

Terraform Lab 03

Murtaza Ali qazi(2112120) & Sabih Ul hassan (2112126)

DEVOPS

SZABIST KARACHI

```
C:\Windows\system32\cmd.exe

The default is marked with an *; the default tenant is 'cc933a3f-7958-44cf-a7d3-0d09f4a1c3d9' and subscription is 'Azure for Students' (aa8e2ee3-febb-442f-8360-c2f40ff36ef2).

Select a subscription and tenant (Type a number or Enter for no changes): 1

Tenant: cc933a3f-7958-44cf-a7d3-0d09f4a1c3d9
Subscription: Azure for Students (aa8e2ee3-febb-442f-8360-c2f40ff36ef2)

[Announcements]
With the new Azure CLI login experience, you can select the subscription you want to use more easily. Learn more about it and its configuration at https://go.microsoft.com/fwlink/?linkid=2271236

If you encounter any problem, please open an issue at https://aka.ms/azclibug

[Warning] The login output has been updated. Please be aware that it no longer displays the full list of available subscriptions by default.

C:\Users\Dell>cd desktop
C:\Users\Dell\Desktop>mkdir lab02
C:\Users\Dell\Desktop>cd lab02
C:\Users\Dell\Desktop\lab02>notepad lab02.tf
C:\Users\Dell\Desktop\lab02>
```

```
lab02.tf - Notepad
File Edit Format View Help
provider "azurerm" {
  features {}
  subscription_id = "aa8e2ee3-febb-442f-8360-c2f40ff36ef2"
}

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_subnet1_nsg_assoc" {
  subnet_id                 = azurerm_subnet.lab02_subnet1.id
  network_security_group_id = azurerm_network_security_group.lab02_nsg1.id
}
```

Ln 3, Col 58 80% Windows (CTRL)

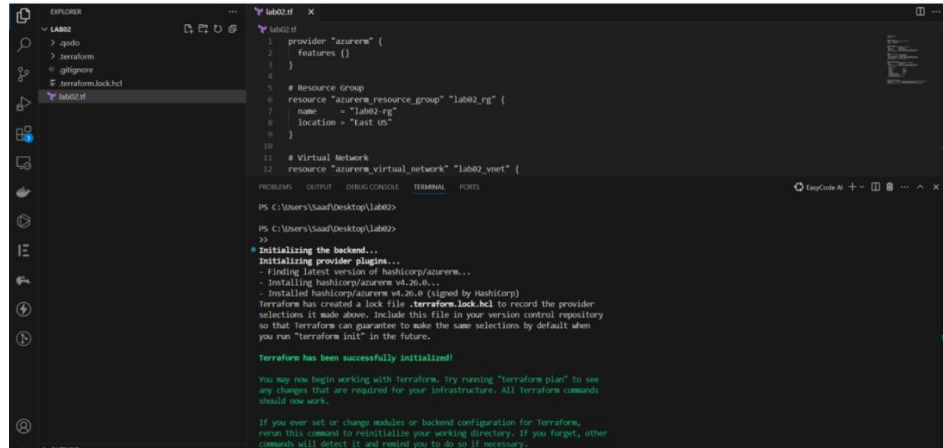
```
C:\Windows\system32\cmd.exe
C:\Users\Dell>cd desktop
C:\Users\Dell\Desktop>mkdir lab02
C:\Users\Dell\Desktop>cd lab02
C:\Users\Dell\Desktop\lab02>notepad lab02.tf
C:\Users\Dell\Desktop\lab02>terraform init
Initializing the backend...
Initializing provider plugins...
- Finding latest version of hashicorp/azurerm...
- 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:\Users\Dell\Desktop\lab02>
```

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> terraform init

Initializing the backend...
Initializing provider plugins...
- Finding latest version of hashicorp/azurerm...
- Installing hashicorp/azurerm v1.26.0...
- Installed hashicorp/azurerm v1.26.0 (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"
+ }
```

