

Lab 04: Working with Variables and Provider Version Constraints

Objective

In this lab, you will:

- Manually create a resource group using `az group create`.
 - Define two independent Azure resources in Terraform.
 - Pass all arguments using **variables**.
 - One variable will have a **default value**.
 - One will be passed via `terraform.tfvars`.
 - One will be **prompted interactively**.
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Folder Naming Convention

Use:

```
terraform-lab-04-variables-provider-version
```

Prerequisites

1. **Azure CLI installed and authenticated**
 2. **Terraform installed**
 3. **Manual Resource Group Creation**
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Steps

1. Create the Resource Group Manually

```
az group create --name rg-<yourname>-qe-lab-04 --location eastus
```

Replace `<yourname>` with your name.

2. Create the Folder and Files in VS Code

- **Folder:** `terraform-lab-04-variables-provider-version`
- **Files to create:**

- `main.tf`
 - `variables.tf`
 - `terraform.tfvars`
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3. main.tf Contents (Overview)

Key features:

- Enforces `azurerm` provider version > 4.26.0
 - Create Azure Log Analytics and Azure Public IP
 - All arguments passed via variables
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4. variables.tf Expectations

- Variable 1: `resource_group_name` → Set via `terraform.tfvars`
 - Variable 2: `location` → Set with a **default value (eg: eastus)**
 - Variable 3: `sku_name` (for Log Analytics Workspace) → Prompted interactively
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5. What to Do

1. Write the Terraform code to:
 - Create a **Log Analytics Workspace**
 - Create a **Public IP Address**
 - Use only variables for every argument (no hardcoded values)
2. Use:
 - Default value for `location` (e.g., `eastus`)
 - `.tfvars` for `resource_group_name`
 - Interactive prompt for something like `sku_name`
3. Run the following commands in sequence:

```
terraform init
terraform validate
terraform plan
terraform apply
```

4. Confirm resources in the Azure Portal under the resource group.
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Deliverables

- `main.tf`, `variables.tf`, `terraform.tfvars`
- Successful deployment of **two independent Azure resources**
- Verified use of all three variable sources (default, tfvars, and interactive prompt)