Terraform lab 2

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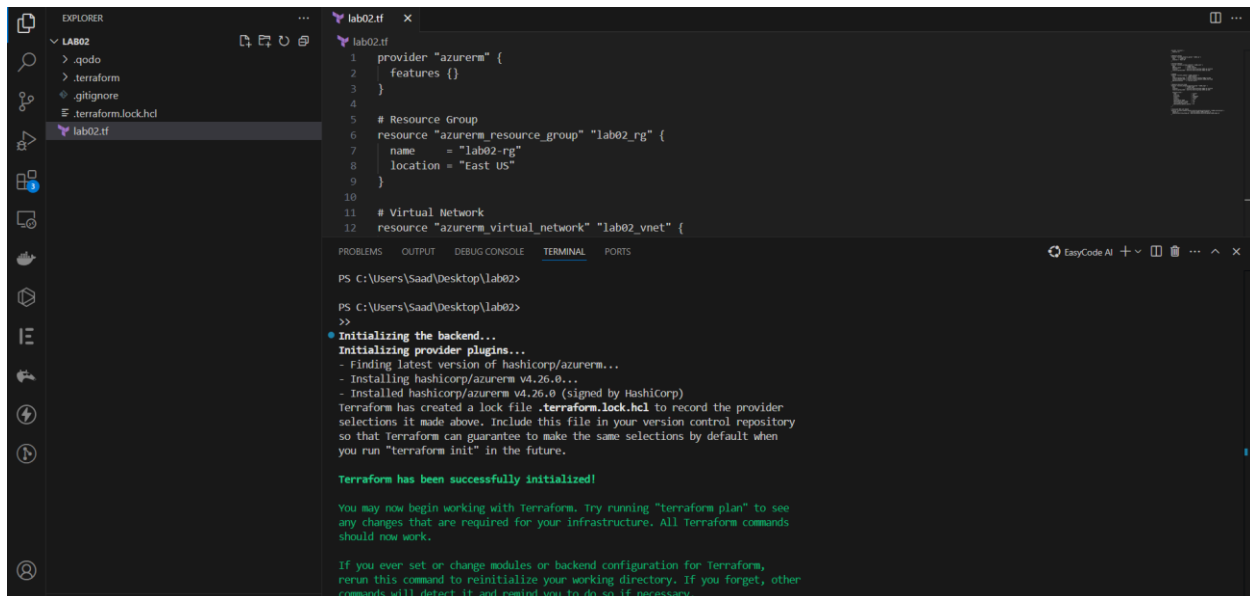# DEVOPS

SZABIST KARACHI

PART 2

```
lab02.tf
C: > Users > Saad > Desktop > lab02 >  lab02.tf
 1  terraform {
 2    required_providers {
 3      azurerm = {
 4        source  = "hashicorp/azurerm"
 5        version = ">= 3.0.0"
 6      }
 7    }
 8
 9    required_version = ">= 1.0.0"
10  }
11
12  provider "azurerm" {
13    features {}
14    subscription_id = "bfbe3041-7fa8-4038-8890-37ee17f2c645"
15  }
16
17  resource "azurerm_resource_group" "lab02_rg" {
18    name     = "lab02-rg"
19    location = "East US"
20  }
21
22  resource "azurerm_virtual_network" "lab02_vnet" {
23    name                = "lab02-vnet"
24    address_space       = ["10.0.0.0/16"]
25    location            = azurerm_resource_group.lab02_rg.location
26    resource_group_name = azurerm_resource_group.lab02_rg.name
27  }
28
29  resource "azurerm_subnet" "lab02_subnet1" {
30    name                = "lab02-subnet1"
31    resource_group_name = azurerm_resource_group.lab02_rg.name
32    virtual_network_name = azurerm_virtual_network.lab02_vnet.name
33    address_prefixes    = ["10.0.1.0/24"]
34  }
35
36  resource "azurerm_network_security_group" "lab02_nsg1" {
37    name                = "lab02-nsg1"
38    location            = azurerm_resource_group.lab02_rg.location
39    resource_group_name = azurerm_resource_group.lab02_rg.name
40
41    security_rule {
42      name                   = "rule1"
43      priority               = 100
44      direction              = "Inbound"
45      access                 = "Allow"
46      protocol               = "Tcp"
```

```
lab02.tf
C: > Users > Saad > Desktop > lab02 >  lab02.tf
15  }
16
17  resource "azurerm_resource_group" "lab02_rg" {
18    name     = "lab02-rg"
19    location = "East US"
20  }
21
22  resource "azurerm_virtual_network" "lab02_vnet" {
23    name                = "lab02-vnet"
24    address_space       = ["10.0.0.0/16"]
25    location            = azurerm_resource_group.lab02_rg.location
26    resource_group_name = azurerm_resource_group.lab02_rg.name
27  }
28
29  resource "azurerm_subnet" "lab02_subnet1" {
30    name                = "lab02-subnet1"
31    resource_group_name = azurerm_resource_group.lab02_rg.name
32    virtual_network_name = azurerm_virtual_network.lab02_vnet.name
33    address_prefixes    = ["10.0.1.0/24"]
34  }
35
36  resource "azurerm_network_security_group" "lab02_nsg1" {
37    name                = "lab02-nsg1"
38    location            = azurerm_resource_group.lab02_rg.location
39    resource_group_name = azurerm_resource_group.lab02_rg.name
40
41    security_rule {
42      name                   = "rule1"
43      priority               = 100
44      direction              = "Inbound"
45      access                 = "Allow"
46      protocol               = "Tcp"
47      source_port_range      = "*"
48      destination_port_range = "22"
49      source_address_prefix  = "*"
50      destination_address_prefix = "*"
51    }
52  }
53
54  resource "azurerm_subnet_network_security_group_association" "lab02_assoc" {
55    subnet_id                 = azurerm_subnet.lab02_subnet1.id
56    network_security_group_id = azurerm_network_security_group.lab02_nsg1.id
57  }
58
```

PART 3


```
 1   provider "azurerm" {
 2     features {}
 3   }
 4
 5   # Resource Group
 6   resource "azurerm_resource_group" "lab02_rg" {
 7     name     = "lab02-rg"
 8     location = "East US"
 9   }
10
11   # Virtual Network
12   resource "azurerm_virtual_network" "lab02_vnet" {
```

