# * VPC by using Terraform *

1) Create VPC (my-vpc) cidr block = "10.0.0.0/16"

2) Public subnet (1) => cidr block = "10.0.1.0/24"

3) private subnet (2) => cidr block = "10.0.2.0/24"

```
Terraform {
required_Providers {
  aws = {
  source = "hashicorp/aws"
  version = "5.54.1"
  }
}
}

Provider "aws" {
  region = ~~"ap-south-1"~~ "eu-north-1"
  }
```

# Create a VPC

```
resource "aws_vpc" "my_vpc" {
  cidr_block = "10.0.0.0/16"
  tags = {
    Name = "my_VPC"
  }
}
```

# Create a subnet

# private subnet :-

```
resource "aws_subnet" "private-subnet" {
  cidr_block = "10.0.1.0/24"
  VPC_id = aws_vpc.my_vpc.id
  tags = {
    Name = "private-subnet"
  }
}
```

# public subnet

```
resource "aws_subnet" "public-subnet" {
  cidr_block = "10.0.2.0/24"
  vpc_id = aws_vpc.my_vpc.id
  tags = {
  Name = "public-subnw"
    }
}
```

# Internet getway

```
resource" aws_internet_getway" "my-igw"{
  VPC_id = " aws_vpc.my_vpc.id"
    tags = {
    Name = " my-igw"
      }
}
```

# Routing Table

```
resource " aws_route_table" "my-rt" {
 vpc_id = 'aws_vpc.my_vpc.id

 route = {
 cidr_block = " 0.0.0.0/0 "
 getway_id = " aws_internet_getway.my-igw.id

 }
}
```

```
resource " aws_route_teble_association" " public-subnet" {
route_teble_id = aws_route_teble.my-rt.id

 subnet_id = public.aws_subnet.public_subnet.id

}
```