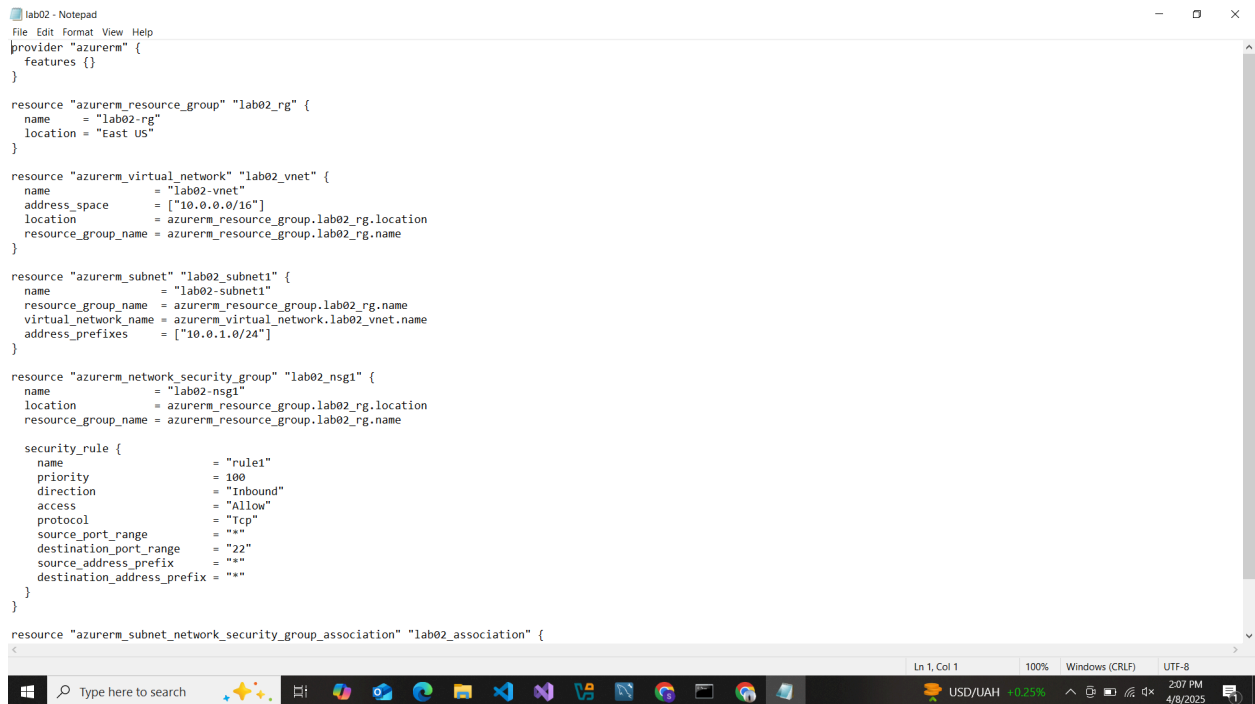


# Students:

## Sameer Sikandar Ali - 2112196

## Shahrukh Karim - 2212236



```
lab02 - Notepad
File Edit Format View Help
provider "azurerm" {
  features {}
}

resource "azurerm_resource_group" "lab02_rg" {
  name     = "lab02-rg"
  location = "East US"
}

resource "azurerm_virtual_network" "lab02_vnet" {
  name            = "lab02-vnet"
  address_space   = ["10.0.0.0/16"]
  location        = azurerm_resource_group.lab02_rg.location
  resource_group_name = azurerm_resource_group.lab02_rg.name
}

resource "azurerm_subnet" "lab02_subnet1" {
  name                 = "lab02-subnet1"
  resource_group_name = azurerm_resource_group.lab02_rg.name
  virtual_network_name = azurerm_virtual_network.lab02_vnet.name
  address_prefixes     = ["10.0.1.0/24"]
}

resource "azurerm_network_security_group" "lab02_nsg1" {
  name     = "lab02-nsg1"
  location = azurerm_resource_group.lab02_rg.location
  resource_group_name = azurerm_resource_group.lab02_rg.name

  security_rule {
    name                = "rule1"
    priority             = 100
    direction           = "Inbound"
    access               = "Allow"
    protocol             = "Tcp"
    source_port_range    = "*"
    destination_port_range = "22"
    source_address_prefix = "*"
    destination_address_prefix = "*"
  }
}

resource "azurerm_subnet_network_security_group_association" "lab02_association" {
```

```
resource "azurerm_subnet_network_security_group_association" "lab02_association" {
  subnet_id          = azurerm_subnet.lab02_subnet1.id
  network_security_group_id = azurerm_network_security_group.lab02_nsg1.id
}
```

