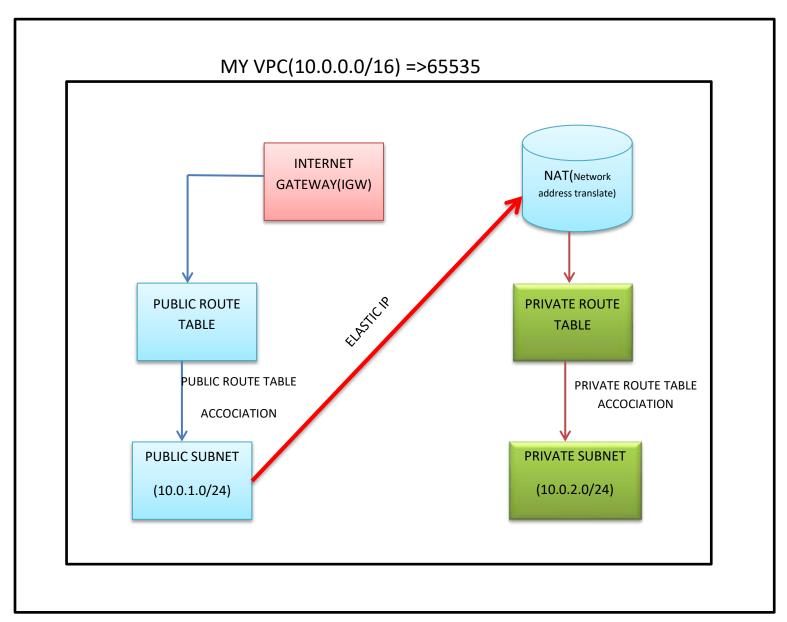
TERRAFORM

Terraform is a tool for building, changing and versioning infrastructure safely and efficiently.

Provider=aws



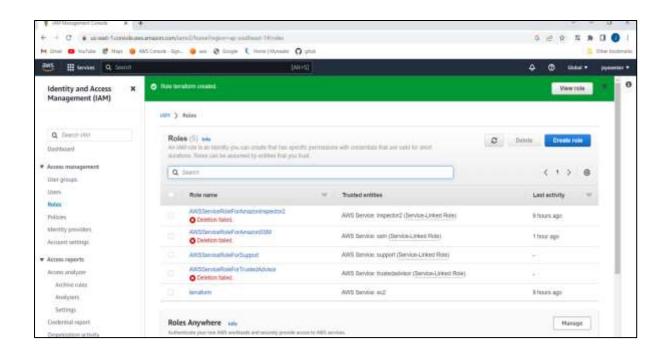
Steps Terraform

- 1.Provider
- 1.2. VPC
- 2.Public subnet
- 3. Private subnet
- 4.IGW
- 5. Public Route table
- 6. Public Routetable association
- 7.EIP
- 8.NAT
- 9. Private Route table
- 10.Private Route table association
- 11.Public sg
- 12.Private sg
- 13. Public instance
- 14.Private instance

Steps To Create Terraform

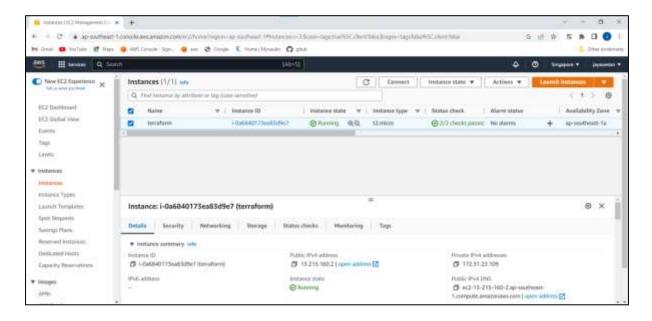
Step 1:Create Iam Role

IAM --->Create Role --->aws service --->ec2 service --->next --->policy(AdministratorAcces)--->next--->rolename(terraform)--->create role.



