

MUSFIRA FAROOQ

2023-BSE-045

CLOUD COMPUTING FINAL EXAM

Q1 – AWS IAM Setup Using AWS CLI and Console Verification

```
● @Musfira-0514 →/workspaces/exam (main) $ aws iam create-group --group-name SoftwareEngineering
{
  "Group": {
    "Path": "/",
    "GroupName": "SoftwareEngineering",
    "GroupId": "AGPAVSVUK5OYG535GBBHJ",
    "Arn": "arn:aws:iam::383704034224:group/SoftwareEngineering",
    "CreateDate": "2026-01-19T07:35:40+00:00"
  }
}
○ @Musfira-0514 →/workspaces/exam (main) $
```

```
● @Musfira-0514 →/workspaces/exam (main) $ aws iam get-group --group-name SoftwareEngineering
{
  "Users": [],
  "Group": {
    "Path": "/",
    "GroupName": "SoftwareEngineering",
    "GroupId": "AGPAVSVUK5OYG535GBBHJ",
    "Arn": "arn:aws:iam::383704034224:group/SoftwareEngineering",
    "CreateDate": "2026-01-19T07:35:40+00:00"
  }
}
○ @Musfira-0514 →/workspaces/exam (main) $
```

```
● @Musfira-0514 → /workspaces/exam (main) $ aws iam create-user --user-name Musfira
{
  "User": {
    "Path": "/",
    "UserName": "Musfira",
    "UserId": "AIDAVSVUK5OYGK4IQUN53",
    "Arn": "arn:aws:iam::383704034224:user/Musfira",
    "CreateDate": "2026-01-19T07:37:15+00:00"
  }
}
```

```
○ @Musfira-0514 → /workspaces/exam (main) $
```

```
● @Musfira-0514 → /workspaces/exam (main) $ aws iam get-user --user-name Musfira
{
  "User": {
    "Path": "/",
    "UserName": "Musfira",
    "UserId": "AIDAVSVUK5OYGK4IQUN53",
    "Arn": "arn:aws:iam::383704034224:user/Musfira",
    "CreateDate": "2026-01-19T07:37:15+00:00"
  }
}
```

```
○ @Musfira-0514 → /workspaces/exam (main) $
```

```
● @Musfira-0514 → /workspaces/exam (main) $ aws iam add-user-to-group --user-name Musfira --group-name SoftwareEngineering
● @Musfira-0514 → /workspaces/exam (main) $ aws iam get-group --group-name SoftwareEngineering
{
  "Users": [
    {
      "Path": "/",
      "UserName": "Musfira",
      "UserId": "AIDAVSVUK5OYGK4IQUN53",
      "Arn": "arn:aws:iam::383704034224:user/Musfira",
      "CreateDate": "2026-01-19T07:37:15+00:00"
    }
  ],
  "Group": {
    "Path": "/",
    "GroupName": "SoftwareEngineering",
    "GroupId": "AGPAVSVUK5OYG535GBBHJ",
    "Arn": "arn:aws:iam::383704034224:group/SoftwareEngineering",
    "CreateDate": "2026-01-19T07:35:40+00:00"
  }
}
```

```
○ @Musfira-0514 → /workspaces/exam (main) $
```

```
● @Musfira-0514 → /workspaces/exam (main) $ aws iam attach-group-policy \
  --group-name SoftwareEngineering \
  --policy-arn arn:aws:iam::aws:policy/AdministratorAccess
```

User groups (1) [Info](#)

Search

Users (3) [Info](#)

 Search

<input type="checkbox"/>	User name	▲	Path	▼	Group: ▼	Last activity	▼	MFA	▼	Password age	▼	Console last sign-in	▼	Access key ID	▼
<input type="checkbox"/>	ansibe-user		/		0	Yesterday		-		12 days		-		Active - AKIAVSVUK5O...	
<input type="checkbox"/>	exam		/		0	9 minutes ago		-		19 hours		-		Active - AKIAVSVUK5O...	
<input type="checkbox"/>	Musfira		/		1	-		-		-		-		-	

Musfira
Info
Delete

Summary

ARN
arn:aws:iam::383704034224:user/Musfira

Console access
Disabled

Access key 1
[Create access key](#)

Created
January 19, 2026, 12:37 (UTC+05:00)

Last console sign-in
-

Permissions
Groups (1)
Tags
Security credentials
Last Accessed

Permissions policies (1)

Remove
Add permissions

Permissions are defined by policies attached to the user directly or through groups.

