

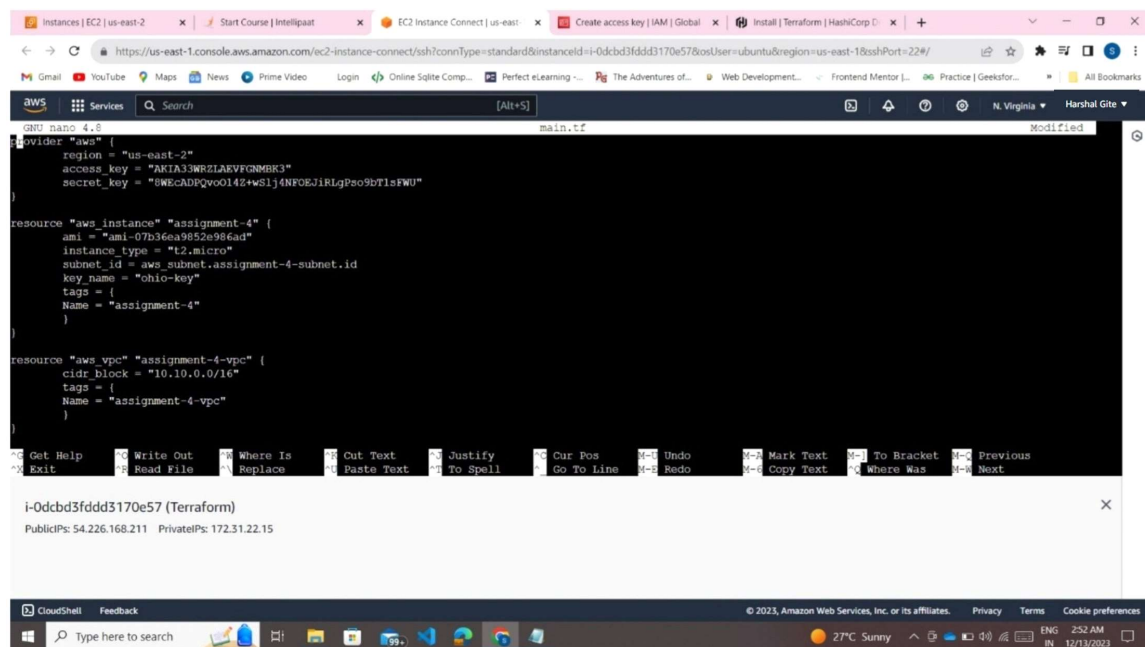
# Terraform Assignment-4

Tasks To Be Performed:

1. Destroy the previous deployments
2. Create a VPC with the required components using Terraform
3. Deploy an EC2 instance inside the VPC

Solution:

Steps:



The screenshot shows the AWS Management Console with a terminal window open. The terminal displays the Terraform configuration for an EC2 instance and a VPC. Below the configuration, the instance details are shown, including the public IP address (54.226.168.211) and private IP address (172.31.22.15).

```
provider "aws" {
  region = "us-east-2"
  access_key = "AKIA33WRZLAEVFGNMBK3"
  secret_key = "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"
}

resource "aws_instance" "assignment-4" {
  ami = "ami-07b36ea9852a986ad"
  instance_type = "t2.micro"
  subnet_id = aws_subnet.assignment-4-subnet.id
  key_name = "ohio-key"
  tags = {
    Name = "assignment-4"
  }
}

resource "aws_vpc" "assignment-4-vpc" {
  cidr_block = "10.10.0.0/16"
  tags = {
    Name = "assignment-4-vpc"
  }
}
```

i-0dcdb3fddd3170e57 (Terraform)  
PublicIPs: 54.226.168.211 PrivateIPs: 172.31.22.15

```
Instances | EC2 | us-east-2 x Start Course | Intellipaat x EC2 Instance Connect | us-east-2 x Create access key | IAM | Global x Install | Terraform | HashiCorp D x +
https://us-east-1.console.aws.amazon.com/ec2-instance-connect/ssh?connType=standard&instanceId=i-0dcbd3fddd3170e57&osUser=ubuntu&region=us-east-1&sshPort=22#/
Gmail YouTube Maps News Prime Video Login Online Sgite Comp... Perfect eLearning... The Adventures of... Web Development... Frontend Mentor... Practice | Geekstor... All Bookmarks
AWS Services Search [Alt+S]
ubuntu@ip-172-31-22-15:~$ sudo nano main.tf
ubuntu@ip-172-31-22-15:~$ terraform plan

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_instance.assignment-4 will be created
+ resource "aws_instance" "assignment-4" {
  + ami              = "ami-07b36ea9852e986ad"
  + arn              = (known after apply)
  + associate_public_ip_address = (known after apply)
  + availability_zone = (known after apply)
  + cpu_core_count   = (known after apply)
  + cpu_threads_per_core = (known after apply)
  + disable_api_stop  = (known after apply)
  + disable_api_termination = (known after apply)
  + ebs_optimized     = (known after apply)
  + get_password_data = false
  + host_id           = (known after apply)
  + host_resource_group_arn = (known after apply)
  + iam_instance_profile = (known after apply)
  + id                = (known after apply)
  + instance_initiated_shutdown_behavior = (known after apply)
  + instance_lifecycle = (known after apply)
}
```

