

**School of Computer Science**  
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**System Monitoring And  
Configuration Management**

**Lab File**  
**(2023-2024)**  
**for**  
**6<sup>th</sup> Semester**

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## LAB EXERCISE 6

**Aim:** Terraform Multiple tfvars Files Objective:

Step 1: Create a main.tf file

A screenshot of a code editor interface. At the top, there are four tabs: 'main.tf' (selected), 'variables.tf', 'dev.tfvars', and 'prod.tfvars'. Below the tabs, the text 'LAB\_6 > main.tf' is displayed. A lightbulb icon with the text 'Click here to ask Blackbox to help you code faster' is visible. The code in the editor is as follows:

```
1 provider "aws" {  
2     region = var.region  
3     access_key = "AKIA2UC27CLCKNWKFS6N"  
4     secret_key = "f5AEpq0QFLngq+WzxzMfLL3aS5VpsH2FQ6iGGxRo"  
5 }  
6  
7 resource "aws_instance" "Example"{  
8     ami = var.ami  
9     instance_type =var.instance_type  
10 }  
11 |
```

Step 2: Create a variable.tf file

```
main.tf • variables.tf × dev.tfvars • prod.tfvars
LAB_6 > variables.tf
  Click here to ask Blackbox to help you code faster
1  variable "region" {
2      description = "AWS region"
3      default = "us-west-2"
4  }
5
6  variable "ami" {
7      description = "AMI ID"
8      default = "ami-008fe2fc65df48dac"
9  }
10 variable "instance_type" {
11     description = "EC2 Instance type"
12     default = "t2.micro"
13 }
```

Step 3: Create Multiple tfvars Files:

dev.tfvars

```
main.tf • variables.tf dev.tfvars • prod.tfvars
LAB_6 > dev.tfvars
  Click here to ask Blackbox to help you code faster
1  region = "us-west-2"
2  ami = "ami-01e82af4e524a0aa3"
3  instance_type = "t2.micro"
4
```

prod.tfvars

```
main.tf • variables.tf dev.tfvars • prod.tfvars ×
LAB_6 > prod.tfvars
  Click here to ask Blackbox to help you code faster
1  region = "us-east-1"
2  ami = "ami-00d990e7e5ece7974"
3  instance_type = "t2.large"
```

## Step 4: Now initializes

```
● PrakharGupta@192 LAB_6 % terraform init

Initializing the backend...

Initializing provider plugins...

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.
```

## Step 5: Apply for Dev Environment

```
● PrakharGupta@192 LAB_6 % terraform apply -var-file=dev.tfvars

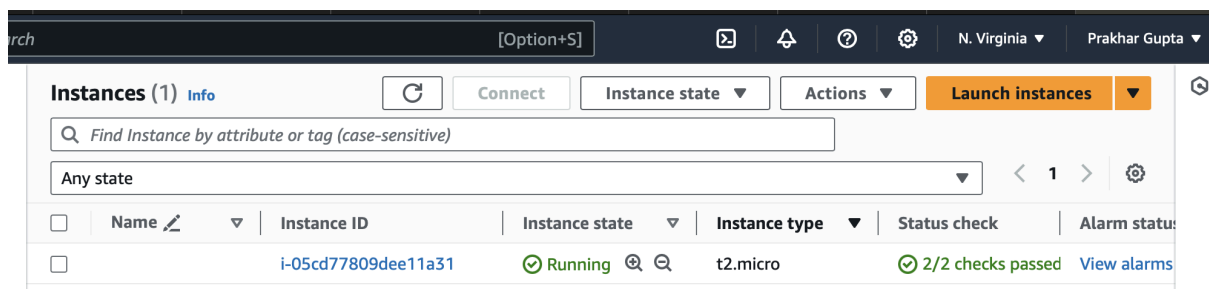
No changes. Your infrastructure matches the configuration.

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

```
● PrakharGupta@192 LAB_6 % terraform apply -var-file=prod.tfvars

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.
```



The screenshot shows the AWS Management Console interface for EC2 instances. At the top, there's a navigation bar with the user's name 'Prakhar Gupta' and the region 'N. Virginia'. Below the navigation bar, the 'Instances (1)' section is active, displaying a table with one instance. The instance has the ID 'i-05cd77809dee11a31', is in a 'Running' state, and has a 't2.micro' instance type. The status check shows '2/2 checks passed'. The table has columns for Name, Instance ID, Instance state, Instance type, Status check, and Alarm status.

	Name	Instance ID	Instance state	Instance type	Status check	Alarm status
<input type="checkbox"/>		i-05cd77809dee11a31	Running	t2.micro	2/2 checks passed	<a href="#">View alarms</a>

## Step 6: Destroy Dev Environment

```
Apply complete! Resources: 0 added, 0 changed, 0 destroyed.
● PrakharGupta@192 LAB_6 % terraform destroy -var-file=dev.tfvars

No changes. No objects need to be destroyed.

Either you have not created any objects yet or the existing objects were already deleted outside of Terraform.

Destroy complete! Resources: 0 destroyed.
● PrakharGupta@192 LAB_6 % terraform destroy -var-file=prod.tfvars

No changes. No objects need to be destroyed.

Either you have not created any objects yet or the existing objects were already deleted outside of Terraform.
```