Search

Filter by Type
All types

☐ Policy name

☐ Type

☐ Attached via

☐ AdministratorAccess
AWS managed - job function
Group SoftwareEngineering

▶ Permissions boundary (not set)

Q2 – Terraform Lab: Simple AWS Environment with Nginx over HTTPS

```

• @Musfira-0514 → /workspaces/exam (main) $ touch main.tf
• @Musfira-0514 → /workspaces/exam (main) $ nano main.tf
• @Musfira-0514 → /workspaces/exam (main) $ cat main.tf
  provider "aws" {
    shared_config_files      = ["~/.aws/config"]
    shared_credentials_files = ["~/.aws/credentials"]
  }
○ @Musfira-0514 → /workspaces/exam (main) $

```

GNU nano 7.2

```
provider "aws" {  
  shared_config_files      = ["~/.aws/config"]  
  shared_credentials_files = ["~/.aws/credentials"]  
}
```

```
resource "aws_vpc" "myapp_vpc" {  
  cidr_block = var.vpc_cidr_block  
  
  tags = {  
    Name = "${var.env_prefix}-vpc"  
  }  
}
```

@Musfira-0514 → /workspaces/exam (main) \$ cat main.tf

```
resource "aws_subnet" "myapp_subnet" {  
  vpc_id            = aws_vpc.myapp_vpc.id  
  cidr_block        = var.subnet_cidr_block  
  availability_zone = var.availability_zone  
  
  tags = {  
    Name = "${var.env_prefix}-subnet-1"  
  }  
}
```

```
@Musfira-0514 →/workspaces/exam (main) $ cat main.tf
```

```
resource "aws_internet_gateway" "myapp_igw" {  
  vpc_id = aws_vpc.myapp_vpc.id  
  
  tags = {  
    Name = "${var.env_prefix}-igw"  
  }  
}
```

```
@Musfira-0514 →/workspaces/exam (main) $ cat main.tf
```

```
resource "aws_default_route_table" "default_rt" {  
  default_route_table_id = aws_vpc.myapp_vpc.default_route_table_id  
  
  route {  
    cidr_block = "0.0.0.0/0"  
    gateway_id = aws_internet_gateway.myapp_igw.id  
  }  
  
  tags = {  
    Name = "${var.env_prefix}-rt"  
  }  
}
```

```
@Musfira-0514 →/workspaces/exam (main) $ cat main.tf
```

```
resource "aws_default_security_group" "default_sg" {  
  vpc_id = aws_vpc.myapp_vpc.id
```

```
  
  ingress {  
    description = "SSH"  
    from_port   = 22  
    to_port     = 22  
    protocol    = "tcp"  
    cidr_blocks = [local.my_ip]  
  }  
}
```

```
  
  ingress {  
    description = "HTTP"  
    from_port   = 80  
    to_port     = 80  
    protocol    = "tcp"  
    cidr_blocks = ["0.0.0.0/0"]  
  }  
}
```

```
  
  ingress {  
    description = "HTTPS"  
    from_port   = 443  
    to_port     = 443  
    protocol    = "tcp"  
    cidr_blocks = ["0.0.0.0/0"]  
  }  
}
```

```
@Musfira-0514 →/workspaces/exam (main) $ cat main.tf
```

```
egress {
  from_port    = 0
  to_port      = 0
  protocol     = "-1"
  cidr_blocks  = ["0.0.0.0/0"]
}

tags = {
  Name = "${var.env_prefix}-default-sg"
}
}
```

```
@Musfira-0514 →/workspaces/exam (main) $ cat main.tf
```

```
resource "aws_key_pair" "serverkey" {
  key_name    = "serverkey"
  public_key  = file("~/ssh/id_ed25519.pub")
}
```

```
@Musfira-0514 →/workspaces/exam (main) $ cat main.tf
```

```
}

resource "aws_instance" "myapp_ec2" {
  ami                  = "ami-0d593311db5abb72b"
  instance_type       = var.instance_type
  subnet_id           = aws_subnet.myapp_subnet.id
  availability_zone    = var.availability_zone
  vpc_security_group_ids = [aws_default_security_group.default_sg.id]
  associate_public_ip_address = true
  key_name             = aws_key_pair.serverkey.key_name
  user_data            = file("entry-script.sh")

  tags = {
    Name = "${var.env_prefix}-ec2-instance"
  }
}
```

```
@Musfira-0514 →/workspaces/exam (main) $
```



```
• @Musfira-0514 → /workspaces/exam (main) $ cat entry-script.sh
#!/bin/bash
dnf update -y
dnf install -y nginx openssl

mkdir -p /etc/nginx/ssl

openssl req -x509 -nodes -days 365 \
    -newkey rsa:2048 \
    -keyout /etc/nginx/ssl/selfsigned.key \
    -out /etc/nginx/ssl/selfsigned.crt \
    -subj "/C=PK/ST=Islamabad/L=Islamabad/O=Terraform/CN=localhost"

cat <<EOF > /etc/nginx/conf.d/default.conf
server {
    listen 80;
    return 301 https://\$host\$request_uri;
}

server {
    listen 443 ssl;
    ssl_certificate /etc/nginx/ssl/selfsigned.crt;
    ssl_certificate_key /etc/nginx/ssl/selfsigned.key;

    location / {
        root /usr/share/nginx/html;
        index index.html;
    }
}
EOF

cat <<EOF > /usr/share/nginx/html/index.html
<html>
<body>
```

```
cat <<EOF > /usr/share/nginx/html/index.html
<html>
  <body>
    <h1>This is Musfira Farooq's Terraform environment.</h1>
  </body>
</html>
EOF
```

```
systemctl enable nginx
systemctl restart nginx
```