PS C:\Users\Saad\Desktop\lab02>

PS C:\Users\Saad\Desktop\lab02>
>>
Initializing the backend...
Initializing provider plugins...
- Finding latest version of hashicorp/azurerm...
- Installing hashicorp/azurerm v4.26.0...
- Installed hashicorp/azurerm v4.26.0 (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.

```
C:\Users\Saad\Desktop\lab02>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:

  # azurerm_network_security_group.lab02_nsg1 will be created
  + resource "azurerm_network_security_group" "lab02_nsg1" {
      + id                  = (known after apply)
      + location            = "eastus"
      + name                = "lab02-nsg1"
      + resource_group_name = "lab02-rg"
      + security_rule       = [
          + {
              + access                                     = "Allow"
              + destination_address_prefix                 = "*"
              + destination_address_prefixes               = []
              + destination_application_security_group_ids = []
              + destination_port_range                     = "22"
              + destination_port_ranges                    = []
              + direction                                  = "Inbound"
              + name                                       = "rule1"
              + priority                                   = 100
              + protocol                                   = "Tcp"
              + source_address_prefix                      = "*"
              + source_address_prefixes                    = []
              + source_application_security_group_ids      = []
              + source_port_range                          = "*"
              + source_port_ranges                         = []
                # (1 unchanged attribute hidden)
            },
        ]
    }

  # azurerm_resource_group.lab02_rg will be created
  + resource "azurerm_resource_group" "lab02_rg" {
      + id       = (known after apply)
      + location = "eastus"
      + name     = "lab02-rg"
    }

  # azurerm_subnet.lab02_subnet1 will be created
  + resource "azurerm_subnet" "lab02_subnet1" {
      + address_prefixes                = [
          + "10.0.1.0/24",
        ]
      + default_outbound_access_enabled = true
      + id                              = (known after apply)
      + name                            = "lab02-subnet1"
```

```
                ]
      + default_outbound_access_enabled          = true
      + id                                        = (known after apply)
      + name                                      = "lab02-subnet1"
      + private_endpoint_network_policies         = "Disabled"
      + private_link_service_network_policies_enabled = true
      + resource_group_name                       = "lab02-rg"
      + virtual_network_name                      = "lab02-vnet"
    }

  # azurerm_subnet_network_security_group_association.lab02_assoc will be created
  + resource "azurerm_subnet_network_security_group_association" "lab02_assoc" {
      + id                        = (known after apply)
      + network_security_group_id = (known after apply)
      + subnet_id                 = (known after apply)
    }

  # azurerm_virtual_network.lab02_vnet will be created
  + resource "azurerm_virtual_network" "lab02_vnet" {
      + address_space            = [
          + "10.0.0.0/16",
        ]
      + dns_servers              = (known after apply)
      + guid                     = (known after apply)
      + id                       = (known after apply)
      + location                 = "eastus"
      + name                     = "lab02-vnet"
      + private_endpoint_vnet_policies = "Disabled"
      + resource_group_name      = "lab02-rg"
      + subnet                   = (known after apply)
    }

Plan: 5 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

azurerm_resource_group.lab02_rg: Creating...
azurerm_resource_group.lab02_rg: Still creating... [10s elapsed]
azurerm_resource_group.lab02_rg: Creation complete after 12s [id=/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg]
azurerm_virtual_network.lab02_vnet: Creating...
azurerm_network_security_group.lab02_nsg1: Creating...
azurerm_network_security_group.lab02_nsg1: Creation complete after 7s [id=/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/networkSecurityGroups/lab02-nsg1]
azurerm_virtual_network.lab02_vnet: Still creating... [10s elapsed]
azurerm_virtual_network.lab02_vnet: Creation complete after 11s [id=/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-vnet]
azurerm_subnet.lab02_subnet1: Creating...
azurerm_subnet.lab02_subnet1: Creation complete after 10s [id=/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-vnet/subnets/lab02-subnet1]
azurerm_subnet_network_security_group_association.lab02_assoc: Creating...
azurerm_subnet_network_security_group_association.lab02_assoc: Creation complete after 10s [id=/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-vnet/subnets/lab02-subnet1]

Apply complete! Resources: 5 added, 0 changed, 0 destroyed.

C:\Users\Saad\Desktop\lab02>
```

```
C:\Users\Saad\Desktop\lab02>type terraform.tfstate
{
  "version": 4,
  "terraform_version": "1.11.4",
  "serial": 6,
  "lineage": "b455f0c3-9e42-2762-aa4e-7dedd783bb6e",
  "outputs": {},
  "resources": [
    {
      "mode": "managed",
      "type": "azurerm_network_security_group",
      "name": "lab02_nsg1",
      "provider": "provider[\"registry.terraform.io/hashicorp/azurerm\"]",
      "instances": [
        {
          "schema_version": 0,
          "attributes": {
            "id": "/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/networkSecurityGroups/lab02-nsg1",
            "location": "eastus",
            "name": "lab02-nsg1",
            "resource_group_name": "lab02-rg",
            "security_rule": [
              {
                "access": "Allow",
                "description": "",
                "destination_address_prefix": "*",
                "destination_address_prefixes": [],
                "destination_application_security_group_ids": [],
                "destination_port_range": "22",
                "destination_port_ranges": [],
                "direction": "Inbound",
                "name": "rule1",
                "priority": 100,
                "protocol": "Tcp",
                "source_address_prefix": "*",
                "source_address_prefixes": [],
                "source_application_security_group_ids": [],
                "source_port_range": "*",
                "source_port_ranges": []
              }
            ],
            "tags": null,
            "timeouts": null
          },
          "sensitive_attributes": [],
          "private": "eyJlMmJmYjczMC1lY2FhLTExZTYtOGY4OC0zNDM2M2JjN2M0YzAiOnsiY3JlYXRlIjoxODAwMDAwMDAwLCJkZWxldGUiOjE4MDAwMDAwMDAsInJlYWQiOjMwMDAwMDAwMCwidXBkYXRlIjoxODAwMDAwMDAwfX0=",
          "dependencies": [
            "azurerm_resource_group.lab02_rg"
          ]
        }
      ]
    },
    {
      "mode": "managed",
      "type": "azurerm_resource_group",
      "name": "lab02_rg",
      "provider": "provider[\"registry.terraform.io/hashicorp/azurerm\"]",
```

```
      "type": "azurerm_resource_group",
      "name": "lab02_rg",
      "provider": "provider[\"registry.terraform.io/hashicorp/azurerm\"]",
      "instances": [
        {
          "schema_version": 0,
          "attributes": {
            "id": "/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg",
            "location": "eastus",
            "managed_by": "",
            "name": "lab02-rg",
            "tags": null,
            "timeouts": null
          },
          "sensitive_attributes": [],
          "private": "eyJlMmJmYjczMClY2FhLTExZTYtOGY4OC0zNDM2M2JjN2M0YzAiOnsiY3JlYXRlIjo1NDAwMDAwMDAwMDAwLCJkZWxldGUiOjU0MDAwMDAwMDAwMDAsInJlYWQiOjMwMDAwMDAwMDAwMCwidXBkYXRlIjo1NDAwMDAwMDAwMDAwfX0="
        }
      ]
    },
    {
      "mode": "managed",
      "type": "azurerm_subnet",
      "name": "lab02_subnet1",
      "provider": "provider[\"registry.terraform.io/hashicorp/azurerm\"]",
      "instances": [
        {
          "schema_version": 0,
          "attributes": {
            "address_prefixes": [
              "10.0.1.0/24"
            ],
            "default_outbound_access_enabled": true,
            "delegation": [],
            "id": "/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-vnet/subnets/lab02-subnet1",
            "name": "lab02-subnet1",
            "private_endpoint_network_policies": "Disabled",
            "private_link_service_network_policies_enabled": true,
            "resource_group_name": "lab02-rg",
            "service_endpoint_policy_ids": null,
            "service_endpoints": null,
            "timeouts": null,
            "virtual_network_name": "lab02-vnet"
          },
          "sensitive_attributes": [],
          "private": "eyJlMmJmYjczMClY2FhLTExZTYtOGY4OC0zNDM2M2JjN2M0YzAiOnsiY3JlYXRlIjoxODAwMDAwMDAwMDAwLCJkZWxldGUiOjE4MDAwMDAwMDAwMDAsInJlYWQiOjMwMDAwMDAwMDAwMCwidXBkYXRlIjoxODAwMDAwMDAwMDAwfX0=",
          "dependencies": [
            "azurerm_resource_group.lab02_rg",
            "azurerm_virtual_network.lab02_vnet"
          ]
        }
      ]
    },
    {
      "mode": "managed",
      "type": "azurerm_subnet_network_security_group_association",
      "name": "lab02_assoc",
      "provider": "provider[\"registry.terraform.io/hashicorp/azurerm\"]",
      "instances": [
        {
          "schema_version": 0,
```
```
        {
          "schema_version": 0,
          "attributes": {
            "id": "/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-vnet/subnets/lab02-subnet1",
            "network_security_group_id": "/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/networkSecurityGroups/lab02-nsg1",
            "subnet_id": "/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-vnet/subnets/lab02-subnet1",
            "timeouts": null
          },
          "sensitive_attributes": [],
          "private": "eyJlMmJmYjczMClY2FhLTExZTYtOGY4OC0zNDM2M2JjN2M0YzAiOnsiY3JlYXRlIjoxODAwMDAwMDAwMDAwLCJkZWxldGUiOjE4MDAwMDAwMDAwMDAsInJlYWQiOjMwMDAwMDAwMDAwMDAwMH19",
          "dependencies": [
            "azurerm_network_security_group.lab02_nsg1",
            "azurerm_resource_group.lab02_rg",
            "azurerm_subnet.lab02_subnet1",
            "azurerm_virtual_network.lab02_vnet"
          ]
        }
      ]
    },
    {
      "mode": "managed",
      "type": "azurerm_virtual_network",
      "name": "lab02_vnet",
      "provider": "provider[\"registry.terraform.io/hashicorp/azurerm\"]",
      "instances": [
        {
          "schema_version": 0,
          "attributes": {
            "address_space": [
              "10.0.0.0/16"
            ],
            "bgp_community": "",
            "ddos_protection_plan": [],
            "dns_servers": [],
            "edge_zone": "",
            "encryption": [],
            "flow_timeout_in_minutes": 0,
            "guid": "206a5517-a602-4dab-891e-f64740cfc237",
            "id": "/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-vnet",
            "location": "eastus",
            "name": "lab02-vnet",
            "private_endpoint_vnet_policies": "Disabled",
            "resource_group_name": "lab02-rg",
            "subnet": [],
            "tags": null,
            "timeouts": null
          },
          "sensitive_attributes": [],
          "private": "eyJlMmJmYjczMClY2FhLTExZTYtOGY4OC0zNDM2M2JjN2M0YzAiOnsiY3JlYXRlIjoxODAwMDAwMDAwMDAwLCJkZWxldGUiOjE4MDAwMDAwMDAwMDAsInJlYWQiOjMwMDAwMDAwMDAwMCwidXBkYXRlIjoxODAwMDAwMDAwMDAwfX0=",
          "dependencies": [
            "azurerm_resource_group.lab02_rg"
          ]
        }
      ]
    }
  ],
  "check_results": null
}

C:\Users\Saad\Desktop\lab02>
```

