

# SPCM LAB-3

## Objective: Provisioning an EC2 Instance on AWS

- Create Terraform Configuration File for EC2 instance(instance.tf):

```
instance.tf ×
instance.tf > resource "aws_instance" "UPES1"
1  resource "aws_instance" "UPES1" {
2      ami            = "ami-03f4878755434977f"
3      instance_type = "t2.micro"
4      count          = 1
5      tags = {
6          Name = "My-ec2"
7      }
8  }
```

- Run the command “terraform plan” and review the plan to ensure it aligns with your expectations.

```
gauravbhandari@gauravs-MacBook-Air-2 aws-terraform-demo % terraform plan

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:

# aws_instance.UPES1[0] will be created
+ resource "aws_instance" "UPES1" {
+   ami            = "ami-03f4878755434977f"
+   ...            = (known after apply)
+   user_data_replace_on_change = false
+   vpc_security_group_ids      = (known after apply)
}

Plan: 1 to add, 0 to change, 0 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.
```

- Apply the changes to create the AWS resources terraform apply.Type yes when prompted.

```
gauravbhandari@gauravs-MacBook-Air-2 aws-terraform-demo % terraform apply --auto-approve

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:

# aws_instance.UPES1[0] will be created
+ resource "aws_instance" "UPES1" {
+   ami            = "ami-03f4878755434977f"
+   ...            = (known after apply)
+   user_data_replace_on_change = false
+   vpc_security_group_ids      = (known after apply)
}
```

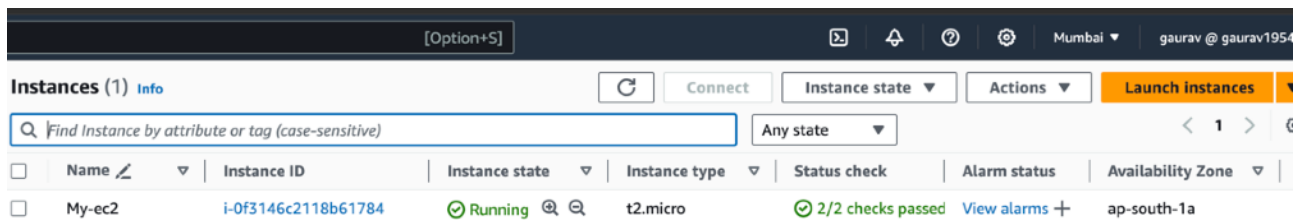
```

Plan: 1 to add, 0 to change, 0 to destroy.
aws_instance.UPES1[0]: Creating...
aws_instance.UPES1[0]: Still creating... [10s elapsed]
aws_instance.UPES1[0]: Still creating... [20s elapsed]
aws_instance.UPES1[0]: Still creating... [30s elapsed]
aws_instance.UPES1[0]: Creation complete after 34s [id=i-0f3146c2118b61784]

Apply complete! Resources: 1 added, 0 changed, 0 destroyed.

```

- After the terraform apply command completes, log in to your AWS Management Console and navigate to the EC2 dashboard. Verify that the EC2 instance has been created.



| Name   | Instance ID         | Instance state | Instance type | Status check      | Alarm status | Availability Zone |
|--------|---------------------|----------------|---------------|-------------------|--------------|-------------------|
| My-ec2 | i-0f3146c2118b61784 | Running        | t2.micro      | 2/2 checks passed | View alarms  | ap-south-1a       |

- When you are done experimenting, run the following command to destroy the created resources.

```

gauravbhandari@gauravs-MacBook-Air-2 aws-terraform-demo % terraform destroy --auto-approve
aws_instance.UPES1[0]: Refreshing state... [id=i-0f3146c2118b61784]

Terraform used the selected providers to generate the following execution plan. Resource actions are
symbols:
  - destroy

Terraform will perform the following actions:

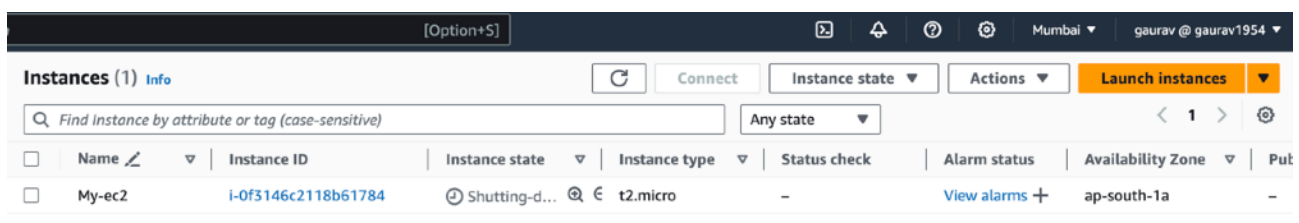
```

```

Plan: 0 to add, 0 to change, 1 to destroy.
aws_instance.UPES1[0]: Destroying... [id=i-0f3146c2118b61784]
aws_instance.UPES1[0]: Still destroying... [id=i-0f3146c2118b61784, 10s elapsed]
aws_instance.UPES1[0]: Still destroying... [id=i-0f3146c2118b61784, 20s elapsed]
aws_instance.UPES1[0]: Still destroying... [id=i-0f3146c2118b61784, 30s elapsed]
aws_instance.UPES1[0]: Destruction complete after 31s

Destroy complete! Resources: 1 destroyed.

```



| Name   | Instance ID         | Instance state | Instance type | Status check | Alarm status | Availability Zone |
|--------|---------------------|----------------|---------------|--------------|--------------|-------------------|
| My-ec2 | i-0f3146c2118b61784 | Shutting-down  | t2.micro      | -            | View alarms  | ap-south-1a       |