

# Source Code file for Automating Infrastructure using Terraform

## **1. For setting up Terraform use**

- `wget -O- https://apt.releases.hashicorp.com/gpg | sudo gpg --dearmor -o /usr/share/keyrings/hashicorp-archive-keyring.gpg`
- `echo "deb [signed-by=/usr/share/keyrings/hashicorp-archive-keyring.gpg] https://apt.releases.hashicorp.com $(lsb_release -cs) main" | sudo tee /etc/apt/sources.list.d/hashicorp.list`
- `sudo apt update && sudo apt install terraform`

## **2. Creds.tf**

```
provider "aws" {

    access_key = "ASIAQKTAFL33ART4SPPT"

    secret_key = "1AJn5B5ASwQ5wjB8f4VIsKNqH7fczhLmhxeW0eO8"

    token =
"FwoGZXIvYXZEM3////////wEaDC75ELLALv6CqWYs3CK8ATnTB1N2l15G1YyIQUsIDNtxaC5yFa
utclPGJyPQVdmvfHRjPPBFWB3X32l7sUUKB7nIRBY33CNWgoEU4NgnPiFZcAkK5GK206EDk7V2j2/
+rZGez4VOhTM8RpaOCihw5C/vSa6CpA/0AXjwN0SHE08O0+yvcr4l5BAAm/ACgxbko/HD7F/Hlgskn
siHTq468JHbU3yhhX/nOHYAgJYqP3JzQJlsrpA2i8eKCbuf4ju+sWYg+RAiHc1skhkFDKPUg+KYGMi11
LcwsZszcwRKuiKddCSiWzMuh38y4wIGl6vEsVIKAxxDHfjWxrvmcLC7zn0="

    region = "us-east-1"

}
```

## **3. Main.tf**

```
module "ec2_instance" {
    source = "terraform-aws-modules/ec2-instance/aws"

    name = "single-instance"
```

```
instance_type    = "t2.micro"
key_name         = "user1"
monitoring       = true
vpc_security_group_ids = ["sg-0adc5e9047a723bfd"]
subnet_id       = "subnet-07f78217c6c089d3c"

tags = {
  Terraform = "true"
  Environment = "dev"
}
}
```

4. **Now in order to download Jenkins I used following steps,**

i. Run the command to update all the packages.

**sudo yum update**

ii. Check if java is installed or not using the command

**java -version**

If java is not installed, install using the following command

**sudo yum install java-1.8.0-openjdk**

iii. Now, to download the latest Jenkins package

**sudo wget -O /etc/yum.repos.d/jenkins.repo https://pkg.jenkins.io/redhat/jenkins.repo**

iv. \*\*To enable the installation of the package, import the key file from Jenkins-CI:

**sudo rpm --import https://pkg.jenkins.io/redhat-stable/jenkins.io.key**

v. Install Jenkins on the EC2 instance

**sudo yum install jenkins**