PART 4

```
C:\Users\Saad\Desktop\lab02>terraform validate
Success! The configuration is valid.


C:\Users\Saad\Desktop\lab02>
```

PART 5

```
C:\Users\Saad\Desktop\lab02>terraform plan
azurerm_resource_group.lab02_rg: Refreshing state... [id=/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg]
azurerm_virtual_network.lab02_vnet: Refreshing state... [id=/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-vn
et]
azurerm_network_security_group.lab02_nsg1: Refreshing state... [id=/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/networkSecurityGr
oups/lab02-nsg1]
azurerm_subnet.lab02_subnet1: Refreshing state... [id=/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-vnet/sub
nets/lab02-subnet1]
azurerm_subnet_network_security_group_association.lab02_assoc: Refreshing state... [id=/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Netwo
rk/virtualNetworks/lab02-vnet/subnets/lab02-subnet1]

No changes. Your infrastructure matches the configuration.

Terraform has compared your real infrastructure against your configuration and found no differences, so no changes are needed.

C:\Users\Saad\Desktop\lab02>
```

PART 6

```
C:\Users\Saad\Desktop\lab02>terraform apply
azurerm_resource_group.lab02_rg: Refreshing state... [id=/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg]
azurerm_virtual_network.lab02_vnet: Refreshing state... [id=/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-vn
et]
azurerm_network_security_group.lab02_nsg1: Refreshing state... [id=/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/networkSecurityGr
oups/lab02-nsg1]
azurerm_subnet.lab02_subnet1: Refreshing state... [id=/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-vnet/sub
nets/lab02-subnet1]
azurerm_subnet_network_security_group_association.lab02_assoc: Refreshing state... [id=/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Netwo
rk/virtualNetworks/lab02-vnet/subnets/lab02-subnet1]

No changes. Your infrastructure matches the configuration.

Terraform has compared your real infrastructure against your configuration and found no differences, so no changes are needed.

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

C:\Users\Saad\Desktop\lab02>
```

