

FIRST INSTALL TERRAFORM ON YOUR SYSTEM

```
sudo apt-get install unzip
wget https://releases.hashicorp.com/terraform/1.0.7/terraform_1.0.7_linux_amd64.zip
unzip terraform_1.0.7_linux_amd64.zip
sudo mv terraform /usr/local/bin/ AND AFTER INSTALLING AND HAVING TERRAFORM FILES RUN terraform init, ter
```

TERRAFORM FILES

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

#####NATGATEWAY IS NOT REQUIRED FOR THIS BECAUSE I AM ONLY EXPOSING IT TO PUBLIC SUBNET

This is vpc terraform file i.e vpc.tf

```
module "vpc" {
  source = "terraform-aws-modules/vpc/aws"
```

```
  name = "Kubemonitor-Vpc"
  cidr = "10.0.0.0/16"
```

```
  azs          = ["ap-south-1a"]
  public_subnets = ["10.0.1.0/24"]
```

```
  tags = {
```

```
    Server = "ansible_Kubemonitor_Prometheus_Grafana_server"
```

```
  }
}
```

```
resource "aws_internet_gateway" "Kubemonitor_gw" {
```

```
  vpc_id = module.vpc.vpc_id
  tags = {
```

```
    Server = "ansible_Kubemonitor_Prometheus_Grafana_server"
```

```
  }
```

```
}
```

```
resource "aws_route_table" "KubeMonitor_rt" {
```

```
  vpc_id = module.vpc.vpc_id
```

```
  route {
```

```
    cidr_block = module.vpc.public_subnets
    gateway_id = local
```

```
  }
```

```
}
```

#This is ec2_terraform file i.e ec2.tf

```
module "ec2_instance" {
  source = "terraform-aws-modules/ec2-instance/aws"

  name = "ansible_Kubemonitor_Prometheus_Grafana_server"

  instance_type = "t2.xlarge" => CPU AND RAM ARE REQUIRED MORE FOR KIND CLUSTER TO RUN WITH 3 WORKER N

  key_name = "ansible"

  tags = {

    Server = "ansible_Kubemonitor_Prometheus_Grafana_server"

  }

  vpc_id = module.vpc.vpc_id
}
```

THIS IS SECURITY FILE i.e security.tf

```
module "vote_service_sg" {
  source = "terraform-aws-modules/security-group/aws"

  name      = "KubeMonitor_Sg"
  description = "Security group for user"
  vpc_id    = module.vpc.vpc_id

  ingress_with_cidr_blocks = [
    {
      from_port = 9090
      to_port   = 9090
      protocol  = "tcp"
      description = "Prometheus-Port"
      cidr_blocks = "0.0.0.0/0"
    },

    {
      from_port = 3000
      to_port   = 3001
      protocol  = "tcp"
      description = "Grafana_Port and KubeMonitor_Port"
      cidr_blocks = "0.0.0.0/0"
    },

    {
      from_port = 80
      to_port   = 84
      protocol  = "tcp"
      description = "Application_Ports"
      cidr_blocks = "0.0.0.0/0"
    }
  ]
}
```