○ @Musfira-0514 → /workspaces/exam (main) \$ █

```
● @Musfira-0514 → /workspaces/exam (main) $ touch outputs.tf
● @Musfira-0514 → /workspaces/exam (main) $ nano outputs.tf
● @Musfira-0514 → /workspaces/exam (main) $ cat outputs.tf
output "aws_instance_public_ip" {
  value = aws_instance.myapp-server.public_ip
}
```

○ @Musfira-0514 → /workspaces/exam (main) \$ █

```
}
● @Musfira-0514 → /workspaces/exam (main) $ touch locals.tf
● @Musfira-0514 → /workspaces/exam (main) $ nano locals.tf
● @Musfira-0514 → /workspaces/exam (main) $ cat locals.tf
locals {
  my_ip = "${chomp(data.http.my_ip.response_body)}/32"
}

data "http" "my_ip" {
  url = "https://icanhazip.com"
}
```

○ @Musfira-0514 → /workspaces/exam (main) \$ █

```

● @Musfira-0514 →/workspaces/exam (main) $ terraform init
Initializing the backend...
Initializing provider plugins...
- Finding latest version of hashicorp/http...
- Finding latest version of hashicorp/aws...
- Installing hashicorp/http v3.5.0...
- Installed hashicorp/http v3.5.0 (signed by HashiCorp)
- Installing hashicorp/aws v6.28.0...
- Installed hashicorp/aws v6.28.0 (signed by HashiCorp)
Terraform has created a lock file .terraform.lock.hcl to record the provider
selections it made above. Include this file in your version control repository
so that Terraform can guarantee to make the same selections by default when
you run "terraform init" in the future.

```

Terraform has been successfully initialized!

You may now begin working with Terraform. Try running "terraform plan" to see any changes that are required for your infrastructure. All Terraform commands should now work.

If you ever set or change modules or backend configuration for Terraform, rerun this command to reinitialize your working directory. If you forget, other commands will detect it and remind you to do so if necessary.

```

○ @Musfira-0514 →/workspaces/exam (main) $ █

```

```

● @Musfira-0514 →/workspaces/exam (main) $ ssh-keygen -t ed25519 -f ~/.ssh/id_ed25519 -N
Generating public/private ed25519 key pair.
Created directory '/home/codespace/.ssh'.
Your identification has been saved in /home/codespace/.ssh/id_ed25519
Your public key has been saved in /home/codespace/.ssh/id_ed25519.pub
The key fingerprint is:
SHA256:Dx8LWcWErJkiqLMocMlEG41JgrVtfagTiZ1XOK9Wvjw codespace@codespaces-62eff3
The key's randomart image is:

```

```

+--[ED25519 256]--+
|ooo+   ... +o   |
|..==.+oo  o..   |
| .o+B +o.+   .   |
|  +..+..*o     |
| + .o. =S  .    |
|+ +  .o . = o   |
|o+   . . .+    |
|+      E       |
|.              |
+-----[SHA256]-----+

```

```

○ @Musfira-0514 →/workspaces/exam (main) $ █

```

```

● @Musfira-0514 →/workspaces/exam (main) $ ls ~/.ssh
id_ed25519  id_ed25519.pub

```

```

○ @Musfira-0514 →/workspaces/exam (main) $ █

```

• @Musfira-0514 → /workspaces/exam (main) \$ terraform validate
Success! The configuration is valid.

```
@Musfira-0514 → /workspaces/exam (main) $ terraform plan
data.http.my_ip: Reading...
data.http.my_ip: Read complete after 0s [id=https://icanhazip.com]

Terraform used the selected providers to generate the following execution plan. Resource actions are indicated with the following symbols:
+ create

Terraform will perform the following actions:

# aws_default_route_table.default_rt will be created
+ resource "aws_default_route_table" "default_rt" {
+   arn                = (known after apply)
+   default_route_table_id = (known after apply)
+   id                 = (known after apply)
+   owner_id           = (known after apply)
+   region              = "me-central-1"
+   route               = [
+     + {
+       + cidr_block      = "0.0.0.0/0"
+       + gateway_id      = (known after apply)
+       # (10 unchanged attributes hidden)
+     },
+   ]
+   tags                = {
+     + "Name" = "dev-rt"
+   }
+   tags_all             = {
+     + "Name" = "dev-rt"
+   }
+   vpc_id               = (known after apply)
}

# aws_default_security_group.default_sg will be created
```

Plan: 7 to add, 0 to change, 0 to destroy.

Changes to Outputs:

+ aws_instance_public_ip = (known after apply)

Note: You didn't use the -out option to save this plan, so Terraform

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```
@Musfira-0514 →/workspaces/exam (main) $ terraform apply
```

```
+ metadata_options (known after apply)
+ network_interface (known after apply)
+ primary_network_interface (known after apply)
+ private_dns_name_options (known after apply)
+ root_block_device (known after apply)
}
```

Plan: 1 to add, 0 to change, 0 to destroy.

Changes to Outputs:

```
+ aws_instance_public_ip = (known after apply)
```

Do you want to perform these actions?

Terraform will perform the actions described above.
Only 'yes' will be accepted to approve.

Enter a value: yes

aws_instance.myapp_ec2: Creating...

aws_instance.myapp_ec2: Still creating... [00m10s elapsed]

aws_instance.myapp_ec2: Creation complete after 14s [id=i-0ea4908d256b16c09]

Apply complete! Resources: 1 added, 0 changed, 0 destroyed.

Outputs:

```
aws_instance_public_ip = "158.252.83.160"
```

```
@Musfira-0514 →/workspaces/exam (main) $
```

```
• @Musfira-0514 →/workspaces/exam (main) $ terraform output
aws_instance_public_ip = "158.252.83.160"
```

