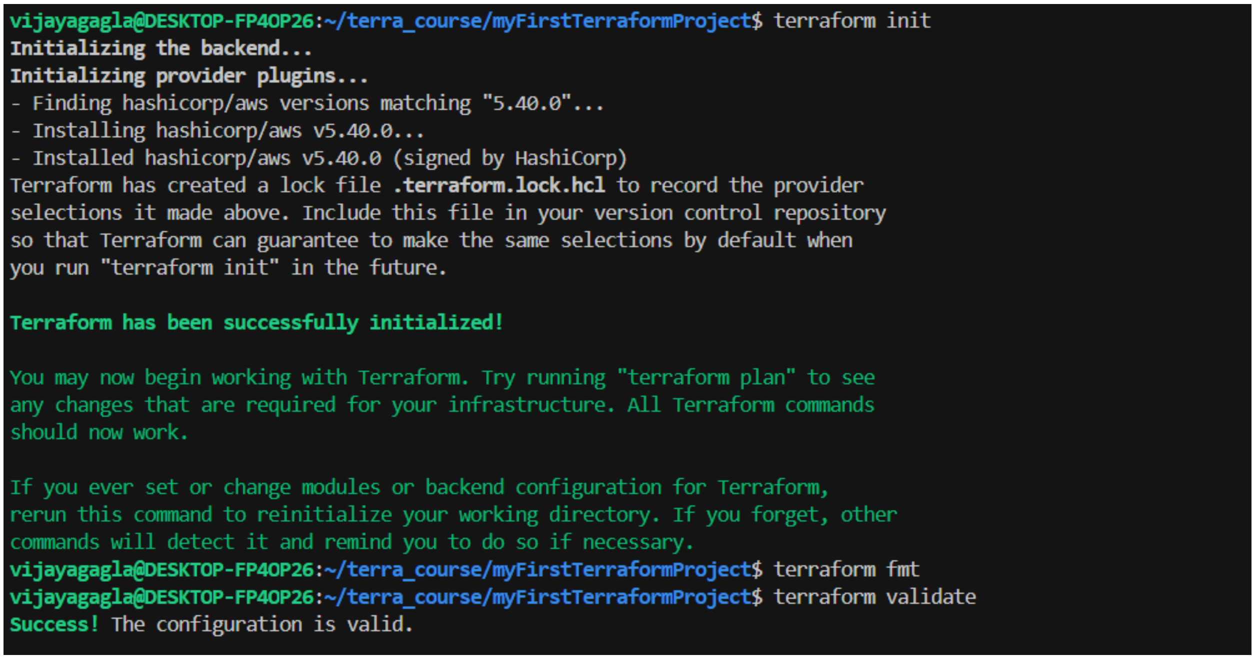
LAB - Your first Infrastructure in Terraform