PART 7

```
C:\Users\Saad\Desktop\lab02>terraform state list
azurerm_network_security_group.lab02_nsg1
azurerm_resource_group.lab02_rg
azurerm_subnet.lab02_subnet1
azurerm_subnet_network_security_group_association.lab02_assoc
azurerm_virtual_network.lab02_vnet
```

```
C:\Users\Saad\Desktop\lab02>terraform show
# azurerm_network_security_group.lab02_nsg1:
resource "azurerm_network_security_group" "lab02_nsg1" {
    id                  = "/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/networkSecurityGroups/lab02-nsg1"
    location            = "eastus"
    name                = "lab02-nsg1"
    resource_group_name = "lab02-rg"
    security_rule       = [
        {
            access                                     = "Allow"
            description                                = null
            destination_address_prefix                 = "*"
            destination_address_prefixes               = []
            destination_application_security_group_ids = []
            destination_port_range                     = "22"
            destination_port_ranges                    = []
            direction                                  = "Inbound"
            name                                       = "rule1"
            priority                                   = 100
            protocol                                   = "Tcp"
            source_address_prefix                      = "*"
            source_address_prefixes                    = []
            source_application_security_group_ids      = []
            source_port_range                          = "*"
            source_port_ranges                         = []
        },
    ]
    tags                = {}
}

# azurerm_resource_group.lab02_rg:
resource "azurerm_resource_group" "lab02_rg" {
    id         = "/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg"
    location   = "eastus"
    managed_by = null
    name       = "lab02-rg"
    tags       = {}
}

# azurerm_subnet.lab02_subnet1:
resource "azurerm_subnet" "lab02_subnet1" {
    address_prefixes                              = [
        "10.0.1.0/24",
    ]
    default_outbound_access_enabled               = true
    id                                            = "/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-vnet/subn
ets/lab02-subnet1"
    name                                          = "lab02-subnet1"
    private_endpoint_network_policies             = "Disabled"
    private_link_service_network_policies_enabled = true
    resource_group_name                           = "lab02-rg"
```

```
    resource_group_name                           = "lab02-rg"
    service_endpoint_policy_ids                   = []
    service_endpoints                             = []
    virtual_network_name                          = "lab02-vnet"
}

# azurerm_subnet_network_security_group_association.lab02_assoc:
resource "azurerm_subnet_network_security_group_association" "lab02_assoc" {
    id                        = "/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-vnet/subnets/lab02-subnet1"
    network_security_group_id = "/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/networkSecurityGroups/lab02-nsg1"
    subnet_id                 = "/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-vnet/subnets/lab02-subnet1"
}

# azurerm_virtual_network.lab02_vnet:
resource "azurerm_virtual_network" "lab02_vnet" {
    address_space                 = [
        "10.0.0.0/16",
    ]
    bgp_community                 = null
    dns_servers                   = []
    edge_zone                     = null
    flow_timeout_in_minutes       = 0
    guid                          = "206a5517-a602-4dab-891e-f64740cfc237"
    id                            = "/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-vnet"
    location                      = "eastus"
    name                          = "lab02-vnet"
    private_endpoint_vnet_policies = "Disabled"
    resource_group_name           = "lab02-rg"
    subnet                        = [
        {
            address_prefixes                              = [
                "10.0.1.0/24",
            ]
            default_outbound_access_enabled               = true
            delegation                                    = []
            id                                            = "/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-v
net/subnets/lab02-subnet1"
            name                                          = "lab02-subnet1"
            private_endpoint_network_policies             = "Disabled"
            private_link_service_network_policies_enabled = true
            route_table_id                                = null
            security_group                                = "/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/networkSecurityGroups/l
ab02-nsg1"
            service_endpoint_policy_ids                   = []
            service_endpoints                             = []
        },
    ]
    tags                          = {}
}

C:\Users\Saad\Desktop\lab02>
```

