

## Terraform Task

Create a VPC with a public and private subnet, Internet Gateway and a default Route Table by using variable block

1. Create a VPC using VS code.

```
vpc.tf
1  /* #create vpc
2  resource "aws_vpc" "myvpc" {
3      cidr_block = "10.0.0.0/16"
4      tags = {
5          Name = "shank-tf-vpc"
6      }
7  }
8
9  #create pulic subnet
10 resource "aws_subnet" "PublicSubnet" {
11     vpc_id      = aws_vpc.myvpc.id
12     cidr_block = "10.0.1.0/24"
13     tags = {
14         Name = "Public-subnet"
15     }
16 }
17
18
19 #create private subnet
20 resource "aws_subnet" "PrivateSubnet" {
21     vpc_id      = aws_vpc.myvpc.id
22     cidr_block = "10.0.2.0/24"
23     tags = {
24         Name = "Private-Subnet"
25     }
26 }
27
28 #create IGW
29 resource "aws_internet_gateway" "igw" {
30     vpc_id = aws_vpc.myvpc.id
31 }
32
33 #create route table for public subnet
34 resource "aws_route_table" "PublicRT" {
35     vpc_id = aws_vpc.myvpc.id
36     route {
37         cidr_block = "0.0.0.0/0"
38         gateway_id = aws_internet_gateway.igw.id
39     }
40 }
41
42 #route table associated with public subnet
43 resource "aws_route_table_association" "PublicRTassociation" {
44     subnet_id      = aws_subnet.PublicSubnet.id
45     route_table_id = aws_route_table.PublicRT.id
46 } */
```

2. Make changes as per your requirement.
3. Like VPC name, cidr block .
4. After completing the code go to the ubuntu and apply following commands.

```
cd /mnt
```

```
ls
```

```
cd Shashank -> folder name
```

```
ls
```

```
cd terraform-task -> my terraform folder
```

```
ls -> my vpc files
```

```
terraform init
```

```
terraform plan
```

```
terraform graph
```

```
terraform fmt -> for indentation
```

```
terraform apply
```

The screenshot displays the AWS Management Console interface for a VPC. The top navigation bar shows the AWS logo, 'Services', a search bar, and the user's profile 'shank @ 3814-9221-8806'. The left sidebar lists various AWS services, with 'Virtual private cloud' expanded. The main content area shows the details for the VPC 'vpc-09e5cbbb5bcd8fa0e / shank-tf-vpc'. The 'Details' tab is active, displaying a table of VPC attributes. Below this, the 'Resource map' tab shows a visual representation of the VPC's resources, including subnets, route tables, and network connections.

| Details                                    |                       |
|--|-----------------------|
| VPC ID                                     | vpc-09e5cbbb5bcd8fa0e |
| Tenancy                                    | Default               |
| Default VPC                                | No                    |
| Network Address Usage metrics              | Disabled              |
| State                                      | Available             |
| DHCP option set                            | dopt-01de2ecfb57a0d54 |
| IPv4 CIDR                                  | 10.0.0.0/16           |
| Route 53 Resolver DNS Firewall rule groups | -                     |
| DNS hostnames                              | Disabled              |
| Main route table                           | rtb-0b005202a1c6cc749 |
| IPv6 pool                                  | -                     |
| Owner ID                                   | 381492218806          |
| DNS resolution                             | Enabled               |
| Main network ACL                           | acl-061c55fe588a5aa1c |
| IPv6 CIDR                                  | -                     |

**Resource map**

- VPC**: shank-tf-vpc
- Subnets (2)**: us-west-1a (Public-subnet, Private-Subnet)
- Route tables (2)**: rtb-0b005202a1c6cc749, rtb-0204623241441ee36
- Network connections (1)**: igw-0b7e9e71d82a0ca74