Init



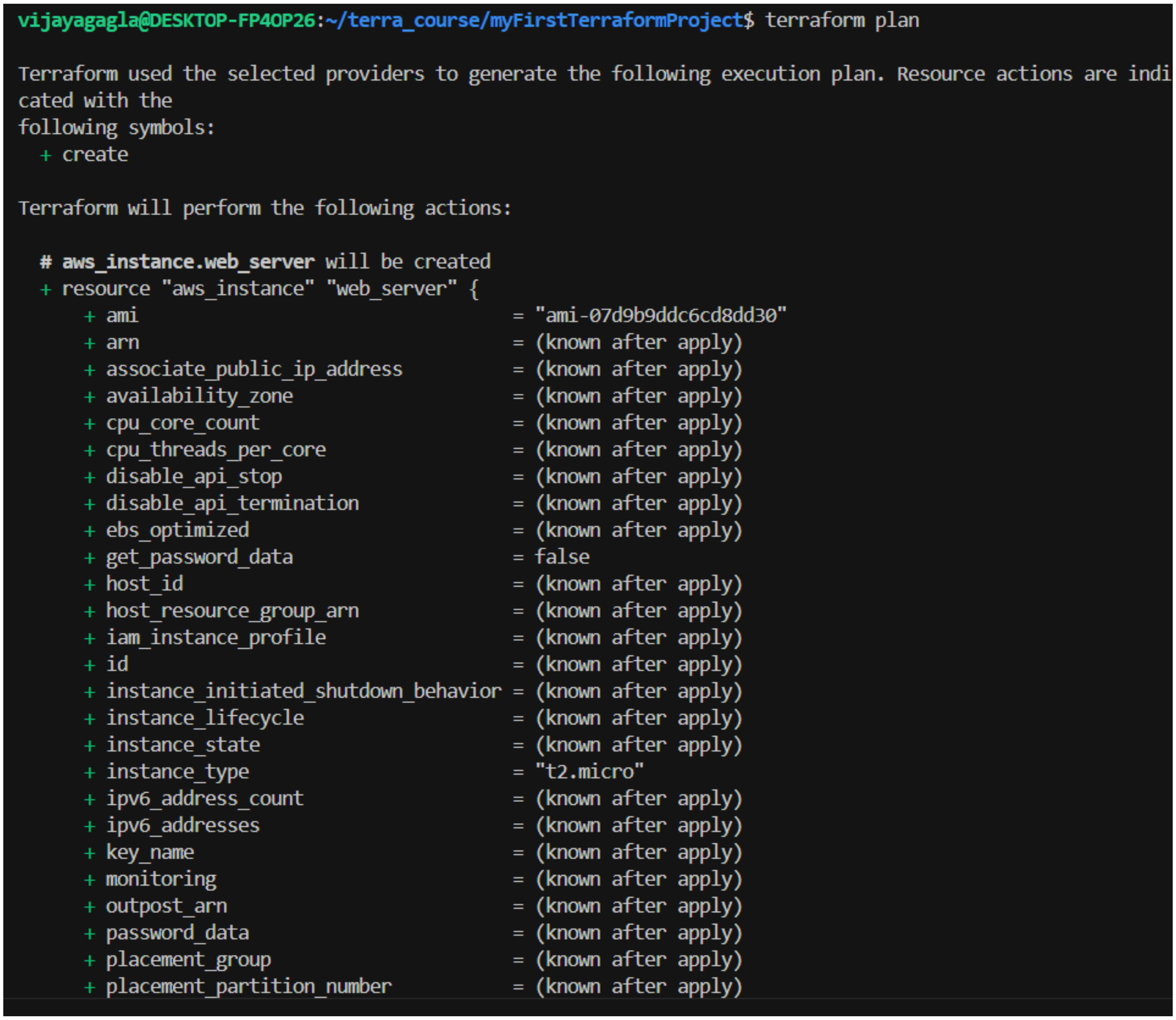
```
vijayagagla@DESKTOP-FP4OP26:~/terra_course/myFirstTerraformProject$ terraform init
Initializing the backend...
Initializing provider plugins...
- Finding hashicorp/aws versions matching "5.40.0"...
- Installing hashicorp/aws v5.40.0...
- Installed hashicorp/aws v5.40.0 (signed by HashiCorp)
Terraform 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.
vijayagagla@DESKTOP-FP4OP26:~/terra_course/myFirstTerraformProject$ terraform fmt
vijayagagla@DESKTOP-FP4OP26:~/terra_course/myFirstTerraformProject$ terraform validate
Success! The configuration is valid.
```

Plan



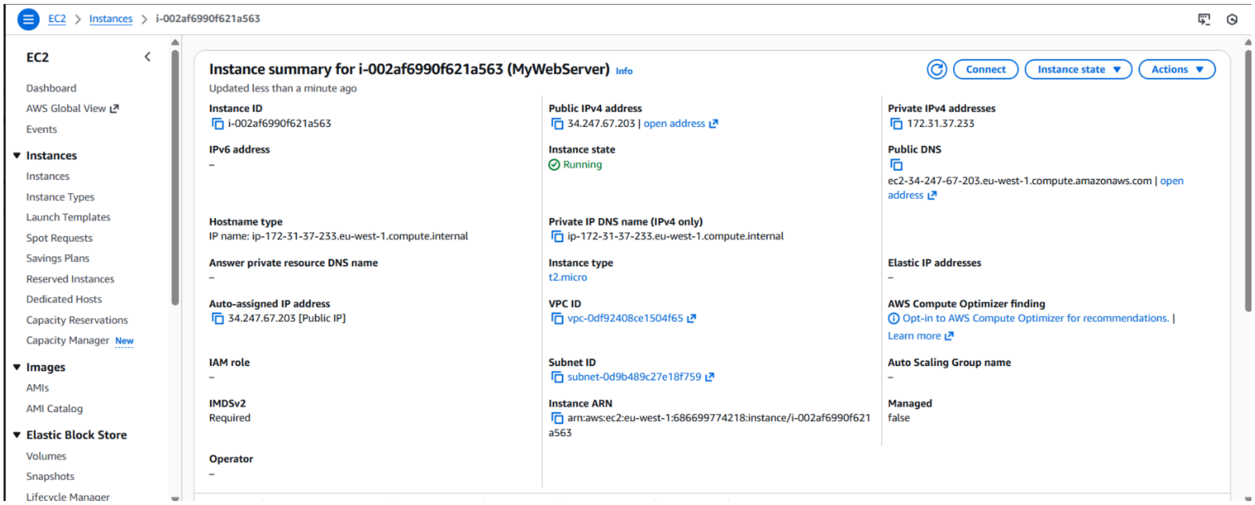
```
vijayagagla@DESKTOP-FP4OP26:~/terra_course/myFirstTerraformProject$ terraform plan

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

Terraform will perform the following actions:

  # aws_instance.web_server will be created
  + resource "aws_instance" "web_server" {
      + ami                                  = "ami-07d9b9ddc6cd8dd30"
      + 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)
      + instance_state                       = (known after apply)
      + instance_type                        = "t2.micro"
      + ipv6_address_count                   = (known after apply)
      + ipv6_addresses                       = (known after apply)
      + key_name                             = (known after apply)
      + monitoring                           = (known after apply)
      + outpost_arn                          = (known after apply)
      + password_data                        = (known after apply)
      + placement_group                      = (known after apply)
      + placement_partition_number           = (known after apply)
```