PART 8

PART 9

```
 1    terraform {
 2      required_providers {
 3        azurerm = {
 4          source  = "hashicorp/azurerm"
 5          version = ">= 3.0.0"
 6        }
 7      }
 8
 9      required_version = ">= 1.0.0"
10    }
11
12    provider "azurerm" {
13      features {}
14      subscription_id = "bfbe3041-7fa8-4038-8890-37ee17f2c645"
15    }
16
17    resource "azurerm_resource_group" "lab02_rg" {
18      name     = "lab02-rg"
19      location = "East US"
20    }
21
22    resource "azurerm_virtual_network" "lab02_vnet" {
23      name                = "lab02-vnet"
24      address_space       = ["10.0.0.0/16"]
25      location            = azurerm_resource_group.lab02_rg.location
26      resource_group_name = azurerm_resource_group.lab02_rg.name
27    }
28
29    # Subnet 1
30    resource "azurerm_subnet" "lab02_subnet1" {
31      name                 = "lab02-subnet1"
32      resource_group_name  = azurerm_resource_group.lab02_rg.name
33      virtual_network_name = azurerm_virtual_network.lab02_vnet.name
34      address_prefixes     = ["10.0.1.0/24"]
35    }
36
37    # Subnet 2 (NEW)
38    resource "azurerm_subnet" "lab02_subnet2" {
39      name                 = "lab02-subnet2"
40      resource_group_name  = azurerm_resource_group.lab02_rg.name
41      virtual_network_name = azurerm_virtual_network.lab02_vnet.name
42      address_prefixes     = ["10.0.2.0/24"]
43    }
44
45    # NSG 1
46    resource "azurerm_network_security_group" "lab02_nsg1" {
```

```terraform
45   # NSG 1
46   resource "azurerm_network_security_group" "lab02_nsg1" {
47     name                = "lab02-nsg1"
48     location            = azurerm_resource_group.lab02_rg.location
49     resource_group_name = azurerm_resource_group.lab02_rg.name
50
51     security_rule {
52       name                       = "rule1"
53       priority                   = 100
54       direction                  = "Inbound"
55       access                     = "Allow"
56       protocol                   = "Tcp"
57       source_port_range          = "*"
58       destination_port_range     = "22"
59       source_address_prefix      = "*"
60       destination_address_prefix = "*"
61     }
62   }
63
64   # NSG 2 (NEW)
65   resource "azurerm_network_security_group" "lab02_nsg2" {
66     name                = "lab02-nsg2"
67     location            = azurerm_resource_group.lab02_rg.location
68     resource_group_name = azurerm_resource_group.lab02_rg.name
69
70     security_rule {
71       name                       = "rule1"
72       priority                   = 100
73       direction                  = "Inbound"
74       access                     = "Allow"
75       protocol                   = "Tcp"
76       source_port_range          = "*"
77       destination_port_range     = "3389"
78       source_address_prefix      = "*"
79       destination_address_prefix = "*"
80     }
81
82     security_rule {
83       name                       = "rule2"
84       priority                   = 200
85       direction                  = "Inbound"
86       access                     = "Allow"
87       protocol                   = "Tcp"
88       source_port_range          = "*"
89       destination_port_range     = "5985"
90       source_address_prefix      = "*"
```

```
 62    }
 63
 64    # NSG 2 (NEW)
 65    resource "azurerm_network_security_group" "lab02_nsg2" {
 66      name                 = "lab02-nsg2"
 67      location             = azurerm_resource_group.lab02_rg.location
 68      resource_group_name = azurerm_resource_group.lab02_rg.name
 69
 70      security_rule {
 71        name                       = "rule1"
 72        priority                   = 100
 73        direction                  = "Inbound"
 74        access                     = "Allow"
 75        protocol                   = "Tcp"
 76        source_port_range          = "*"
 77        destination_port_range     = "3389"
 78        source_address_prefix      = "*"
 79        destination_address_prefix = "*"
 80      }
 81
 82      security_rule {
 83        name                       = "rule2"
 84        priority                   = 200
 85        direction                  = "Inbound"
 86        access                     = "Allow"
 87        protocol                   = "Tcp"
 88        source_port_range          = "*"
 89        destination_port_range     = "5985"
 90        source_address_prefix      = "*"
 91        destination_address_prefix = "*"
 92      }
 93    }
 94
 95    # Association for Subnet 1
 96    resource "azurerm_subnet_network_security_group_association" "lab02_assoc1" {
 97      subnet_id                 = azurerm_subnet.lab02_subnet1.id
 98      network_security_group_id = azurerm_network_security_group.lab02_nsg1.id
 99    }
100
101    # Association for Subnet 2 (NEW)
102    resource "azurerm_subnet_network_security_group_association" "lab02_assoc2" {
103      subnet_id                 = azurerm_subnet.lab02_subnet2.id
104      network_security_group_id = azurerm_network_security_group.lab02_nsg2.id
105    }
106
```

PART 10

```
C:\Users\Saad\Desktop\lab02>terraform validate
Success! The configuration is valid.


C:\Users\Saad\Desktop\lab02>
```

PART 11

```
C:\Users\Saad\Desktop\lab02>terraform plan
azurerm_resource_group.lab02_rg: Refreshing state... [id=/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg]
azurerm_subnet_network_security_group_association.lab02_assoc: Refreshing state... [id=/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Netwo
rk/virtualNetworks/lab02-vnet/subnets/lab02-subnet1]
azurerm_network_security_group.lab02_nsg1: Refreshing state... [id=/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/networkSecurityGr
oups/lab02-nsg1]
azurerm_virtual_network.lab02_vnet: Refreshing state... [id=/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-vn
et]
azurerm_subnet.lab02_subnet1: Refreshing state... [id=/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-vnet/sub
nets/lab02-subnet1]

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

Terraform will perform the following actions:

  # azurerm_network_security_group.lab02_nsg2 will be created
  + resource "azurerm_network_security_group" "lab02_nsg2" {
      + id                  = (known after apply)
      + location            = "eastus"
      + name                = "lab02-nsg2"
      + resource_group_name = "lab02-rg"
      + security_rule       = [
          + {
              + access                                     = "Allow"
              + destination_address_prefix                 = "*"
              + destination_address_prefixes               = []
              + destination_application_security_group_ids = []
              + destination_port_range                     = "3389"
              + destination_port_ranges                    = []
              + direction                                  = "Inbound"
              + name                                       = "rule1"
              + priority                                   = 100
              + protocol                                   = "Tcp"
              + source_address_prefix                      = "*"
              + source_address_prefixes                    = []
              + source_application_security_group_ids       = []
              + source_port_range                          = "*"
              + source_port_ranges                         = []
                # (1 unchanged attribute hidden)
            },
          + {
              + access                                     = "Allow"
              + destination_address_prefix                 = "*"
              + destination_address_prefixes               = []
              + destination_application_security_group_ids = []
              + destination_port_range                     = "5985"
              + destination_port_ranges                    = []
              + direction                                  = "Inbound"
              + name                                       = "rule2"
```

```
              + name                                       = "rule2"
              + priority                                   = 200
              + protocol                                   = "Tcp"
              + source_address_prefix                      = "*"
              + source_address_prefixes                    = []
              + source_application_security_group_ids       = []
              + source_port_range                          = "*"
              + source_port_ranges                         = []
                # (1 unchanged attribute hidden)
            },
        ]
    }

  # azurerm_subnet.lab02_subnet2 will be created
  + resource "azurerm_subnet" "lab02_subnet2" {
      + address_prefixes                              = [
          + "10.0.2.0/24",
        ]
      + default_outbound_access_enabled               = true
      + id                                            = (known after apply)
      + name                                          = "lab02-subnet2"
      + private_endpoint_network_policies             = "Disabled"
      + private_link_service_network_policies_enabled = true
      + resource_group_name                           = "lab02-rg"
      + virtual_network_name                          = "lab02-vnet"
    }

  # azurerm_subnet_network_security_group_association.lab02_assoc will be destroyed
  # (because azurerm_subnet_network_security_group_association.lab02_assoc is not in configuration)
  - resource "azurerm_subnet_network_security_group_association" "lab02_assoc" {
      - id                      = "/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-vnet/subnets/lab02-subnet
1" -> null
      - network_security_group_id = "/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/networkSecurityGroups/lab02-nsg1" -> null
      - subnet_id               = "/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-vnet/subnets/lab02-subnet
1" -> null
    }

  # azurerm_subnet_network_security_group_association.lab02_assoc1 will be created
  + resource "azurerm_subnet_network_security_group_association" "lab02_assoc1" {
      + id                      = (known after apply)
      + network_security_group_id = "/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/networkSecurityGroups/lab02-nsg1"
      + subnet_id               = "/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-vnet/subnets/lab02-subnet
1"
    }

  # azurerm_subnet_network_security_group_association.lab02_assoc2 will be created
  + resource "azurerm_subnet_network_security_group_association" "lab02_assoc2" {
      + id                      = (known after apply)
      + network_security_group_id = (known after apply)
      + subnet_id               = (known after apply)
    }
```

```
  # azurerm_subnet_network_security_group_association.lab02_assoc2 will be created
  + resource "azurerm_subnet_network_security_group_association" "lab02_assoc2" {
      + id                      = (known after apply)
      + network_security_group_id = (known after apply)
      + subnet_id               = (known after apply)
    }

Plan: 4 to add, 0 to change, 1 to destroy.
_____

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

C:\Users\Saad\Desktop\lab02>
```