Administrator: Command Prompt

```
C:\Windows\System32>mkdir %USERPROFILE%\lab02
A subdirectory or file C:\Users\Shahrukh already exists.
Error occurred while processing: C:\Users\Shahrukh.

C:\Windows\System32>mkdir lab02

C:\Windows\System32>cd lab02

C:\Windows\System32\lab02>type nul > lab02.tf

C:\Windows\System32\lab02>terraform init
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:\Windows\System32\lab02>
```





```
C:\Windows\System32\lab02>terraform validate
Success! The configuration is valid.
```

```
C:\Windows\System32\lab02>
```

```
C:\Windows\System32\lab02>terraform plan
azure_rm_resource_group.lab02_rg: Refreshing state... [id=/subscriptions/c15a3ad3-647c-4f4b-a4d8-e7d65e487e87/resourceGroups/lab02-rg]
azure_rm_virtual_network.lab02_vnet: Refreshing state... [id=/subscriptions/c15a3ad3-647c-4f4b-a4d8-e7d65e487e87/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-vnet]
azure_rm_network_security_group.lab02_nsg1: Refreshing state... [id=/subscriptions/c15a3ad3-647c-4f4b-a4d8-e7d65e487e87/resourceGroups/lab02-rg/providers/Microsoft.Network/networkSecurityGroups/lab02-nsg1]
azure_rm_subnet.lab02_subnet1: Refreshing state... [id=/subscriptions/c15a3ad3-647c-4f4b-a4d8-e7d65e487e87/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-vnet/subnets/lab02-subnet1]
azure_rm_subnet_network_security_group_association.lab02_association: Refreshing state... [id=/subscriptions/c15a3ad3-647c-4f4b-a4d8-e7d65e487e87/resourceGroups/lab02-rg/providers/Microsoft.Network/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:\Windows\System32\lab02>
```

```
C:\Windows\System32\lab02>terraform apply
azure_rm_resource_group.lab02_rg: Refreshing state... [id=/subscriptions/c15a3ad3-647c-4f4b-a4d8-e7d65e487e87/resourceGroups/lab02-rg]
azure_rm_virtual_network.lab02_vnet: Refreshing state... [id=/subscriptions/c15a3ad3-647c-4f4b-a4d8-e7d65e487e87/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-vnet]
azure_rm_network_security_group.lab02_nsg1: Refreshing state... [id=/subscriptions/c15a3ad3-647c-4f4b-a4d8-e7d65e487e87/resourceGroups/lab02-rg/providers/Microsoft.Network/networkSecurityGroups/lab02-nsg1]
azure_rm_subnet.lab02_subnet1: Refreshing state... [id=/subscriptions/c15a3ad3-647c-4f4b-a4d8-e7d65e487e87/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-vnet/subnets/lab02-subnet1]
azure_rm_subnet_network_security_group_association.lab02_association: Refreshing state... [id=/subscriptions/c15a3ad3-647c-4f4b-a4d8-e7d65e487e87/resourceGroups/lab02-rg/providers/Microsoft.Network/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:\Windows\System32\lab02>
```

```
C:\Windows\System32\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_association
azurerm_virtual_network.lab02_vnet
```

```
C:\Windows\System32\lab02>
```

```

C:\Windows\System32\lab02>terraform show
# azure_rm_network_security_group.lab02_nsg1:
resource "azure_rm_network_security_group" "lab02_nsg1" {
  id           = "/subscriptions/c15a3ad3-647c-4f4b-a4d8-e7d65e487e87/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 = {}
}

# azure_rm_resource_group.lab02_rg:
resource "azure_rm_resource_group" "lab02_rg" {
  id           = "/subscriptions/c15a3ad3-647c-4f4b-a4d8-e7d65e487e87/resourceGroups/lab02-rg"
  location     = "eastus"
  managed_by = null
  name        = "lab02-rg"
  tags       = {}
}

# azure_rm_subnet.lab02_subnet1:
resource "azure_rm_subnet" "lab02_subnet1" {
  address_prefixes = [
    "10.0.1.0/24",
  ]
  default_outbound_access_enabled = true
  id                             = "/subscriptions/c15a3ad3-647c-4f4b-a4d8-e7d65e487e87/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
}