EC2 Instance in Console



Instance summary for i-002af6990f621a563 (MyWebServer) Info

Updated less than a minute ago

Instance ID
i-002af6990f621a563

IPv6 address
–

Hostname type
IP name: ip-172-31-37-233.eu-west-1.compute.internal

Answer private resource DNS name
–

Auto-assigned IP address
34.247.67.203 [Public IP]

IAM role
–

IMDSv2
Required

Operator
–

Public IPv4 address
34.247.67.203 | open address

Instance state
Running

Private IP DNS name (IPv4 only)
ip-172-31-37-233.eu-west-1.compute.internal

Instance type
t2.micro

VPC ID
vpc-0df92408ce1504f65

Subnet ID
subnet-0d9b489c27e18f759

Instance ARN
arn:aws:ec2:eu-west-1:686699774218:instance/i-002af6990f621a563

Private IPv4 addresses
172.31.37.233

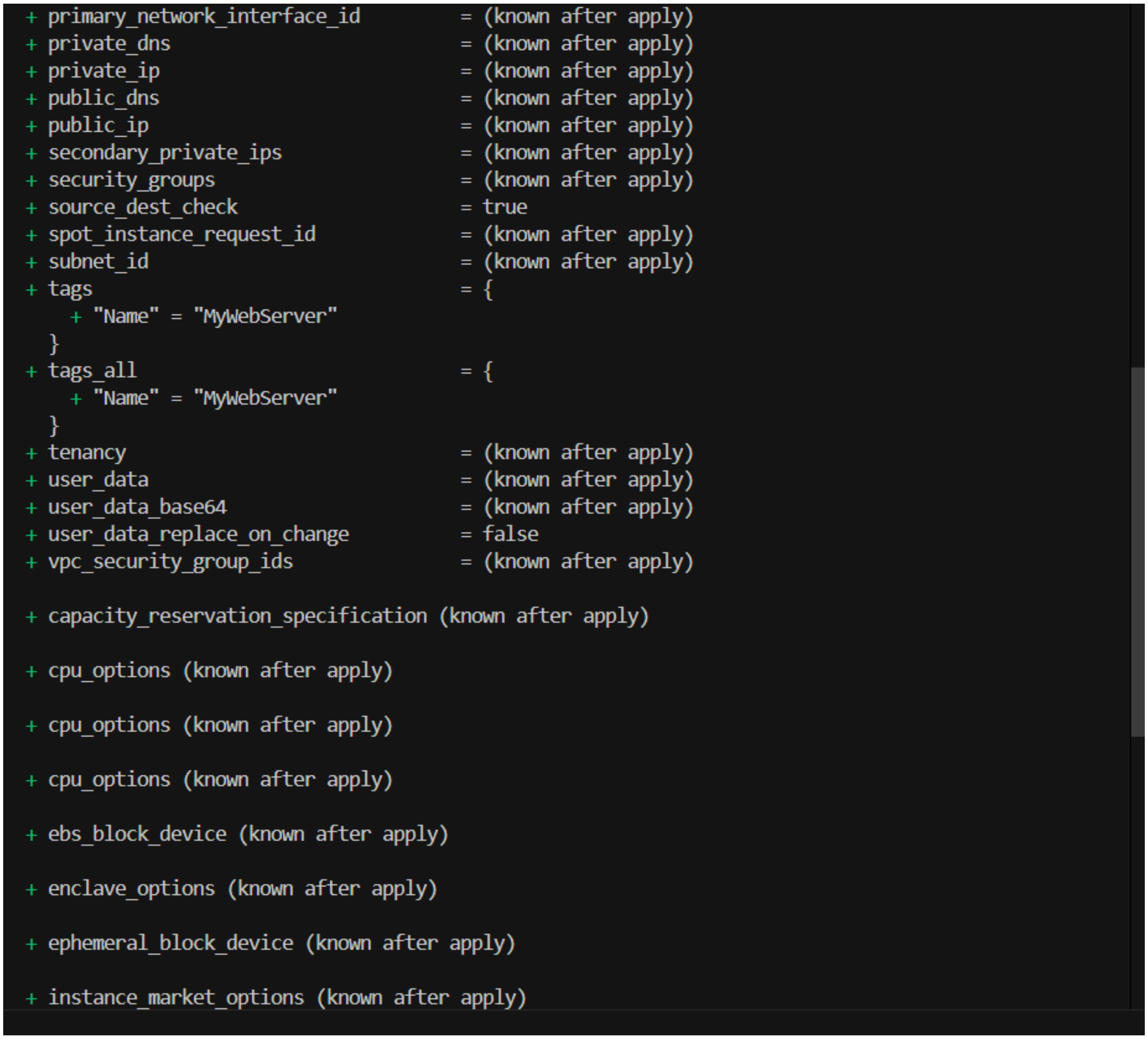
Public DNS
ec2-34-247-67-203.eu-west-1.compute.amazonaws.com | open address