PART 12

```
C:\Users\Saad\Desktop\lab02>terraform apply
azurerm_resource_group.lab02_rg: Refreshing state... [id=/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg]
azurerm_subnet_network_security_group_association.lab02_assoc: Refreshing state... [id=/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Netwo
rk/virtualNetworks/lab02-vnet/subnets/lab02-subnet1]
azurerm_virtual_network.lab02_vnet: Refreshing state... [id=/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-vn
et]
azurerm_network_security_group.lab02_nsg1: Refreshing state... [id=/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/networkSecurityGr
oups/lab02-nsg1]
azurerm_subnet.lab02_subnet1: Refreshing state... [id=/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-vnet/sub
nets/lab02-subnet1]

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

Terraform will perform the following actions:

  # azurerm_network_security_group.lab02_nsg2 will be created
  + resource "azurerm_network_security_group" "lab02_nsg2" {
      + id                  = (known after apply)
      + location            = "eastus"
      + name                = "lab02-nsg2"
      + resource_group_name = "lab02-rg"
      + security_rule       = [
          + {
              + access                                     = "Allow"
              + destination_address_prefix                 = "*"
              + destination_address_prefixes               = []
              + destination_application_security_group_ids = []
              + destination_port_range                     = "3389"
              + destination_port_ranges                    = []
              + direction                                  = "Inbound"
              + name                                       = "rule1"
              + priority                                   = 100
              + protocol                                   = "Tcp"
              + source_address_prefix                      = "*"
              + source_address_prefixes                    = []
              + source_application_security_group_ids      = []
              + source_port_range                          = "*"
              + source_port_ranges                         = []
                # (1 unchanged attribute hidden)
            },
          + {
              + access                                     = "Allow"
              + destination_address_prefix                 = "*"
              + destination_address_prefixes               = []
```

```
              + direction                                  = "Inbound"
              + name                                       = "rule1"
              + priority                                   = 100
              + protocol                                   = "Tcp"
              + source_address_prefix                      = "*"
              + source_address_prefixes                    = []
              + source_application_security_group_ids      = []
              + source_port_range                          = "*"
              + source_port_ranges                         = []
                # (1 unchanged attribute hidden)
            },
          + {
              + access                                     = "Allow"
              + destination_address_prefix                 = "*"
              + destination_address_prefixes               = []
              + destination_application_security_group_ids = []
              + destination_port_range                     = "5985"
              + destination_port_ranges                    = []
              + direction                                  = "Inbound"
              + name                                       = "rule2"
              + priority                                   = 200
              + protocol                                   = "Tcp"
              + source_address_prefix                      = "*"
              + source_address_prefixes                    = []
              + source_application_security_group_ids      = []
              + source_port_range                          = "*"
              + source_port_ranges                         = []
                # (1 unchanged attribute hidden)
            },
        ]
    }

  # azurerm_subnet.lab02_subnet2 will be created
  + resource "azurerm_subnet" "lab02_subnet2" {
      + address_prefixes                              = [
          + "10.0.2.0/24",
        ]
      + default_outbound_access_enabled               = true
      + id                                            = (known after apply)
      + name                                          = "lab02-subnet2"
      + private_endpoint_network_policies             = "Disabled"
      + private_link_service_network_policies_enabled = true
      + resource_group_name                           = "lab02-rg"
      + virtual_network_name                          = "lab02-vnet"
    }

  # azurerm_subnet_network_security_group_association.lab02_assoc will be destroyed
  # (because azurerm_subnet_network_security_group_association.lab02_assoc is not in configuration)
  - resource "azurerm_subnet_network_security_group_association" "lab02_assoc" {
      - id                  = "/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-vnet/subnets/lab02-subnet
```

```
# azurerm_subnet_network_security_group_association.lab02_assoc will be destroyed
# (because azurerm_subnet_network_security_group_association.lab02_assoc is not in configuration)
- resource "azurerm_subnet_network_security_group_association" "lab02_assoc" {
    - id                        = "/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-vnet/subnets/lab02-subnet
1" -> null
    - network_security_group_id = "/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/networkSecurityGroups/lab02-nsg1" -> null
    - subnet_id                 = "/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-vnet/subnets/lab02-subnet
1" -> null
    }

# azurerm_subnet_network_security_group_association.lab02_assoc1 will be created
+ resource "azurerm_subnet_network_security_group_association" "lab02_assoc1" {
    + id                        = (known after apply)
    + network_security_group_id = "/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/networkSecurityGroups/lab02-nsg1"
    + subnet_id                 = "/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-vnet/subnets/lab02-subnet
1"
    }

# azurerm_subnet_network_security_group_association.lab02_assoc2 will be created
+ resource "azurerm_subnet_network_security_group_association" "lab02_assoc2" {
    + id                        = (known after apply)
    + network_security_group_id = (known after apply)
    + subnet_id                 = (known after apply)
    }

Plan: 4 to add, 0 to change, 1 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

azurerm_subnet_network_security_group_association.lab02_assoc: Destroying... [id=/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/vir
tualNetworks/lab02-vnet/subnets/lab02-subnet1]
azurerm_subnet_network_security_group_association.lab02_assoc1: Creating...
azurerm_network_security_group.lab02_nsg2: Creating...
azurerm_subnet.lab02_subnet2: Creating...
azurerm_network_security_group.lab02_nsg2: Creation complete after 7s [id=/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/networkSec
urityGroups/lab02-nsg2]
azurerm_subnet_network_security_group_association.lab02_assoc: Still destroying... [id=/subscriptions/bfbe3041-7fa8-4038-8890-...works/lab02-vnet/subnets/lab02-subnet1, 10s elapsed]
azurerm_subnet.lab02_subnet2: Still creating... [10s elapsed]
azurerm_subnet.lab02_subnet2: Creation complete after 12s [id=/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-
vnet/subnets/lab02-subnet2]
azurerm_subnet_network_security_group_association.lab02_assoc2: Creating...
azurerm_subnet_network_security_group_association.lab02_assoc: Destruction complete after 19s
azurerm_subnet_network_security_group_association.lab02_assoc2: Still creating... [10s elapsed]
azurerm_subnet_network_security_group_association.lab02_assoc2: Creation complete after 17s [id=/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Micros
oft.Network/virtualNetworks/lab02-vnet/subnets/lab02-subnet2]
```