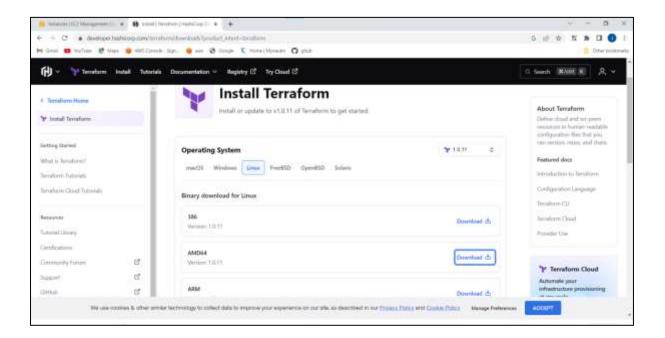
Step2:Create Ec2 Ubuntu Server

Version(18.04)---->key(.pem)---->security(all tcp)--->storage(30gb)--->advance(role attach) --->launch instance



Step3:Terraform Download

Google --->terraform.io---> Terraform by HashiCorp--->click right corner download--->operating system(linux)--->version(1.0.11)-->Amd 64--->download (right click copy)



Now server login and download terraform

Pem key convert ppk then--->Login server(Ubuntu) --->#sudo -i --

#wgwt terraform link

#wget https://releases.hashicorp.com/terraform/1.0.11/terraform_1.0.11_linux_amd64.zip

Now install unzip --->(because unzip is not default Ubuntu)

#apt-get install unzip

#unzip terraform_1.0.11_linux_amd64.zip

rm -rv terraform_1.0.11_linux_amd64.zip

#ll --->shown unzip terraform

Now terraform move /usr/local/bin/

#mv terraform /usr/local/bin/

#cd / usr/local/bin/

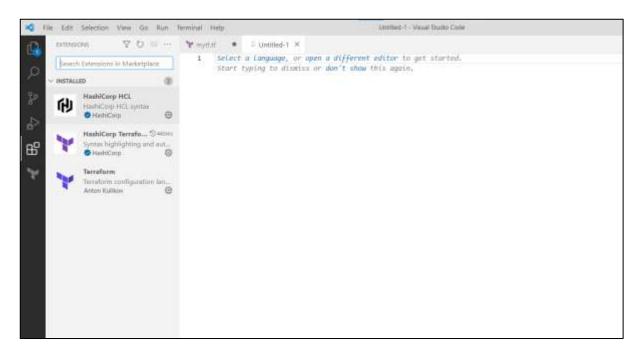
#ll --->shown terraform

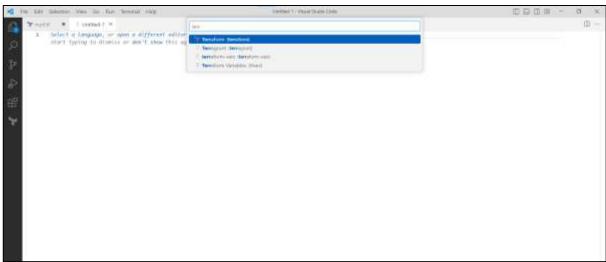
Terraform version check

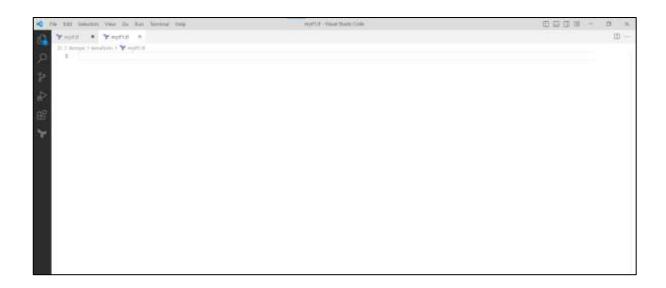
#terraform -version --->it will shown version

Step4:Create Code

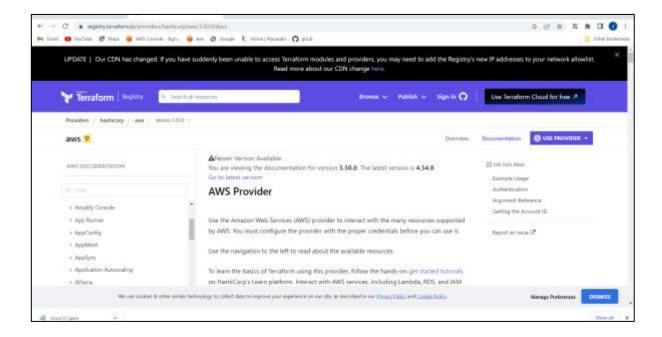
Download visual studio code --->file--->new file --->select language(terraform) -->suppose (can't show terraform, download harshicorp hcl and harsicorp terraform) --->save (ctrl +s)--->then write script







Which place to take code --->google --->terraform.io--->aws provider--->version select(3.50.0)