```

```

Administrator: Command Prompt
private_link_service_network_policies_enabled = true
resource_group_name = "lab02-rg"
service_endpoint_policy_ids = []
service_endpoints = []
virtual_network_name = "lab02-vnet"
}

# azure_rm_subnet_network_security_group_association.lab02_association:
resource "azure_rm_subnet_network_security_group_association" "lab02_association" {
  id = "/subscriptions/c15a3ad3-647c-4f4b-a4d8-e7d65e487e87/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-vnet/subnets/lab02-subnet1"
  network_security_group_id = "/subscriptions/c15a3ad3-647c-4f4b-a4d8-e7d65e487e87/resourceGroups/lab02-rg/providers/Microsoft.Network/networkSecurityGroups/lab02-nsg1"
  subnet_id = "/subscriptions/c15a3ad3-647c-4f4b-a4d8-e7d65e487e87/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-vnet/subnets/lab02-subnet1"
}

# azure_rm_virtual_network.lab02_vnet:
resource "azure_rm_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 = "f4bdac7a-9485-4d86-b410-065e0a9d2d59"
  id = "/subscriptions/c15a3ad3-647c-4f4b-a4d8-e7d65e487e87/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/c15a3ad3-647c-4f4b-a4d8-e7d65e487e87/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
      route_table_id = null
      security_group = "/subscriptions/c15a3ad3-647c-4f4b-a4d8-e7d65e487e87/resourceGroups/lab02-rg/providers/Microsoft.Network/networkSecurityGroups/lab02-nsg1"
      service_endpoint_policy_ids = []
      service_endpoints = []
    }
  ],
  tags = {}
}