Elastic IP addresses
–

AWS Compute Optimizer finding
Opt-in to AWS Compute Optimizer for recommendations. | Learn more

Auto Scaling Group name
–

Managed
false



```
+ primary_network_interface_id          = (known after apply)
+ private_dns                           = (known after apply)
+ private_ip                            = (known after apply)
+ public_dns                            = (known after apply)
+ public_ip                             = (known after apply)
+ secondary_private_ips                 = (known after apply)
+ security_groups                       = (known after apply)
+ source_dest_check                     = true
+ spot_instance_request_id              = (known after apply)
+ subnet_id                             = (known after apply)
+ tags                                  = {
    + "Name" = "MyWebServer"
  }
+ tags_all                              = {
    + "Name" = "MyWebServer"
  }
+ tenancy                               = (known after apply)
+ user_data                             = (known after apply)
+ user_data_base64                      = (known after apply)
+ user_data_replace_on_change           = false
+ vpc_security_group_ids                = (known after apply)

+ capacity_reservation_specification (known after apply)

+ cpu_options (known after apply)

+ cpu_options (known after apply)

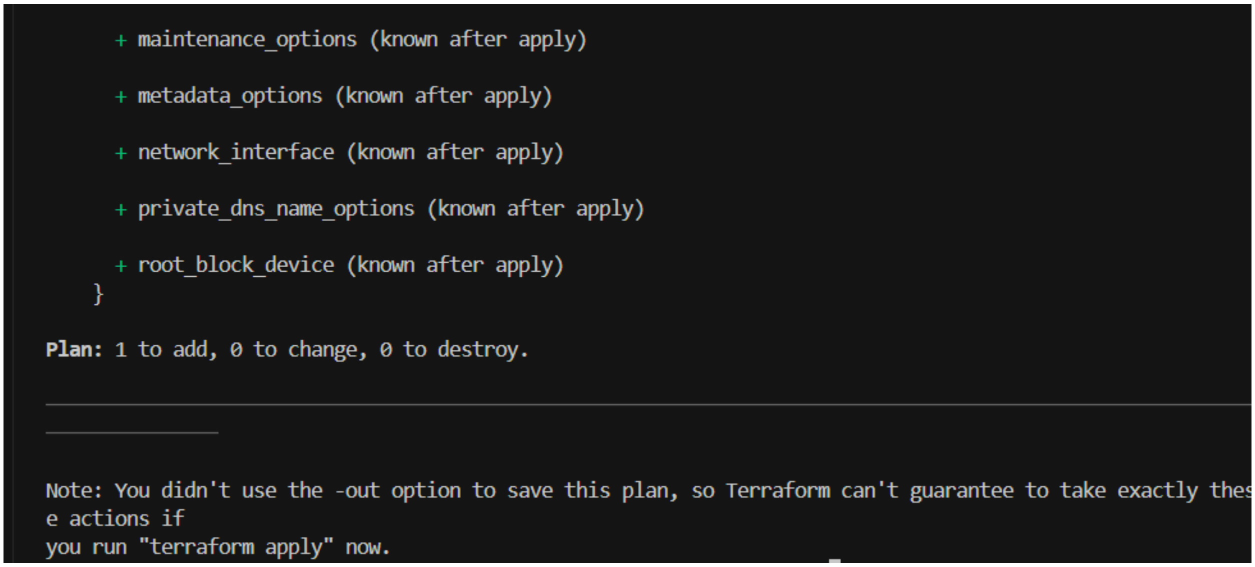
+ cpu_options (known after apply)

+ ebs_block_device (known after apply)

+ enclave_options (known after apply)

+ ephemeral_block_device (known after apply)

+ instance_market_options (known after apply)
```



```
      + maintenance_options (known after apply)

      + metadata_options (known after apply)

      + network_interface (known after apply)

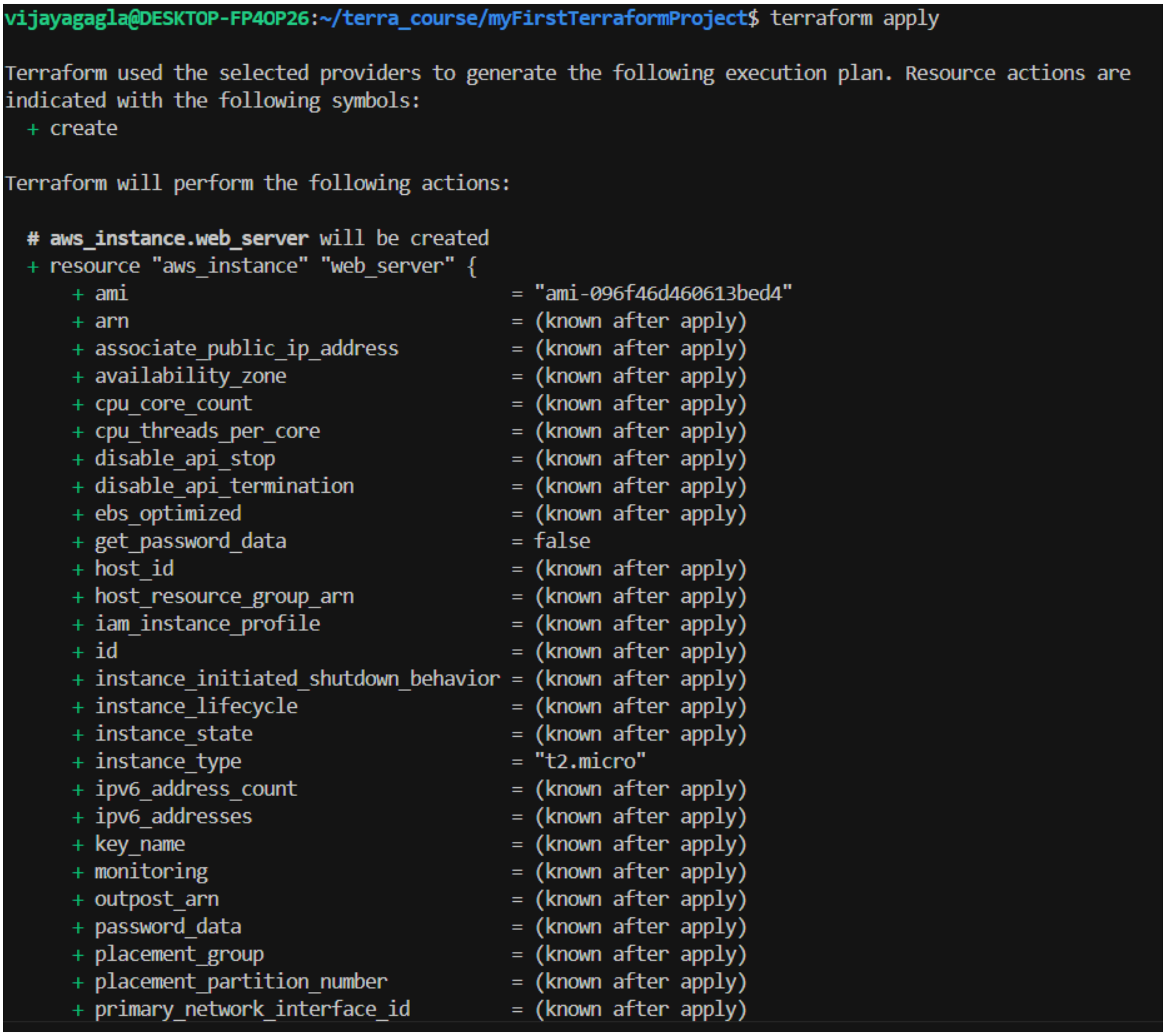
      + private_dns_name_options (known after apply)

      + root_block_device (known after apply)
    }

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


Note: You didn't use the -out option to save this plan, so Terraform can't guarantee to take exactly thes
e actions if
you run "terraform apply" now.
```