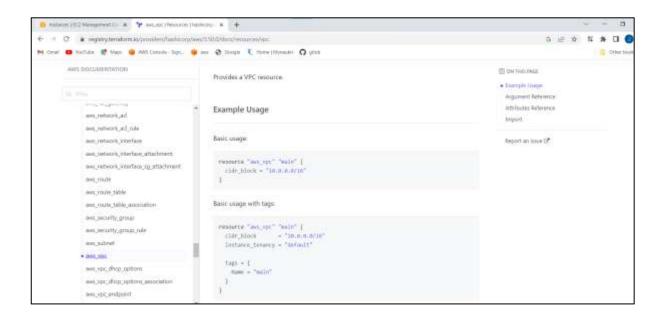
Step5:Write Code For Provider

Left side select aws provider --->copy code and put visual studio code -->



Step6: Write Code For vpc

Left side select vpc--->select aws vpc --->copy code and put visual studio code -->



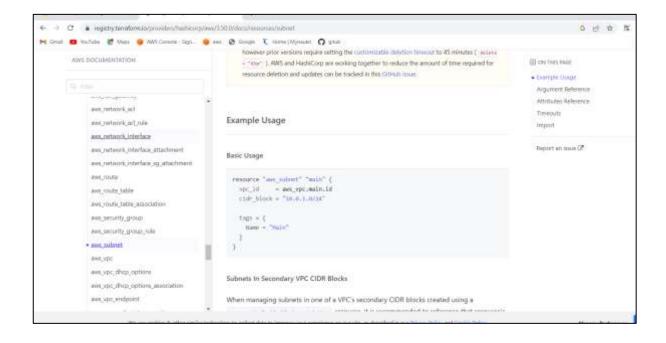
```
File Edit Selection View Go Run Terminal Help

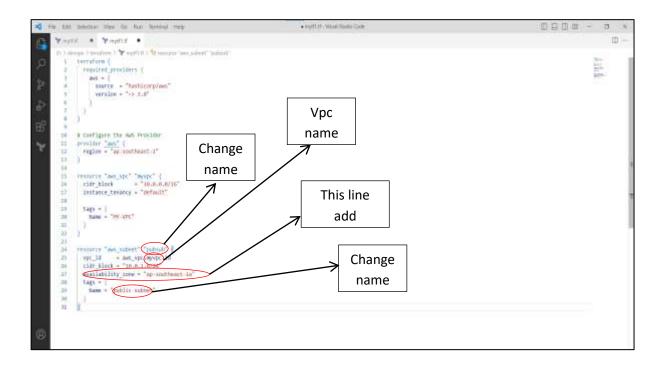
    mytf1.tf - Visual Studio Code

       myttit • myttitt •
        D: ≥ devops > terraform > 🔭 mytf1.tf > 😉 resource "aws_vpc" "myvpc
             terraform (
                 required_providers (
                 aws = (
source = "hashicorp/aws"
version = "-> 3.0"
                1
              # Configure the AWS Provider
         10
              provider "wws" (
region = "ap-southeast-1"
         13
         14
               resource "aws_vpc" "myvpc" |
         15
                 cidr_block
         16
                 instance_tenancy = "default"
                                                                                 Change name
         17
         18
         19
                 tags = {
   Name "MY-VPC"
         20
         21
```

Step7: Write Code For public Subnet

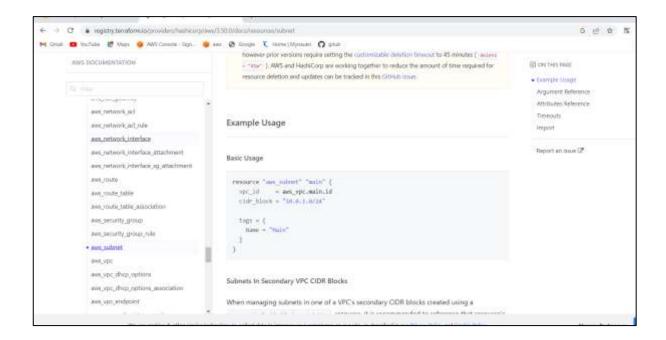
Left side select vpc--->aws subnet --->copy code and put visual studio code -->