PART 13

```
C:\Users\Saad\Desktop\lab02>terraform state list
azurerm_network_security_group.lab02_nsg1
azurerm_network_security_group.lab02_nsg2
azurerm_resource_group.lab02_rg
azurerm_subnet.lab02_subnet1
azurerm_subnet.lab02_subnet2
azurerm_subnet_network_security_group_association.lab02_assoc2
azurerm_virtual_network.lab02_vnet

C:\Users\Saad\Desktop\lab02>
```

PART 14

PART 15


```
C:\Users\Saad\Desktop\lab02>terraform destroy
azurerm_resource_group.lab02_rg: Refreshing state... [id=/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg]
azurerm_network_security_group.lab02_nsg1: Refreshing state... [id=/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/networkSecurityGr
oups/lab02-nsg1]
azurerm_virtual_network.lab02_vnet: Refreshing state... [id=/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-vn
et]
azurerm_network_security_group.lab02_nsg2: Refreshing state... [id=/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/networkSecurityGr
oups/lab02-nsg2]
azurerm_subnet.lab02_subnet2: Refreshing state... [id=/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-vnet/sub
nets/lab02-subnet2]
azurerm_subnet.lab02_subnet1: Refreshing state... [id=/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-vnet/sub
nets/lab02-subnet1]
azurerm_subnet_network_security_group_association.lab02_assoc2: Refreshing state... [id=/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Netw
ork/virtualNetworks/lab02-vnet/subnets/lab02-subnet2]

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

Terraform will perform the following actions:

  # azurerm_network_security_group.lab02_nsg1 will be destroyed
  - resource "azurerm_network_security_group" "lab02_nsg1" {
      - id                  = "/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/networkSecurityGroups/lab02-nsg1" -> null
      - location            = "eastus" -> null
      - name                = "lab02-nsg1" -> null
      - resource_group_name = "lab02-rg" -> null
      - security_rule       = [
          - {
              - access                                     = "Allow"
              - destination_address_prefix                 = "*"
              - destination_address_prefixes               = []
              - destination_application_security_group_ids = []
              - destination_port_range                     = "22"
              - destination_port_ranges                    = []
              - direction                                  = "Inbound"
              - name                                       = "rule1"
              - priority                                   = 100
              - protocol                                   = "Tcp"
              - source_address_prefix                      = "*"
              - source_address_prefixes                    = []
              - source_application_security_group_ids      = []
              - source_port_range                          = "*"
              - source_port_ranges                         = []
                # (1 unchanged attribute hidden)
            },
        ] -> null
```

```
                },
        ] -> null
    - tags                        = {} -> null
}

# azurerm_network_security_group.lab02_nsg2 will be destroyed
- resource "azurerm_network_security_group" "lab02_nsg2" {
    - id                   = "/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/networkSecurityGroups/lab02-nsg2" -> null
    - location             = "eastus" -> null
    - name                 = "lab02-nsg2" -> null
    - resource_group_name  = "lab02-rg" -> null
    - security_rule        = [
            {
            - access                                      = "Allow"
            - destination_address_prefix                  = "*"
            - destination_address_prefixes                = []
            - destination_application_security_group_ids  = []
            - destination_port_range                      = "3389"
            - destination_port_ranges                     = []
            - direction                                   = "Inbound"
            - name                                        = "rule1"
            - priority                                    = 100
            - protocol                                    = "Tcp"
            - source_address_prefix                       = "*"
            - source_address_prefixes                     = []
            - source_application_security_group_ids       = []
            - source_port_range                           = "*"
            - source_port_ranges                          = []
              # (1 unchanged attribute hidden)
            },
          - {
            - access                                      = "Allow"
            - destination_address_prefix                  = "*"
            - destination_address_prefixes                = []
            - destination_application_security_group_ids  = []
            - destination_port_range                      = "5985"
            - destination_port_ranges                     = []
            - direction                                   = "Inbound"
            - name                                        = "rule2"
            - priority                                    = 200
            - protocol                                    = "Tcp"
            - source_address_prefix                       = "*"
            - source_address_prefixes                     = []
            - source_application_security_group_ids       = []
            - source_port_range                           = "*"
            - source_port_ranges                          = []
              # (1 unchanged attribute hidden)
            },
        ] -> null
    - tags                 = {} -> null
}
```

```
# azurerm_resource_group.lab02_rg will be destroyed
- resource "azurerm_resource_group" "lab02_rg" {
    - id       = "/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg" -> null
    - location = "eastus" -> null
    - name     = "lab02-rg" -> null
    - tags     = {} -> null
      # (1 unchanged attribute hidden)
}

# azurerm_subnet.lab02_subnet1 will be destroyed
- resource "azurerm_subnet" "lab02_subnet1" {
    - address_prefixes                              = [
        - "10.0.1.0/24",
        ] -> null
    - default_outbound_access_enabled               = true -> null
    - id                                            = "/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-vnet/
subnets/lab02-subnet1" -> null
    - name                                          = "lab02-subnet1" -> null
    - private_endpoint_network_policies             = "Disabled" -> null
    - private_link_service_network_policies_enabled = true -> null
    - resource_group_name                           = "lab02-rg" -> null
    - service_endpoint_policy_ids                   = [] -> null
    - service_endpoints                             = [] -> null
    - virtual_network_name                          = "lab02-vnet" -> null
}

# azurerm_subnet.lab02_subnet2 will be destroyed
- resource "azurerm_subnet" "lab02_subnet2" {
    - address_prefixes                              = [
        - "10.0.2.0/24",
        ] -> null
    - default_outbound_access_enabled               = true -> null
