DOCUMENT #18.2

# TERRAFORM PRACTICAL SESSION


**TASK:**

- Write Terraform code to create 10 EC2 instances.

**ALGORITHM** (To Setup AWS CLI & Terraform)

- **Step1:** Create IAM user with Administrator access & generate access key & secret key
- **Step2:** Open command prompt/ Visual Studio. Copy AWS CLI package command for Windows & run it. This will download & install AWS CLI in your local machine.
  Download link (AWS CLI): msiexec.exe /i https://awscli.amazonaws.com/AWSCLIV2.msi
  Reference: https://docs.aws.amazon.com/cli/latest/userguide/getting-started-install.html

- **Step3:** Download Terraform for Windows, unzip & store it in "C:\Terraform" folder
- **Step4:** Set system environment variables for Terraform
  Edit system environment variables → Environment Variables → System variables: Path (double-click) → New → "C:\Terraform" → OK (3 times). Your system is now ready to run AWS CLI & Terraform commands.

**ALGORITHM** (To run Terraform commands)

- **Step1:** Open Visual studio & create a file "terraform.tf" & open terminal
- **Step2**: Define AWS version (in terraform.tf file)
- **Step3:** Define AWS region (in terraform.tf file)
- **Step4:** Write command to create EC2 instances. (in terraform.tf file)
- **Step5:** Run "terraform init" & "terraform apply" in terminal to initialize & create the infrastructure.

**Command to create EC2 instances**:

```
#STEP1: DEFINE AWS VERSION
terraform {
    required_providers {
        aws = {
            source = "hashicorp/aws"
            version = "~>4.0"
        }
    }
}

#STEP2: DEFINE AWS REGION
provider "aws" {
    region = "ap-south-1"
}

#STEP3: CREATE EC2 INSTANCE
resource "aws_instance" "server" {
    ami = "ami-0607784b46cbe5816"
    instance_type = "t2.micro"
    count = 10

    tags = {
        Name = "MyServer"
    }
}
```

**Terraform Commands**:

**terraform init**: to initialize terraform.

**terraform plan**: it will show what changes will be made.

**terraform apply**: to apply & create the infrastructure.

**terraform destroy**: to destroy the created infrastructure.