```

Microsoft Azure portal interface showing the 'lab02-rg' resource group overview. The page displays a list of resources within the group, including 'lab02-nsg1' (Network security group) and 'lab02-vnet' (Virtual network). The interface includes navigation tabs like Overview, Activity log, Access control (IAM), Tags, Resource visualizer, Events, Settings, Cost Management, Monitoring, Automation, and Help. A search bar is visible at the top, and a 'You are viewing a new version of Browse experience' message is present on the left. The bottom of the page shows a Windows taskbar with various application icons and system tray information.

```
lab02 - Notepad
File Edit Format View Help
# Configure the Azure provider
provider "azurerm" {
  features {}
}

# Resource group
resource "azurerm_resource_group" "lab02" {
  name     = "lab02-rg"
  location = "eastus"
}

# Virtual network
resource "azurerm_virtual_network" "lab02" {
  name            = "lab02-vnet"
  address_space   = ["10.0.0.0/16"]
  location        = azurerm_resource_group.lab02.location
  resource_group_name = azurerm_resource_group.lab02.name
}

# Subnet 1 (original)
resource "azurerm_subnet" "lab02_subnet1" {
  name                 = "lab02-subnet1"
  resource_group_name = azurerm_resource_group.lab02.name
  virtual_network_name = azurerm_virtual_network.lab02.name
  address_prefixes     = ["10.0.1.0/24"]
}

# --- NEW ADDITIONS BELOW ---

# Subnet 2 (new)
resource "azurerm_subnet" "lab02_subnet2" {
  name                 = "lab02-subnet2"
  resource_group_name = azurerm_resource_group.lab02.name
  virtual_network_name = azurerm_virtual_network.lab02.name
  address_prefixes     = ["10.0.2.0/24"]
}

# Network Security Group (new)
resource "azurerm_network_security_group" "lab02_nsg2" {
  name     = "lab02-nsg2"
  location = azurerm_resource_group.lab02.location
  resource_group_name = azurerm_resource_group.lab02.name
}
```

```
resource_group_name = azurerm_resource_group.lab02.name

security_rule {
  name           = "rule1"
  priority       = 100
  direction      = "Inbound"
  access         = "Allow"
  protocol       = "Tcp"
  source_port_range = "*"
  destination_port_range = "3389" # RDP
  source_address_prefix = "*"
  destination_address_prefix = "*"
}

security_rule {
  name           = "rule2"
  priority       = 200
  direction      = "Inbound"
  access         = "Allow"
  protocol       = "Tcp"
  source_port_range = "*"
  destination_port_range = "5985" # WinRM
  source_address_prefix = "*"
  destination_address_prefix = "*"
}
}

# Associate NSG with Subnet 2
resource "azurerm_subnet_network_security_group_association" "lab02_nsg2_assoc" {
  subnet_id      = azurerm_subnet.lab02_subnet2.id
  network_security_group_id = azurerm_network_security_group.lab02_nsg2.id
}
```

```
C:\Windows\System32\lab02>terraform validate
Success! The configuration is valid.
```

```
C:\Windows\System32\lab02>
```



```
Select Administrator: Command Prompt

C:\Windows\System32\lab02>terraform plan
azure_rm_resource_group.lab02_rg: Refreshing state... [id=/subscriptions/c15a3ad3-647c-4f4b-a4d8-e7d65e487e87/resourceGroups/lab02-rg]
azure_rm_network_security_group.lab02_nsg1: Refreshing state... [id=/subscriptions/c15a3ad3-647c-4f4b-a4d8-e7d65e487e87/resourceGroups/lab02-rg/providers/Microsoft.Network/networkSecurityGroups/lab02-nsg1]
azure_rm_subnet_network_security_group_association.lab02_association: Refreshing state... [id=/subscriptions/c15a3ad3-647c-4f4b-a4d8-e7d65e487e87/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-vnet/subnets/lab02-subnet1]
azure_rm_virtual_network.lab02_vnet: Refreshing state... [id=/subscriptions/c15a3ad3-647c-4f4b-a4d8-e7d65e487e87/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-vnet]
azure_rm_subnet.lab02_subnet1: Refreshing state... [id=/subscriptions/c15a3ad3-647c-4f4b-a4d8-e7d65e487e87/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-vnet/subnets/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:

# azure_rm_network_security_group.lab02_nsg1 will be destroyed
# (because azure_rm_network_security_group.lab02_nsg1 is not in configuration)
resource "azure_rm_network_security_group" "lab02_nsg1" {
  id = "/subscriptions/c15a3ad3-647c-4f4b-a4d8-e7d65e487e87/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 = []
    }
  ] -> null
  tags = {} -> null
}

# azure_rm_network_security_group.lab02_nsg2 will be created
resource "azure_rm_network_security_group" "lab02_nsg2" {
  id = (known after apply)
  location = "eastus"
  name = "lab02-nsg2"
}
```

```
Select Administrator: Command Prompt

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

```
Administrator: Command Prompt

+ location = "eastus"
+ name = "lab02-rg"
}

# azure_rm_resource_group.lab02_rg will be destroyed
# (because azure_rm_resource_group.lab02_rg is not in configuration)
resource "azure_rm_resource_group" "lab02_rg" {
  id = "/subscriptions/c15a3ad3-647c-4f4b-a4d8-e7d65e487e87/resourceGroups/lab02-rg" -> null
  location = "eastus" -> null
  name = "lab02-rg" -> null
  tags = {} -> null
  # (1 unchanged attribute hidden)
}

# azure_rm_subnet.lab02_subnet2 will be created
+ resource "azure_rm_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"
}

