Terraform AWS VPC

1) Creating Only VPC

vi test1.tf

```
provider "aws" {
  profile = "default"
  region  = "ap-south-1"
}
resource "aws_vpc" "vpc-1" {
        cidr_block           = "10.100.0.0/16"
        instance_tenancy  = "default"
 tags = {
   Name = "Mumbai-vpc1"
 }
}
```

2) Creating VPC and Internet Gateway and attaching it.

vi test2.tf

```
provider "aws" {
  profile = "default"
  region  = "ap-south-1"
}

resource "aws_vpc" "vpc-1" {
        cidr_block          = "10.100.0.0/16"
        instance_tenancy       = "default"
  tags = {
    Name = "Mumbai-vpc1"
  }
}

resource "aws_internet_gateway" "my-ig-1" {
  vpc_id = aws_vpc.vpc-1.id
  tags = {
    Name = "my-internetgateway1"
  }
}
```

3) Create VPC , Public Subnet, Private Subnet and Internet Gateway –And Attach IG to VPC

vi test3.tf

```
provider "aws" {
  profile = "default"
  region  = "ap-south-1"
}

resource "aws_vpc" "vpc-1" {
        cidr_block          = "10.100.0.0/16"
        instance_tenancy       = "default"
  tags = {
    Name = "Mumbai-vpc1"
  }
}

resource "aws_internet_gateway" "my-ig-1" {
  vpc_id = aws_vpc.vpc-1.id
  tags = {
    Name = "my-internetgateway1"
  }
}

resource "aws_subnet" "public_subnet" {
  vpc_id               = aws_vpc.vpc-1.id
  cidr_block           = "10.100.1.0/24"
  availability_zone      = "ap-south-1a"
  tags = {
```

```
    Name       = "mumbai-vpc-public-subnet"
    Environment = "Dev"
  }
}

resource "aws_subnet" "private_subnet" {
  vpc_id                = aws_vpc.vpc-1.id
  cidr_block            = "10.100.2.0/24"
  availability_zone     = "ap-south-1b"
  tags = {
    Name       = "mumbai-vpc-private-subnet"
    Environment = "Dev"
  }
}
```

4) Create VPC , Public Subnet, Private Subnet, Route table and Internet Gateway –And Attach IG to VPC ----------Full VPC Setup

vi test4.tf

```
/*==== Provider======*/

provider "aws" {
        profile         = "default"
         region         = "ap-south-1"
}

/*==== The VPC ======*/
resource "aws_vpc" "vpc-1" {
        cidr_block              = "10.100.0.0/16"
        instance_tenancy   = "default"
  tags = {
    Name = "Mumbai-vpc1"
  }
```

```
}
/*==== Internet gateway ======*/
resource "aws_internet_gateway" "my-ig-1" {
        vpc_id          = aws_vpc.vpc-1.id
 tags = {
   Name = "my-internetgateway1"
 }
}
/*==== Public Subnet ======*/
resource "aws_subnet" "public_subnet" {
        vpc_id                  = aws_vpc.vpc-1.id
         cidr_block              = "10.100.1.0/24"
        availability_zone      = "ap-south-1a"
 tags = {
   Name       = "mumbai-vpc1-public-subnet"
   Environment = "Dev"
 }
}
/*==== Private Subnet ======*/
resource "aws_subnet" "private_subnet" {
        vpc_id                = aws_vpc.vpc-1.id
         cidr_block            = "10.100.2.0/24"
         availability_zone      = "ap-south-1b"
 tags = {
   Name       = "mumbai-vpc1-private-subnet"
   Environment = "Dev"
 }
}
/*==== Route table ======*/
resource "aws_route_table" "public" {
          vpc_id        = aws_vpc.vpc-1.id
 tags = {
   Name       = "mumbai-vpc1-public-route-table"


 }
}
```

```
/*==== Adding routes to Route Table ======*/
resource "aws_route" "public_internet_gateway" {
        route_table_id              = aws_route_table.public.id
        destination_cidr_block    = "0.0.0.0/0"
        gateway_id                  = aws_internet_gateway.my-ig-1.id
}
/*===== Route table associations========== */
resource "aws_route_table_association" "public" {
        subnet_id     = aws_subnet.public_subnet.id
        route_table_id = aws_route_table.public.id
}
```