```
@Musfira-0514 →/workspaces/exam (main) $
```

🔍 ⏪ ⏩ ⚙️

Your VPCs

VPCs

VPC encryption controls

Your VPCs (5) [Info](#)

Last updated less than a minute ago [Actions](#) [Create VPC](#)

Find VPCs by attribute or tag

<input type="checkbox"/>	Name	VPC ID	State	Encryption c...	Encryption control ...	Block Public...	IPv4 CIDR
<input type="checkbox"/>	dev-vpc	vpc-0b50742b0a8d05cf8	Available	-	-	Off	10.0.0.0/16
<input type="checkbox"/>	-	vpc-0692a0a9ca59e3193	Available	-	-	Off	172.31.0.0/16
<input type="checkbox"/>	dev-vpc	vpc-0bc47e04a8834bb17	Available	-	-	Off	10.0.0.0/16
<input type="checkbox"/>	dev-vpc	vpc-0e453e2e1ecbed7bf	Available	-	-	Off	10.0.0.0/16
<input type="checkbox"/>	dev-vpc	vpc-0a30e0d4f694f6...	Available	-	-	Off	10.0.0.0/16

Select a VPC above

Subnets (7) Info

Last updated less than a minute ago

Actions

Create subnet

Find subnets by attribute or tag

<input type="checkbox"/>	Name	Subnet ID	State	VPC	Block Public...	IPv4 CIDR	IPv6 C
<input type="checkbox"/>	-	subnet-010f87f7a71401e12	Available	vpc-0bc47e04a8834bb17 dev-...	Off	10.0.1.0/24	-
<input type="checkbox"/>	-	subnet-0c555e8a5e3f285c3	Available	vpc-0692a0a9ca59e3193	Off	172.31.0.0/20	-
<input type="checkbox"/>	-	subnet-0fcf420e09b0ac86a	Available	vpc-0692a0a9ca59e3193	Off	172.31.32.0/20	-
<input type="checkbox"/>	dev-subnet-1	subnet-0b08bdf6d9a79f8e6	Available	vpc-0042969d46f2df6cc dev-v...	Off	10.0.10.0/24	-
<input type="checkbox"/>	-	subnet-06bea409d1a53dd18	Available	vpc-0e453e2e1ecbed7bf dev-...	Off	10.0.1.0/24	-
<input type="checkbox"/>	dev-subnet-1	subnet-0d68902527918dc49	Available	vpc-0b50742b0a8d05cf8 dev-...	Off	10.0.10.0/24	-
<input type="checkbox"/>	-	subnet-02410ae646f6bbaae	Available	vpc-0692a0a9ca59e3193	Off	172.31.16.0/20	-

Internet gateways (5) Info

Actions

Create internet gateway

Find internet gateways by attribute or tag

<input type="checkbox"/>	Name	Internet gateway ID	State	VPC ID	Owner
<input type="checkbox"/>	-	igw-047f59f5c6e0752d6	Attached	vpc-0692a0a9ca59e3193	383704034224
<input type="checkbox"/>	-	igw-06416e4c485770205	Attached	vpc-0e453e2e1ecbed7bf dev-vpc	383704034224