Apply

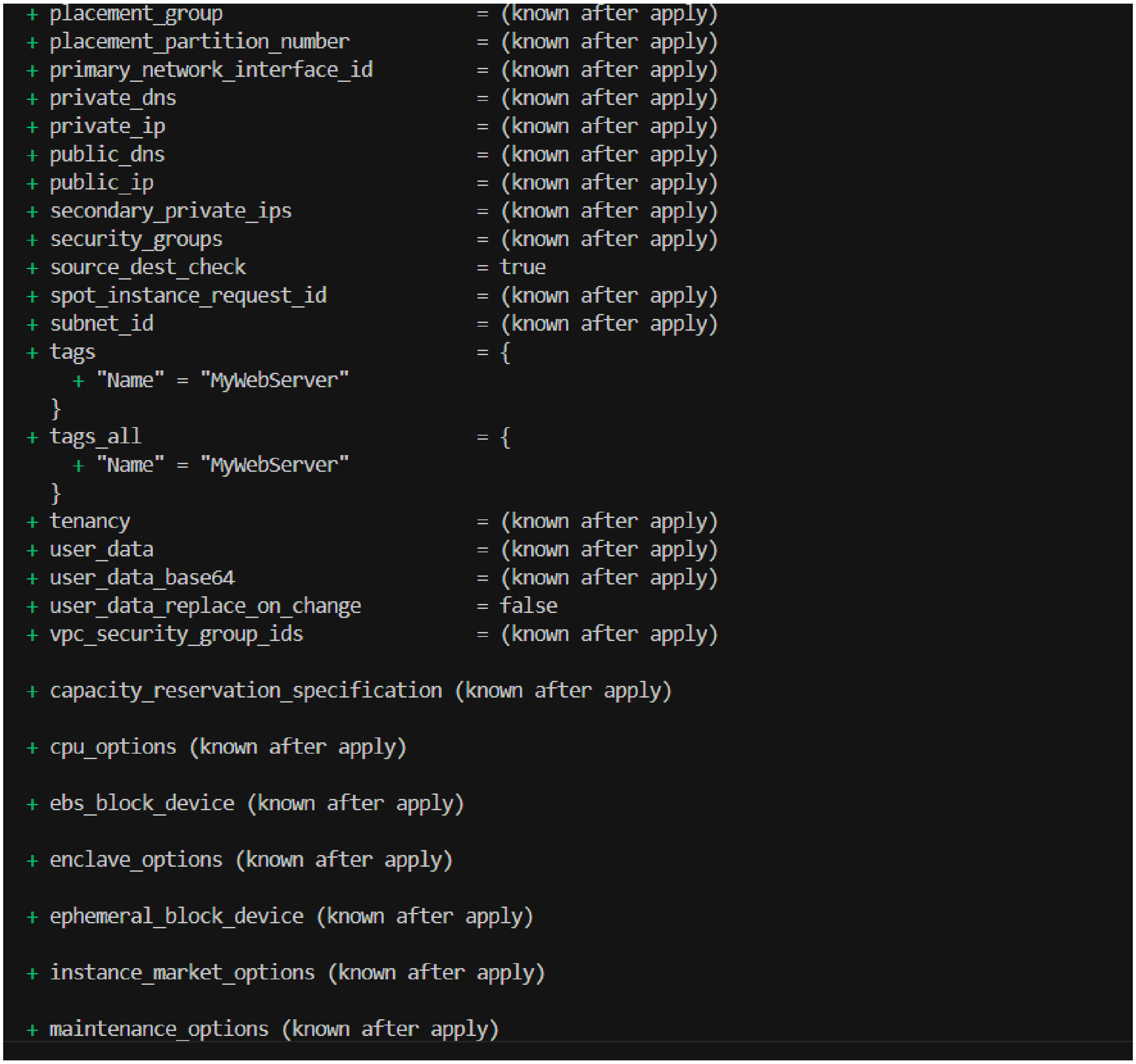


```
vijayagagla@DESKTOP-FP4OP26:~/terra_course/myFirstTerraformProject$ terraform apply

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.web_server will be created
  + resource "aws_instance" "web_server" {
      + ami                                  = "ami-096f46d460613bed4"
      + 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)
      + instance_state                       = (known after apply)
      + instance_type                        = "t2.micro"
      + ipv6_address_count                   = (known after apply)
      + ipv6_addresses                       = (known after apply)
      + key_name                             = (known after apply)
      + monitoring                           = (known after apply)
      + outpost_arn                          = (known after apply)
      + password_data                        = (known after apply)
      + placement_group                      = (known after apply)
