Terraform Task

Task Description:

Launch Linux EC2 instances in two regions using a single Terraform file.

➔ Step 1: Launch EC2 instance and install aws cli.

```
ubuntu@ip-172-31-38-157:~$ sudo ./aws/install
You can now run: /usr/local/bin/aws --version
ubuntu@ip-172-31-38-157:~$ sudo ./aws/install
Found preexisting AWS CLI installation: /usr/local/aws-cli/v2/current. Please rerun install script with --update flag.
ubuntu@ip-172-31-38-157:~$ aws --version
aws-cli/2.28.21 Python/3.13.7 Linux/6.14.0-1011-aws exe/x86_64.ubuntu.24
```

➔ Step 2: Configure your aws to connect to your EC2.

```
ubuntu@ip-172-31-38-157:~$ aws configure
AWS Access Key ID [None]: AKIAXJPRNPRHWMQYCQ7C
AWS Secret Access Key [None]: nTt5GOGakLrrmvYsS9BOUjEKouIB74TN8CDvkxl1
Default region name [None]: ap-south-1
Default output format [None]: json
```

➔ Step 3: Generate SSH key for EC2 to login

```
ubuntu@ip-172-31-38-157:~$ ssh-keygen -t rsa -b 2048 -f ~/.ssh/id_rsa -N ""
Generating public/private rsa key pair.
Your identification has been saved in /home/ubuntu/.ssh/id_rsa
Your public key has been saved in /home/ubuntu/.ssh/id_rsa.pub
The key fingerprint is:
SHA256:msJ0D0/S+hLr4RGCGFFM8d8y/ZpxKIwV2UL/yd2J7pM ubuntu@ip-172-31-38-157
The key's randomart image is:
+---[RSA 2048]----+
|.++.  .          |
| ... . +         |
|.    . + o       |
| o . . * o o o . |
|. . o X S + o o  |
|   o *.& o .     |
|    + Oo= o ..   |
|     oo= = .E    |
|     .o.+    ..   |
+----[SHA256]-----+
```

➔ Step 4: Create a Terraform Project my making a multi-region directory and placing your instruction code into the main.tf file.

```
ubuntu@ip-172-31-38-157:~$ mkdir ~/terraform-multi-region && cd ~/terraform-multi-region
ubuntu@ip-172-31-38-157:~/terraform-multi-region$ nano main.tf
```

➔ Step 5: Initialize and Apply

```
Changes to Outputs:
  + mumbai_public_ip   = (known after apply)
  + virginia_public_ip = (known after apply)
aws_key_pair.kp: Creating...
aws_key_pair.kp: Creation complete after 0s [id=multi-region-key]
aws_instance.mumbai_ec2: Creating...
aws_key_pair.kp_us: Creating...
aws_key_pair.kp_us: Creation complete after 1s [id=multi-region-key]
aws_instance.virginia_ec2: Creating...
aws_instance.mumbai_ec2: Still creating... [10s elapsed]
aws_instance.virginia_ec2: Still creating... [10s elapsed]
aws_instance.virginia_ec2: Creation complete after 15s [id=i-04040e2bde3efdc79]
aws_instance.mumbai_ec2: Still creating... [20s elapsed]
aws_instance.mumbai_ec2: Still creating... [30s elapsed]
aws_instance.mumbai_ec2: Creation complete after 32s [id=i-0e7f845ece22b5638]

Apply complete! Resources: 4 added, 0 changed, 0 destroyed.

Outputs:

mumbai_public_ip = "13.233.168.171"
virginia_public_ip = "54.234.27.173"
```

➔ Check your EC2 instance are made or not.