# azure_rm_subnet_network_security_group_association.lab02_association will be destroyed
# (because azure_rm_subnet_network_security_group_association.lab02_association is not in configuration)
resource "azure_rm_subnet_network_security_group_association" "lab02_association" {
  id = "/subscriptions/c15a3ad3-647c-4f4b-a4d8-e7d65e487e87/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-vnet/subnets/lab02-subnet1" -> null
  network_security_group_id = "/subscriptions/c15a3ad3-647c-4f4b-a4d8-e7d65e487e87/resourceGroups/lab02-rg/providers/Microsoft.Network/networkSecurityGroups/lab02-nsg1" -> null
  subnet_id = "/subscriptions/c15a3ad3-647c-4f4b-a4d8-e7d65e487e87/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-vnet/subnets/lab02-subnet1" -> null
}

# azure_rm_subnet_network_security_group_association.lab02_nsg2_assoc will be created
+ resource "azure_rm_subnet_network_security_group_association" "lab02_nsg2_assoc" {
+ id = (known after apply)
+ network_security_group_id = (known after apply)
+ subnet_id = (known after apply)
}

# azure_rm_virtual_network.lab02 will be created
+ resource "azure_rm_virtual_network" "lab02" {
+ address_space = [
+   "10.0.0.0/16",
+ ]
+ dns_servers = (known after apply)
+ guid = (known after apply)
}
```

```
Administrator: Command Prompt

resource "azurerm_subnet_network_security_group_association" "lab02_nsg2_assoc" {
  id = (known after apply)
  network_security_group_id = (known after apply)
  subnet_id = (known after apply)
}

# azurerm_virtual_network.lab02 will be created
+ resource "azurerm_virtual_network" "lab02" {
+   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)
+ }

# azurerm_virtual_network.lab02_vnet will be destroyed
# (because azurerm_virtual_network.lab02_vnet is not in configuration)
- resource "azurerm_virtual_network" "lab02_vnet" {
-   address_space = [
-     "10.0.0.0/16",
-   ] -> null
-   dns_servers = [] -> null
-   flow_timeout_in_minutes = 0 -> null
-   guid = "f4bdac7a-9485-4d86-b410-065e0a9d2d59" -> null
-   id = "/subscriptions/c15a3ad3-647c-4f4b-a4d8-e7d65e487e87/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/c15a3ad3-647c-4f4b-a4d8-e7d65e487e87/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-vnet/subnets/lab02-s
-       name = "lab02-subnet1"
-       private_endpoint_network_policies = "Disabled"
-       private_link_service_network_policies_enabled = true
-       security_group = "/subscriptions/c15a3ad3-647c-4f4b-a4d8-e7d65e487e87/resourceGroups/lab02-rg/providers/Microsoft.Network/networkSecurityGroups/lab02-nsg1"
-       service_endpoint_policy_ids = []
-       service_endpoints = []
-     }
-   ]
- }

Type here to search 30°C Mostly clear 7:56 PM 4/8/2025
```

```
Administrator: Command Prompt

-   ] -> null
-   dns_servers = [] -> null
-   flow_timeout_in_minutes = 0 -> null
-   guid = "f4bdac7a-9485-4d86-b410-065e0a9d2d59" -> null
-   id = "/subscriptions/c15a3ad3-647c-4f4b-a4d8-e7d65e487e87/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/c15a3ad3-647c-4f4b-a4d8-e7d65e487e87/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-vnet/subnets/lab02-s
-       name = "lab02-subnet1"
-       private_endpoint_network_policies = "Disabled"
-       private_link_service_network_policies_enabled = true
-       security_group = "/subscriptions/c15a3ad3-647c-4f4b-a4d8-e7d65e487e87/resourceGroups/lab02-rg/providers/Microsoft.Network/networkSecurityGroups/lab02-nsg1"
-       service_endpoint_policy_ids = []
-       service_endpoints = []
-     }
-   ],
-   # (1 unchanged attribute hidden)
-   } -> null
-   tags = {} -> null
-   # (2 unchanged attributes hidden)
- }

