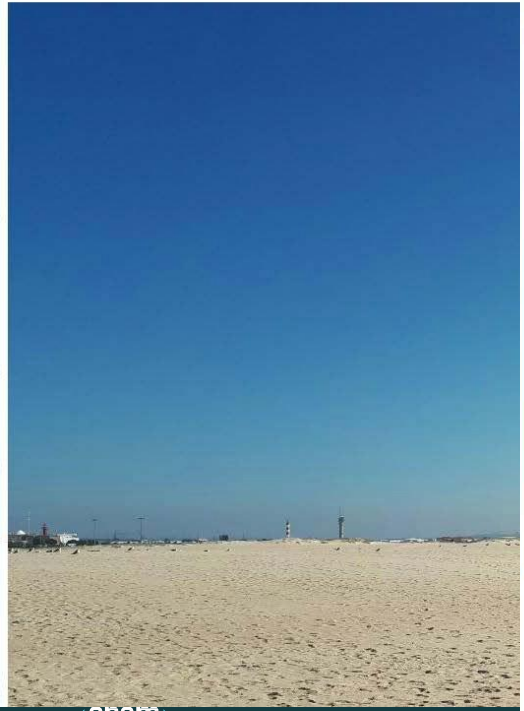
Не защищено | 54.164.100.85

Server Host Name is ip-172-31-43-173
Linux Distro is Debian
Host IP Address is 172.31.43.173

Can you guess, where is it?

This page is generated by Ansible

Hint: It is not a dessert, it is an ocean beach.



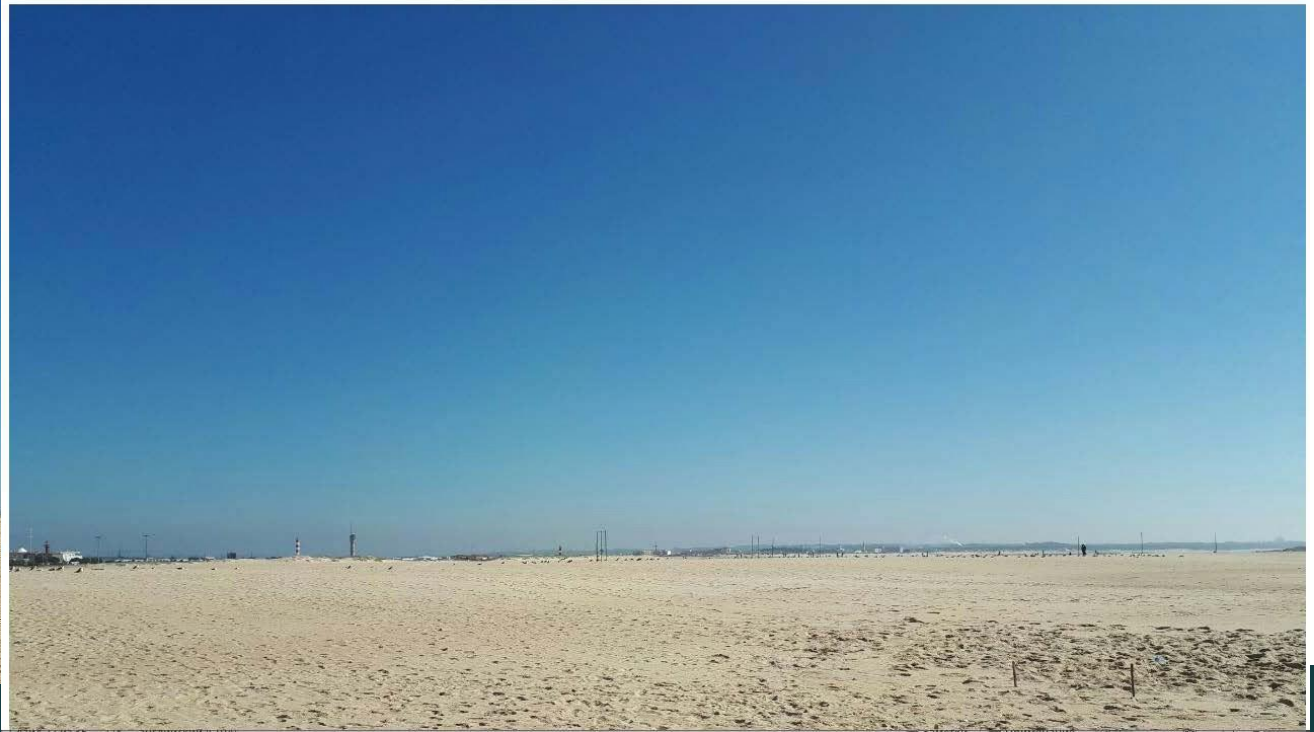
Не защищено | 52.70.43.222

Server Host Name is ip-172-31-83-148
Linux Distro is RedHat
Host IP Address is 172.31.83.148

Can you guess, where is it?

This page is generated by Ansible

Hint: It is not a dessert, it is an ocean beach.



Q&A

Thank you!