Step8: Write Code For private Subnet

Left side select vpc--->aws subnet --->copy code and put visual studio code -->

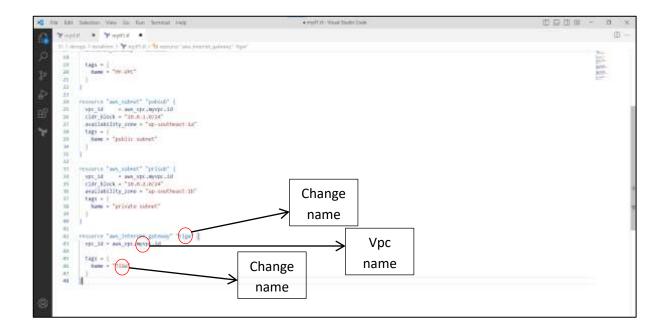


```
| The part | The registrate | The regist
```

Step9: Write Code For Internet Gateway

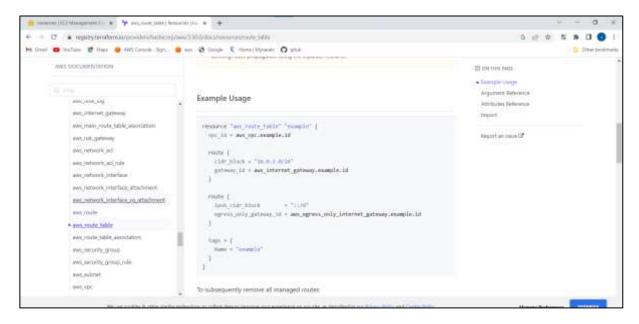
Left side select vpc--->aws internet gateway --->copy code and put visual studio code -->

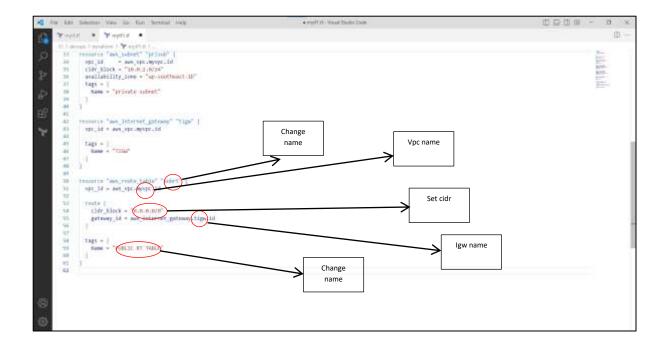




Step 10: Write Code For Public Route Table

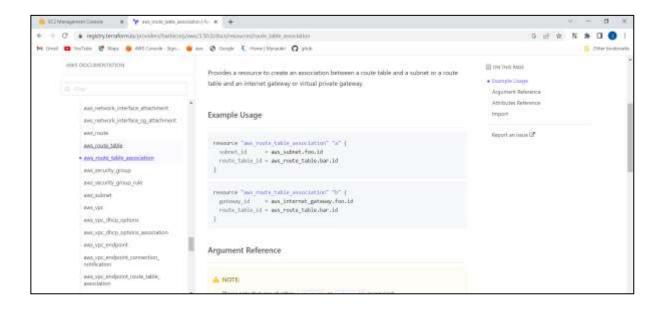
Left side select vpc--->aws route table --->copy code and put visual studio code -->

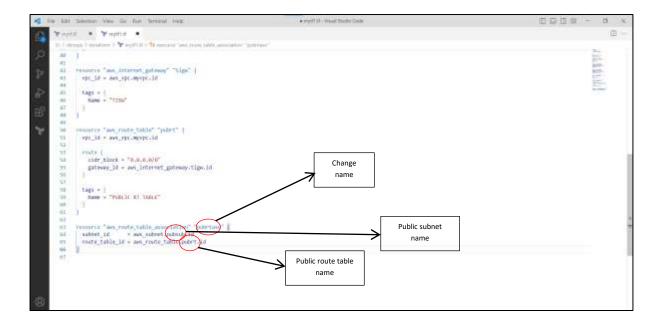




Step11: Write Code For Public Route Table Association

Left side select vpc--->aws route table Association --->copy code and put visual studio code -->

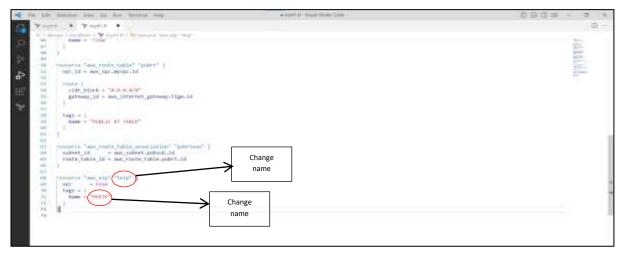




Step12: Write Code For Elastic Ip

Left side select ec2--->aws elastic ip --->copy code and put visual studio code -->