<input type="checkbox"/>	-	igw-0773d7079f1688744	Attached	vpc-0bc47e04a8834bb17 dev-vpc	383704034224
<input type="checkbox"/>	dev-igw	igw-0arcc34e6f8b5ce49c	Attached	vpc-0b50742b0a8d05cf8 dev-vpc	383704034224

Route tables (7) Info

Last updated 1 minute ago

Actions

Create route table

Find route tables by attribute or tag

<input type="checkbox"/>	Name	Route table ID	Explicit subnet associ...	Edge associations	Main	VPC	Owner ID
<input type="checkbox"/>	-	rtb-0b83af2c02d11e053	-	-	Yes	vpc-0692a0a9ca59e3193	383704034224
<input type="checkbox"/>	-	rtb-0df312d7e961c1639	subnet-06bea409d1a53d...	-	No	vpc-0e453e2e1ecbed7bf dev-...	383704034224
<input type="checkbox"/>	-	rtb-0e4bc30979523131d	subnet-010f87f7a71401...	-	No	vpc-0bc47e04a8834bb17 dev-...	383704034224
<input type="checkbox"/>	-	rtb-00282394bb493688f	-	-	Yes	vpc-0bc47e04a8834bb17 dev-...	383704034224
<input type="checkbox"/>	-	rtb-026dda430362b8af0	-	-	Yes	vpc-0e453e2e1ecbed7bf dev-...	383704034224
<input type="checkbox"/>	dev-rt	rtb-0286032bc9ee5963c	-	-	Yes	vpc-0042969d46f2df6cc dev-y...	383704034224
<input type="checkbox"/>	dev-rt	rtb-0dbff1dd5a67a0cab	-	-	Yes	vpc-0b50742b0a8d05cf8 dev-...	383704034224

Select a route table

sg-051e9198fee5b0dbf - default

Actions

Details

Security group name
default

Owner
383704034224

Security group ID
sg-051e9198fee5b0dbf

Inbound rules count
3 Permission entries

Description
default VPC security group

Outbound rules count
1 Permission entry

VPC ID
vpc-0b50742b0a8d05cf8

Inbound rules

Outbound rules

Sharing

VPC associations

Tags

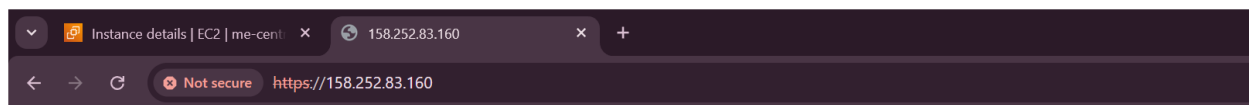
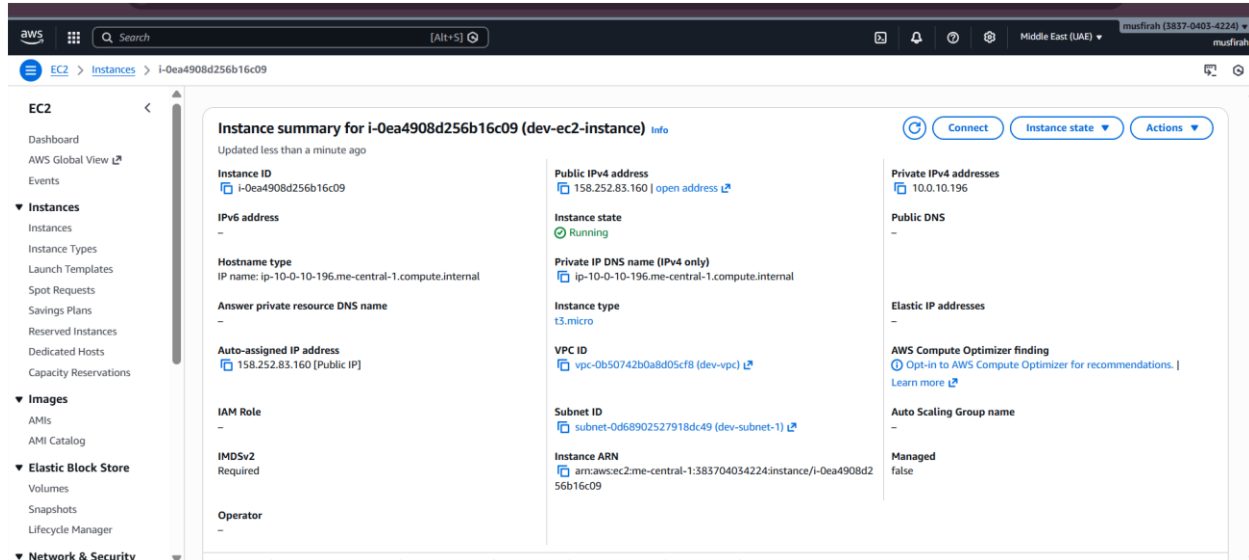
Inbound rules (3)

Manage tags

Edit inbound rules

Search

<input type="checkbox"/>	Name	Security group rule ID	IP version	Type	Protocol	Port range	Source
<input type="checkbox"/>	-	sgr-031ce9e403f41a4a4	IPv4	HTTP	TCP	80	0.0.0.0/0
<input type="checkbox"/>	-	sgr-0eaafb5cd5ba10875	IPv4	HTTPS	TCP	443	0.0.0.0/0
<input type="checkbox"/>	-	sgr-01ae09cec2efb9e55	IPv4	SSH	TCP	22	4.240.18.228/32



This is Musfira Farooq's Terraform environment.

Q3 – Ansible Playbook for EC2 Web Server Using Q2 Instance