      + placement_partition_number           = (known after apply)
      + primary_network_interface_id         = (known after apply)
```



```
+ placement_group                      = (known after apply)
+ placement_partition_number           = (known after apply)
+ primary_network_interface_id         = (known after apply)
+ private_dns                          = (known after apply)
+ private_ip                           = (known after apply)
+ public_dns                           = (known after apply)
+ public_ip                            = (known after apply)
+ secondary_private_ips                = (known after apply)
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+ capacity_reservation_specification (known after apply)

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+ ephemeral_block_device (known after apply)

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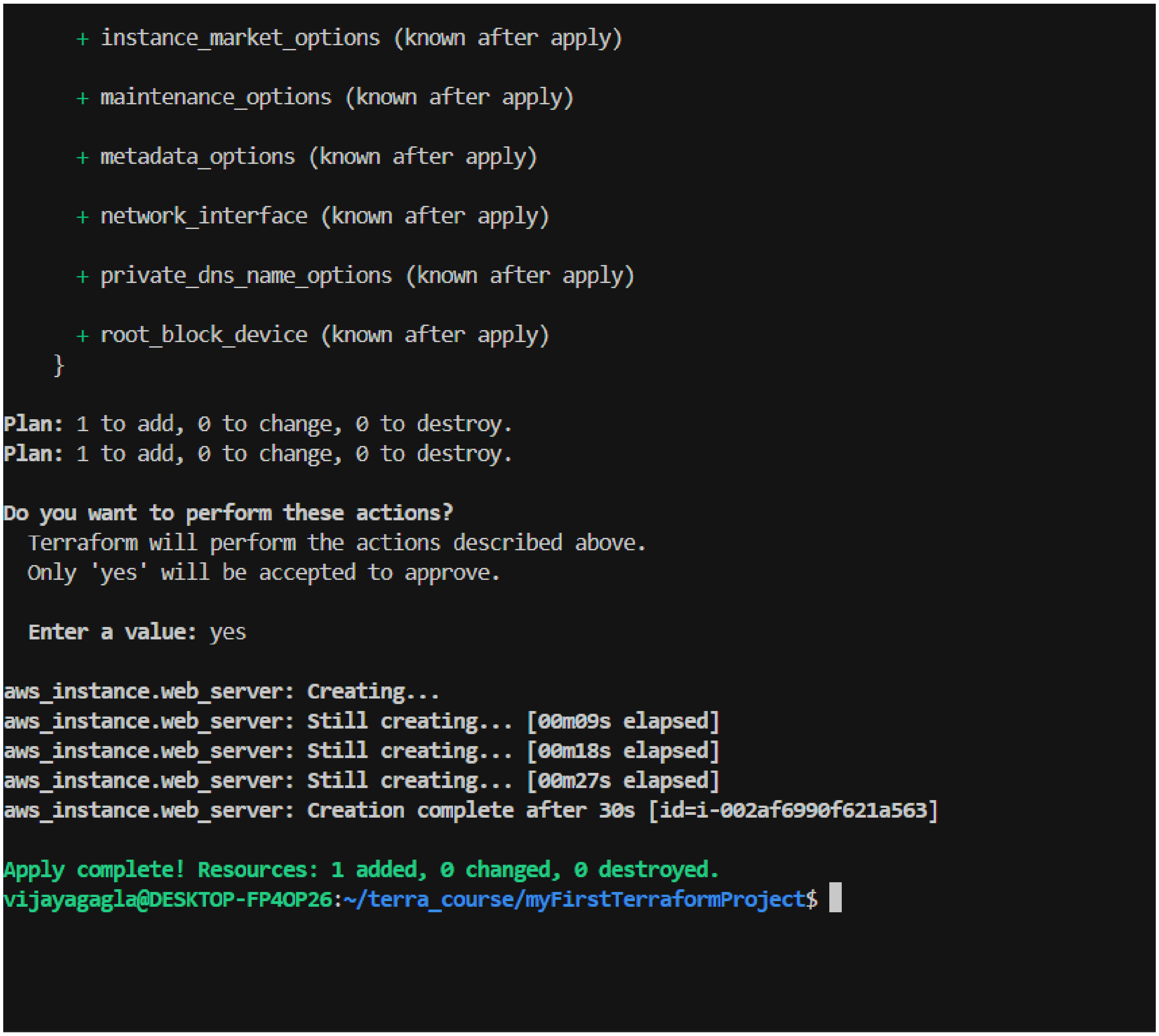


