TERRAFORM ANSWERS

1. **WRITE A TERRAFORM CODE TO CREATE EC2 INSTANCE WITH THE BELOW REQUIREMENTS**
   a. **NAME : FLM-INSTANCE**
   b. **INSTANCE TYPE : 1CPU & 1GB RAM**
   c. **AZ : US-EAST-1A**
   d. **EBS SIZE : 12GB**
   e. **SECURITY GROUP : SSH & ALL TRAFFIC**

Ans:

main.tf:

```
provider "aws" {

      region = "ap-south-1"

}

resource "aws_instance" "two" {

      provider = "aws.south"

      ami = "ami-0607784b46cbe5816"

      instance_type = "t2.micro"

      availability_zone = “us-east-1a”

            vpc_security_group_ids = [aws_security_group.demo-sg.id]

      tags = {

          Name = "FLM-INSTANCE"

      }

      root_block_device {

      volume_size = 12

            }

}
```

security.tf:

```
resource "aws_security_group" "demo-sg" {
```

```
  name        = "my-tf-sg"
  description = "Security group allowing SSH and all traffic"

  ingress {
    from_port   = 22
    to_port     = 22
    protocol    = "tcp"
    cidr_blocks = ["0.0.0.0/0"]
  }

  ingress {
    from_port   = 0
    to_port     = 0
    protocol    = "-1"  # All traffic
    cidr_blocks = ["0.0.0.0/0"]
  }

  egress {
    from_port   = 0
    to_port     = 0
    protocol    = "-1"  # All traffic
    cidr_blocks = ["0.0.0.0/0"]
  }
}
```

2. WRITE A TERRAFORM CODE TO CREATE 2 INSTANCES ON 2 REGIONS (N.virginia & Mumbai)

```
provider "aws" {
    region = "us-east-1"
}
provider "aws" {
    region = "ap-south-1"
    alias = "south"
}
resource "aws_instance" "one" {
    ami = "ami-0715c1897453cabd1"
    instance_type = "t2.micro"
    tags = {
        Name = "web-server"
    }
}
resource "aws_instance" "two" {
    provider = "aws.south"
    ami = "ami-0607784b46cbe5816"
    instance_type = "t2.micro"
    tags = {
        Name = "web-server"
    }
}
```

3. WRITE A TERRAFORM CODE TO CREATE 5 IAM USERS AT A TIME.

```
resource “aws_iam_user” “myser” {
    count = length(var.user_name)
```

```
    name = var.user_name[count.index]
}
variable “user_name” {
    type = list(string)
    default = var.user_name[count.index]
}
```

4. WRITE A TERRAFORM CODE TO CREATE S3 BUCKET WITH ACL & VERSIONING.

```
resource "aws_s3_bucket" "one" {
  bucket = "my-bucket-name"
}

resource "aws_s3_bucket_ownership_controls" "two" {
  bucket = aws_s3_bucket.one.id
  rule {
    object_ownership = "BucketOwnerPreferred"
  }
}

resource "aws_s3_bucket_acl" "three" {
  depends_on = [aws_s3_bucket_ownership_controls.two]

  bucket = aws_s3_bucket.one.id
  acl    = "private"
}
```

```
resource "aws_s3_bucket_versioning" "three" {

bucket = aws_s3_bucket.one.id

versioning_configuration {

status = "Enabled"

}

}
```

5. WRITE A TERRAFORM CODE TO CREATE ELASTIC BLOCK STORAGE.

Ans:

```
resource "aws_ebs_volume" "example" {

  availability_zone = "us-west-2a"

  size              = 15

  tags = {

    Name = "Volume-1"

  }

}
```