Plan: 5 to add, 0 to change, 4 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:\Windows\System32\lab02>
```

```
C:\Windows\System32\lab02>terraform apply
azure_resource_group.lab02_rg: Refreshing state... [id=/subscriptions/c15a3ad3-647c-4f4b-a4d8-e7d65e487e87/resourceGroups/lab02-rg]
azure_virtual_network.lab02_vnet: Refreshing state... [id=/subscriptions/c15a3ad3-647c-4f4b-a4d8-e7d65e487e87/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-vnet]
azure_subnet_network_security_group_association.lab02_association: Refreshing state... [id=/subscriptions/c15a3ad3-647c-4f4b-a4d8-e7d65e487e87/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-vnet/subnets/lab02-subnet1]
azure_network_security_group.lab02_nsg1: Refreshing state... [id=/subscriptions/c15a3ad3-647c-4f4b-a4d8-e7d65e487e87/resourceGroups/lab02-rg/providers/Microsoft.Network/networkSecurityGroups/lab02-nsg1]
azure_subnet.lab02_subnet1: Refreshing state... [id=/subscriptions/c15a3ad3-647c-4f4b-a4d8-e7d65e487e87/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-vnet/subnets/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:

# azure_network_security_group.lab02_nsg1 will be destroyed
# (because azure_network_security_group.lab02_nsg1 is not in configuration)
resource "azure_network_security_group" "lab02_nsg1" {
  id = "/subscriptions/c15a3ad3-647c-4f4b-a4d8-e7d65e487e87/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)
}

}

Type here to search 29°C Mostly clear 7:59 PM 4/8/2025
```

```
Administrator Command Prompt
} -> null
tags = {} -> null
}

# azure_network_security_group.lab02_nsg2 will be created
resource "azure_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"
  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)
}
}

Type here to search 29°C Mostly clear 8:00 PM 4/8/2025
```

```
Administrator: Command Prompt

+ source_address_prefix = ""
+ source_address_prefixes = []
+ source_application_security_group_ids = []
+ source_port_range = ""
+ source_port_ranges = []
# (1 unchanged attribute hidden)
}
}

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

# azure_rm_resource_group.lab02_rg will be destroyed
# (because azure_rm_resource_group.lab02_rg is not in configuration)
resource "azure_rm_resource_group" "lab02_rg" {
- id = "/subscriptions/c15a3ad3-647c-4f4b-a4d8-e7d65e487e87/resourceGroups/lab02-rg" -> null
- location = "eastus" -> null
- name = "lab02-rg" -> null
- tags = {} -> null
# (1 unchanged attribute hidden)
}

# azure_rm_subnet.lab02_subnet2 will be created
resource "azure_rm_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"
}

# azure_rm_subnet_network_security_group_association.lab02_association will be destroyed
# (because azure_rm_subnet_network_security_group_association.lab02_association is not in configuration)
resource "azure_rm_subnet_network_security_group_association" "lab02_association" {
- id = "/subscriptions/c15a3ad3-647c-4f4b-a4d8-e7d65e487e87/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-vnet/subnets/lab02-subnet1" -> null
- network_security_group_id = "/subscriptions/c15a3ad3-647c-4f4b-a4d8-e7d65e487e87/resourceGroups/lab02-rg/providers/Microsoft.Network/networkSecurityGroups/lab02-nsg1" -> null
- subnet_id = "/subscriptions/c15a3ad3-647c-4f4b-a4d8-e7d65e487e87/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-vnet/subnets/lab02-subnet1" -> null
}

# azure_rm_subnet_network_security_group_association.lab02_nsg2_assoc will be created
```

```
Administrator: Command Prompt

resource "azure_rm_subnet_network_security_group_association" "lab02_nsg2_assoc" {
+ id = (known after apply)
+ network_security_group_id = (known after apply)
+ subnet_id = (known after apply)
}

# azure_rm_virtual_network.lab02 will be created
resource "azure_rm_virtual_network" "lab02" {
+ 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)
}