i-0dcbd3fddd3170e57 (Terraform)  
PublicIPs: 54.226.168.211 PrivateIPs: 172.31.22.15

```
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Type here to search
Instances | EC2 | us-east-2 x Start Course | Intellipaat x EC2 Instance Connect | us-east-2 x Create access key | IAM | Global x Install | Terraform | HashiCorp D x +
https://us-east-1.console.aws.amazon.com/ec2-instance-connect/ssh?connType=standard&instanceId=i-0dcbd3fddd3170e57&osUser=ubuntu&region=us-east-1&sshPort=22#/
Gmail YouTube Maps News Prime Video Login Online Sgite Comp... Perfect eLearning... The Adventures of... Web Development... Frontend Mentor... Practice | Geekstor... All Bookmarks
AWS Services Search [Alt+S]
}
+ tags_all = {
  + "Name" = "assignment-4-vpc"
}
}
Plan: 3 to add, 0 to change, 0 to destroy.

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_vpc.assignment-4-vpc: Creating...
aws_vpc.assignment-4-vpc: Creation complete after 1s [id=vpc-022a8ad55f3c24487]
aws_subnet.assignment-4-subnet: Creating...
aws_subnet.assignment-4-subnet: Creation complete after 0s [id=subnet-09364484594620982]
aws_instance.assignment-4: Creating...
aws_instance.assignment-4: Still creating... [10s elapsed]
aws_instance.assignment-4: Still creating... [20s elapsed]
aws_instance.assignment-4: Still creating... [30s elapsed]
aws_instance.assignment-4: Creation complete after 32s [id=i-015b037c3d807df91]

Apply complete! Resources: 3 added, 0 changed, 0 destroyed.
ubuntu@ip-172-31-22-15:~$
```

i-0dcbd3fddd3170e57 (Terraform)  
PublicIPs: 54.226.168.211 PrivateIPs: 172.31.22.15

Instances | EC2 | us-east-2

Start Course | Intellipaat | EC2 Instance Connect | us-east-2 | Create access key | IAM | Global | Install | Terraform | HashiCorp |

https://us-east-2.console.aws.amazon.com/ec2/home?region=us-east-2#Instancescv=3&case=tagstrue%5Cclient:false%5Cclient:false

Services Search [Alt+S]

EC2 Dashboard  
EC2 Global View  
Events

Instances (2) info

Find Instance by attribute or tag (case-sensitive)

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IP
assignment-4	i-015b037c3d807df91	Running	t2.micro	Initializing	No alarms	us-east-2a	-
hello-ohio	i-046bba2b135428c3a	Terminated	t2.micro	-	No alarms	us-east-2c	-

Select an instance

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vpcs | VPC Console

Start Course | Intellipaat | EC2 Instance Connect | us-east-2 | Create access key | IAM | Global | Install | Terraform | HashiCorp |

https://us-east-2.console.aws.amazon.com/vpcconsole/home?region=us-east-2#vpcs

Services Search [Alt+S]

VPC dashboard  
EC2 Global View

Filter by VPC: Select a VPC

Virtual private cloud

Your VPCs

Subnets  
Route tables  
Internet gateways  
Egress-only internet gateways  
DHCP option sets  
Elastic IPs  
Managed prefix lists  
Endpoints  
Endpoint services  
NAT gateways  
Peering connections

Security  
Network ACLs

Your VPCs (2) info

Search

Name	VPC ID	State	IPv4 CIDR	IPv6 CIDR	DHCP
-	vpc-0bcfe635cbfee43fa	Available	172.31.0.0/16	-	dhcp
assignment-4-vpc	vpc-022a8ad5f3c24487	Available	10.10.0.0/16	-	dhcp

Select a VPC above

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subnets | VPC Console

Start Course | Intellipaat | EC2 Instance Connect | us-east-2 | Create access key | IAM | Global | Install | Terraform | HashiCorp |

https://us-east-2.console.aws.amazon.com/vpcconsole/home?region=us-east-2#subnets

Services Search [Alt+S]

VPC dashboard  
EC2 Global View  
Filter by VPC: Select a VPC

Virtual private cloud  
Your VPCs  
Subnets  
Route tables  
Internet gateways  
Egress-only internet gateways  
DHCP option sets  
Elastic IPs  
Managed prefix lists  
Endpoints  
Endpoint services  
NAT gateways  
Peering connections

Security  
Network ACLs

Subnets (4) Info

Find resources by attribute or tag

<input type="checkbox"/>	Name	Subnet ID	State	VPC	IPv4 CIDR
<input type="checkbox"/>	assignment-4-subnet	subnet-093644845946f0982	Available	vpc-022a8ad5f3c24487   assign...	10.10.0.0/18
<input type="checkbox"/>	-	subnet-085d1787bf4519b18	Available	vpc-0bcfe635cbfe43fa	172.31.16.0/20
<input type="checkbox"/>	-	subnet-08f192b67d6edecf7	Available	vpc-0bcfe635cbfe43fa	172.31.0.0/20
<input type="checkbox"/>	-	subnet-0d5c1b736c1bf0678	Available	vpc-0bcfe635cbfe43fa	172.31.32.0/20

Select a subnet

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