Lab 10: Terraform Outputs – Printing Virtual Machine IPs and Resource Information

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Level: Beginner
Platform: Ubuntu Linux + Microsoft Azure
Prerequisite: Lab 1 to Lab 9

Learning Objective

Participants will learn how to:

- Understand Terraform outputs
- Create output variables
- Print resource information
- Print Virtual Machine IP addresses
- Use outputs for automation and integration

Learning Outcome

After completing this lab, participants will be able to:

- Display resource details using Terraform
- Extract infrastructure information
- Use outputs in real projects and pipelines

Hands-On Lab

Step 1: Go to Terraform Directory

```
cd terraform-azure-lab
```

Step 2: Create Output File

```
touch outputs.tf
```

Step 3: Open File

```
nano outputs.tf
```

Step 4: Add Output Definitions

```
output "resource_group_name" {
  value = azurerm_resource_group.rg.name
}

output "virtual_network_name" {
  value = azurerm_virtual_network.vnet.name
}

output "subnet_name" {
  value = azurerm_subnet.subnet.name
}

output "network_security_group_name" {
  value = azurerm_network_security_group.nsg.name
}

output "public_ip" {
  value = azurerm_public_ip.pip.ip_address
}

output "network_interface_name" {
  value = azurerm_network_interface.nic.name
}

output "vm_name" {
  value = azurerm_linux_virtual_machine.vm.name
}

output "vm_private_ip" {
  value = azurerm_network_interface.nic.private_ip_address
```

```
}

output "vm_public_ip" {
  value = azurerm_public_ip.pip.ip_address
}
```

Step 5: Initialize Terraform

```
terraform init
```

Step 6: Apply Configuration

```
terraform apply
```

Type:

```
yes
```

Step 7: View Outputs

```
terraform output
```

Step 8: View Specific Output

```
terraform output vm_public_ip
```

Step 9: Cleanup

```
terraform destroy
```

Type:

```
yes
```