    - id                                            = "/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-vnet/
subnets/lab02-subnet2" -> null
    - name                                          = "lab02-subnet2" -> null
    - private_endpoint_network_policies             = "Disabled" -> null
    - private_link_service_network_policies_enabled = true -> null
    - resource_group_name                           = "lab02-rg" -> null
    - service_endpoint_policy_ids                   = [] -> null
    - service_endpoints                             = [] -> null
    - virtual_network_name                          = "lab02-vnet" -> null
}

# azurerm_subnet_network_security_group_association.lab02_assoc2 will be destroyed
- resource "azurerm_subnet_network_security_group_association" "lab02_assoc2" {
    - id                   = "/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-vnet/subnets/lab02-subnet
```

```
# azurerm_subnet_network_security_group_association.lab02_assoc2 will be destroyed
- resource "azurerm_subnet_network_security_group_association" "lab02_assoc2" {
    - id                        = "/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-vnet/subnets/lab02-subnet
2" -> null
    - network_security_group_id = "/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/networkSecurityGroups/lab02-nsg2" -> null
    - subnet_id                 = "/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-vnet/subnets/lab02-subnet
2" -> null
  }

# azurerm_virtual_network.lab02_vnet will be destroyed
- resource "azurerm_virtual_network" "lab02_vnet" {
    - address_space          = [
        - "10.0.0.0/16",
      ] -> null
    - dns_servers            = [] -> null
    - flow_timeout_in_minutes = 0 -> null
    - guid                   = "206a5517-a602-4dab-891e-f64740cfc237" -> null
    - id                     = "/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-vnet" -> null
    - location               = "eastus" -> null
    - name                   = "lab02-vnet" -> null
    - private_endpoint_vnet_policies = "Disabled" -> null
    - resource_group_name    = "lab02-rg" -> null
    - subnet                 = [
        - {
            - address_prefixes                          = [
                - "10.0.1.0/24",
              ]
            - default_outbound_access_enabled           = true
            - delegation                                = []
            - id                                        = "/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab
02-vnet/subnets/lab02-subnet1"
            - name                                      = "lab02-subnet1"
            - private_endpoint_network_policies         = "Disabled"
            - private_link_service_network_policies_enabled = true
            - service_endpoint_policy_ids               = []
            - service_endpoints                         = []
              # (2 unchanged attributes hidden)
          },
        - {
            - address_prefixes                          = [
                - "10.0.2.0/24",
              ]
            - default_outbound_access_enabled           = true
            - delegation                                = []
            - id                                        = "/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab
02-vnet/subnets/lab02-subnet2"
            - name                                      = "lab02-subnet2"
            - private_endpoint_network_policies         = "Disabled"
            - private_link_service_network_policies_enabled = true
```

```
            - private_endpoint_network_policies         = "Disabled"
            - private_link_service_network_policies_enabled = true
            - security_group                            = "/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/networkSecurityGrou
ps/lab02-nsg2"
            - service_endpoint_policy_ids               = []
            - service_endpoints                         = []
              # (1 unchanged attribute hidden)
          },
      ] -> null
    - tags                   = {} -> null
      # (2 unchanged attributes hidden)
  }

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

Do you really want to destroy all resources?
  Terraform will destroy all your managed infrastructure, as shown above.
  There is no undo. Only 'yes' will be accepted to confirm.

  Enter a value: yes

azurerm_subnet_network_security_group_association.lab02_assoc2: Destroying... [id=/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/vi
rtualNetworks/lab02-vnet/subnets/lab02-subnet2]
azurerm_subnet.lab02_subnet1: Destroying... [id=/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-vnet/subnets/l
ab02-subnet1]
azurerm_network_security_group.lab02_nsg1: Destroying... [id=/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/networkSecurityGroups/l
ab02-nsg1]
azurerm_subnet_network_security_group_association.lab02_assoc2: Still destroying... [id=/subscriptions/bfbe3041-7fa8-4038-8890-...works/lab02-vnet/subnets/lab02-subnet2, 10s elapsed]
azurerm_network_security_group.lab02_nsg1: Still destroying... [id=/subscriptions/bfbe3041-7fa8-4038-8890-...twork/networkSecurityGroups/lab02-nsg1, 10s elapsed]
azurerm_subnet.lab02_subnet1: Still destroying... [id=/subscriptions/bfbe3041-7fa8-4038-8890-...works/lab02-vnet/subnets/lab02-subnet1, 10s elapsed]
azurerm_subnet.lab02_subnet1: Destruction complete after 12s
azurerm_network_security_group.lab02_nsg1: Destruction complete after 13s
azurerm_subnet_network_security_group_association.lab02_assoc2: Destruction complete after 18s
azurerm_subnet.lab02_subnet2: Destroying... [id=/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-vnet/subnets/l
ab02-subnet2]
azurerm_network_security_group.lab02_nsg2: Destroying... [id=/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/networkSecurityGroups/l
ab02-nsg2]
azurerm_subnet.lab02_subnet2: Still destroying... [id=/subscriptions/bfbe3041-7fa8-4038-8890-...works/lab02-vnet/subnets/lab02-subnet2, 10s elapsed]
azurerm_network_security_group.lab02_nsg2: Still destroying... [id=/subscriptions/bfbe3041-7fa8-4038-8890-...twork/networkSecurityGroups/lab02-nsg2, 10s elapsed]
azurerm_subnet.lab02_subnet2: Destruction complete after 11s
azurerm_virtual_network.lab02_vnet: Destroying... [id=/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-vnet]
azurerm_network_security_group.lab02_nsg2: Destruction complete after 13s
azurerm_virtual_network.lab02_vnet: Still destroying... [id=/subscriptions/bfbe3041-7fa8-4038-8890-...oft.Network/virtualNetworks/lab02-vnet, 10s elapsed]
azurerm_virtual_network.lab02_vnet: Destruction complete after 15s
azurerm_resource_group.lab02_rg: Destroying... [id=/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg]
azurerm_resource_group.lab02_rg: Still destroying... [id=/subscriptions/bfbe3041-7fa8-4038-8890-37ee17f2c645/resourceGroups/lab02-rg, 10s elapsed]
azurerm_resource_group.lab02_rg: Destruction complete after 20s

Destroy complete! Resources: 7 destroyed.

C:\Users\Saad\Desktop\lab02>
```

```
C:\Users\Saad\Desktop\lab02>terraform state list

C:\Users\Saad\Desktop\lab02>terraform show
The state file is empty. No resources are represented.

C:\Users\Saad\Desktop\lab02>
```