# azure_rm_virtual_network.lab02_vnet will be destroyed
# (because azure_rm_virtual_network.lab02_vnet is not in configuration)
resource "azure_rm_virtual_network" "lab02_vnet" {
- address_space = [
- "10.0.0.0/16",
- ] -> null
- dns_servers = [] -> null
- flow_timeout_in_minutes = 0 -> null
- guid = "f4bdac7a-9485-4d86-b410-065e0a9d2d59" -> null
- id = "/subscriptions/c15a3ad3-647c-4f4b-a4d8-e7d65e487e87/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/c15a3ad3-647c-4f4b-a4d8-e7d65e487e87/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
- security_group = "/subscriptions/c15a3ad3-647c-4f4b-a4d8-e7d65e487e87/resourceGroups/lab02-rg/providers/Microsoft.Network/networkSecurityGroups/lab02-nsg1"
- service_endpoint_policy_ids = []
- service_endpoints = []
- }
- ]
}

lab02-subnet1"
```

```
Administrator Command Prompt
# (1 unchanged attribute hidden)
},
] -> null
- tags = {} -> null
# (2 unchanged attributes hidden)
)

Plan: 5 to add, 0 to change, 4 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_association: Destroying... [id=/subscriptions/c15a3ad3-647c-4f4b-a4d8-e7d65e487e87/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-vnet/subnets/lab02-subnet1]
azurerm_resource_group.lab02: Creating...
azurerm_subnet_network_security_group_association.lab02_association: Destruction complete after 7s
azurerm_network_security_group.lab02_nsg1: Destroying... [id=/subscriptions/c15a3ad3-647c-4f4b-a4d8-e7d65e487e87/resourceGroups/lab02-rg/providers/Microsoft.Network/networkSecurityGroups/lab02-nsg1]
azurerm_virtual_network.lab02_vnet: Destroying... [id=/subscriptions/c15a3ad3-647c-4f4b-a4d8-e7d65e487e87/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-vnet]
azurerm_network_security_group.lab02_nsg1: Still destroying... [id=/subscriptions/c15a3ad3-647c-4f4b-a4d8-e7d65e487e87/resourceGroups/lab02-rg/providers/Microsoft.Network/networkSecurityGroups/lab02-nsg1, 10s elapsed]
azurerm_virtual_network.lab02_vnet: Still destroying... [id=/subscriptions/c15a3ad3-647c-4f4b-a4d8-e7d65e487e87/resourceGroups/lab02-rg/providers/Microsoft.Network/virtualNetworks/lab02-vnet, 10s elapsed]
azurerm_virtual_network.lab02_vnet: Destruction complete after 14s
azurerm_network_security_group.lab02_nsg1: Destruction complete after 14s
azurerm_resource_group.lab02_rg: Destroying... [id=/subscriptions/c15a3ad3-647c-4f4b-a4d8-e7d65e487e87/resourceGroups/lab02-rg]
azurerm_resource_group.lab02_rg: Still destroying... [id=/subscriptions/c15a3ad3-647c-4f4b-a4d8-e7d65e487e87/resourceGroups/lab02-rg, 10s elapsed]
azurerm_resource_group.lab02_rg: Still destroying... [id=/subscriptions/c15a3ad3-647c-4f4b-a4d8-e7d65e487e87/resourceGroups/lab02-rg, 20s elapsed]
azurerm_resource_group.lab02_rg: Destruction complete after 22s
```

```
C:\Windows\System32\lab02>terraform state list
azurerm_subnet.lab02_subnet1

C:\Windows\System32\lab02>
```

Microsoft Azure portal screenshot showing Resource groups. The page displays a table with one resource group: NetworkWatcherRG, located in East US, under the Azure for Students subscription.

Name	Subscription	Location
NetworkWatcherRG	Azure for Students	East US

Showing 1 - 1 of 1. Display count: 10

```
C:\Windows\System32\lab02>terraform state list

C:\Windows\System32\lab02>terraform show
The state file is empty. No resources are represented.

C:\Windows\System32\lab02>
```