**Terraform Task**

Write Terraform script to create highly available infrastructure in AWS. The infra should have1 vpc, 3 subnets setup in 3 different az and 2 instances setup in 2 different subnets

provider "aws" {

  region = "ap-south-1"

}

#Adding VPC

resource "aws\_vpc" "my\_vpc" {

    cidr\_block = "10.0.0.0/16"

}

#Adding 3 different subnets at 3 different AZ

resource "aws\_subnet" "subnet1" {

  vpc\_id = aws\_vpc.my\_vpc.id

  cidr\_block = "10.0.1.0/26"

  availability\_zone = "ap-south-1a"

}

resource "aws\_subnet" "subnet2" {

  vpc\_id = aws\_vpc.my\_vpc.id

  cidr\_block = "10.0.2.0/26"

  availability\_zone = "ap-south-1b"

}

resource "aws\_subnet" "subnet3" {

  vpc\_id = aws\_vpc.my\_vpc.id

  cidr\_block = "10.0.3.0/26"

  availability\_zone = "ap-south-1c"

}

resource "aws\_security\_group" "sg1" {

    name = "my-ec2-sg"

    description = "sg for my ec2"

    vpc\_id = aws\_vpc.my\_vpc.id

    ingress {

        from\_port = 22

        to\_port = 22

        protocol = "tcp"

        cidr\_blocks = ["0.0.0.0/0"]

    }

    egress {

        from\_port = 0

        to\_port = 0

        protocol = -1

        cidr\_blocks = ["0.0.0.0/0"]

    }

}

# Creating 2 EC2 with 2 different Subnets

resource "aws\_instance" "EC201" {

  ami = "ami-03f4878755434977f"

  instance\_type = "t2.micro"

  subnet\_id = aws\_subnet.subnet1.id

  vpc\_security\_group\_ids = [aws\_security\_group.sg1.id]

  #security\_groups = [aws\_security\_group.sg1.name]

  tags = {

    Name = "TF-instance1"

  }

}

resource "aws\_instance" "EC202" {

  ami = "ami-03f4878755434977f"

  instance\_type = "t2.micro"

  subnet\_id = aws\_subnet.subnet2.id

  vpc\_security\_group\_ids = [aws\_security\_group.sg1.id]

  #security\_groups = [aws\_security\_group.sg1.name]

  tags = {

    Name = "TF-instance2"

  }

}