```
      + instance_market_options (known after apply)

      + maintenance_options (known after apply)

      + metadata_options (known after apply)

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

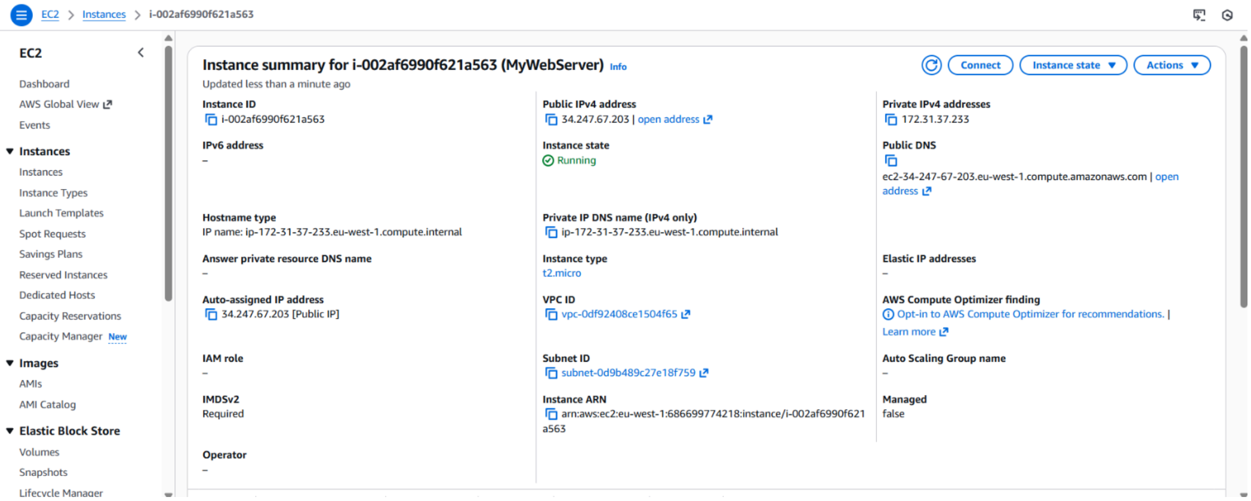
Do you want to perform these actions?
  Terraform will perform the actions described above.
  Only 'yes' will be accepted to approve.

  Enter a value: yes

aws_instance.web_server: Creating...
aws_instance.web_server: Still creating... [00m09s elapsed]
aws_instance.web_server: Still creating... [00m18s elapsed]
aws_instance.web_server: Still creating... [00m27s elapsed]
aws_instance.web_server: Creation complete after 30s [id=i-002af6990f621a563]

Apply complete! Resources: 1 added, 0 changed, 0 destroyed.
vijayagagla@DESKTOP-FP4OP26:~/terra_course/myFirstTerraformProject$
```

EC2 Instance in the Console



Instance summary for i-002af6990f621a563 (MyWebServer)

Updated less than a minute ago

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i-002af6990f621a563

IPv6 address
–

Hostname type
IP name: ip-172-31-37-233.eu-west-1.compute.internal

Answer private resource DNS name
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Auto-assigned IP address
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IAM role
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IMDSv2
Required

Operator
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Public IPv4 address
34.247.67.203 | open address

Instance state
Running

Private IP DNS name (IPv4 only)
ip-172-31-37-233.eu-west-1.compute.internal

Instance type
t2.micro

VPC ID
vpc-0df92408ce1504f65

Subnet ID
subnet-0d9b489c27e18f759

Instance ARN
arn:aws:ec2:eu-west-1:686699774218:instance/i-002af6990f621a563

Private IPv4 addresses
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Public DNS
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Auto Scaling Group name
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