```
● @Musfira-0514 → /workspaces/exam (main) $ mkdir ansible
● @Musfira-0514 → /workspaces/exam (main) $ cd ansible
● @Musfira-0514 → /workspaces/exam/ansible (main) $ touch hosts
● @Musfira-0514 → /workspaces/exam/ansible (main) $ nano hosts
● @Musfira-0514 → /workspaces/exam/ansible (main) $ cat hosts
[ec2]
158.252.83.160
[ec2:vars]
ansible_user=ec2-user
ansible_ssh_private_key_file=~/.ssh/id_ed25519
```

```
ansible_ssh_common_args= -o StrictHostKeyChecking=no
```

- @Musfira-0514 → /workspaces/exam/ansible (main) \$ touch ansible.cfg
- @Musfira-0514 → /workspaces/exam/ansible (main) \$ nano ansible.cfg
- @Musfira-0514 → /workspaces/exam/ansible (main) \$ cat ansible.cfg

```
[defaults]
host_key_checking = False
interpreter_python = /usr/bin/python3
inventory = ./hostscking=no
○ @Musfira-0514 → /workspaces/exam/ansible (main) $
```


- @Musfira-0514 → /workspaces/exam/ansible (main) \$ touch my-playbook.yml
- @Musfira-0514 → /workspaces/exam/ansible (main) \$ nano my-playbook.yml
- @Musfira-0514 → /workspaces/exam/ansible (main) \$ cat my-playbook.yml

```
---
- name: Configure EC2 web server using Ansible
  hosts: ec2
  become: true

  tasks:

    - name: Update all system packages
      yum:
        name: "*"
        state: latest

    - name: Stop nginx if installed
      service:
        name: nginx
        state: stopped
        enabled: false
        ignore_errors: true

    - name: Remove nginx if present
      yum:
        name: nginx
        state: absent
        ignore_errors: true

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

    - name: Start and enable httpd service
```

```
@Musfira-0514 → /workspaces/exam/ansible (main) $ cat my-playbook.yml
```

```
  name: nginx
  state: absent
  ignore_errors: true

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

- name: Start and enable httpd service
  service:
    name: httpd
    state: started
    enabled: true

- name: Get IMDSv2 token
  uri:
    url: http://169.254.169.254/latest/api/token
    method: PUT
    headers:
      X-aws-ec2-metadata-token-ttl-seconds: "21600"
    return_content: true
  register: imds_token
```

```

register: imas_token

- name: Get public IPv4 address
  uri:
    url: http://169.254.169.254/latest/meta-data/public-ipv4
    headers:
      X-aws-ec2-metadata-token: "{{ imds_token.content }}"
    return_content: true
  register: public_ip

- name: Get public hostname
  uri:
    url: http://169.254.169.254/latest/meta-data/public-hostname
    headers:
      X-aws-ec2-metadata-token: "{{ imds_token.content }}"
    return_content: true
  register: public_hostname

- name: Print public IP address
  debug:
    msg: "EC2 Public IP is {{ public_ip.content }}"

- name: Restart Apache HTTPD
  service:
    name: httpd
    state: restarted

```

@Musfira-0514 → /workspaces/exam/ansible (main) \$

```

@Musfira-0514 → /workspaces/exam/ansible (main) $ ansible-playbook -i hosts my-playbook.yml
TASK [Gathering Facts] *****
ok: [158.252.83.160]

TASK [Update all system packages] *****
ok: [158.252.83.160]

TASK [Stop nginx if installed] *****
changed: [158.252.83.160]

TASK [Remove nginx if present] *****
changed: [158.252.83.160]

TASK [Install Apache HTTPD] *****
changed: [158.252.83.160]

TASK [Start and enable httpd service] *****
changed: [158.252.83.160]

TASK [Get IMDSv2 token] *****
ok: [158.252.83.160]

TASK [Get public IPv4 address] *****
ok: [158.252.83.160]

TASK [Get public hostname] *****
ok: [158.252.83.160]

TASK [Print public IP address] *****
ok: [158.252.83.160] => {
  "msg": "EC2 Public IP is 158.252.83.160"
}

TASK [Restart Apache HTTPD] *****
changed: [158.252.83.160]

PLAY RECAP *****
158.252.83.160      : ok=11  changed=5  unreachable=0  failed=0  skipped=0  rescued=0  ignored=0

```

@Musfira-0514 → /workspaces/exam/ansible (main) \$

```
● @Musfira-0514 →/workspaces/exam/ansible (main) $ curl http://158.252.83.160
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01//EN" "http://www.w3.org/TR/html4/strict.dtd">
<html>
<head>
<title>It works! Apache httpd</title>
</head>
<body>
<p>It works!</p>
</body>
</html>
○ @Musfira-0514 →/workspaces/exam/ansible (main) $
```