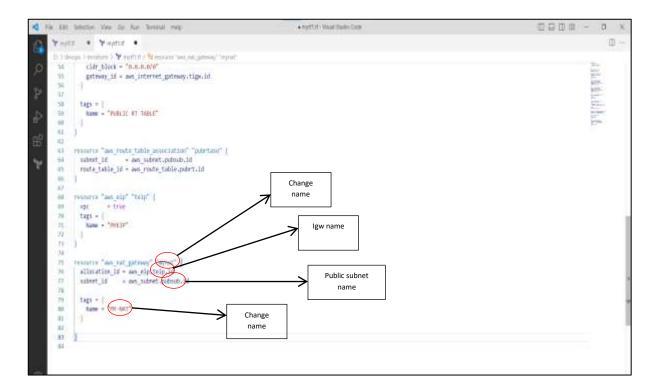




Step13: Write Code For Nat Gatway

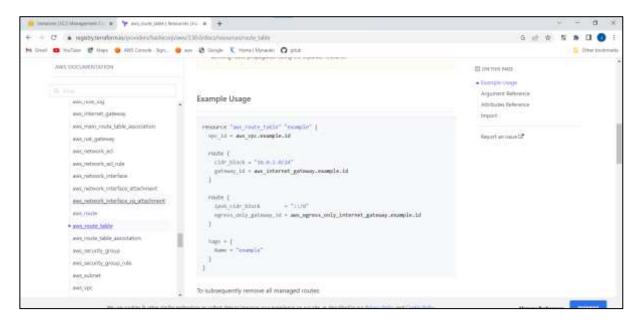
Left side select vpc--->aws nat gateway --->copy code and put visual studio code -->

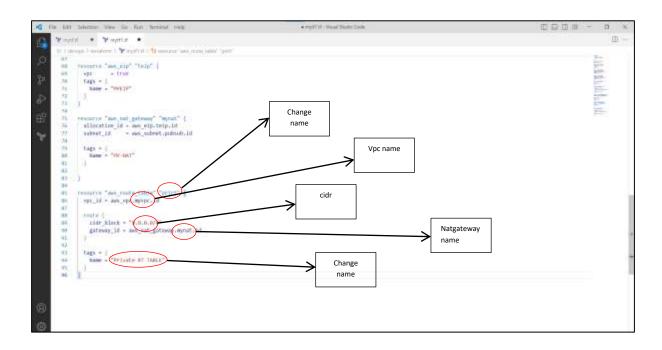




Step14: Write Code For Private Route Table

Left side select vpc--->aws route table --->copy code and put visual studio code -->

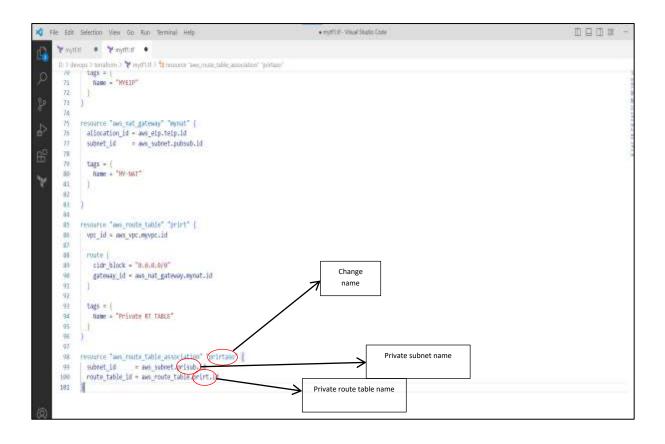




Step15: Write Code For Private Route Table Association

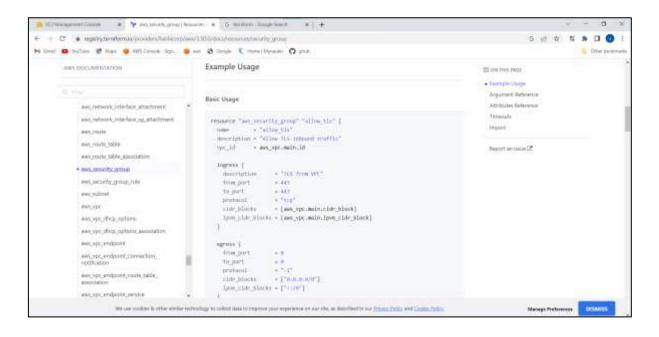
Left side select vpc--->aws route table Association --->copy code and put visual studio code -->

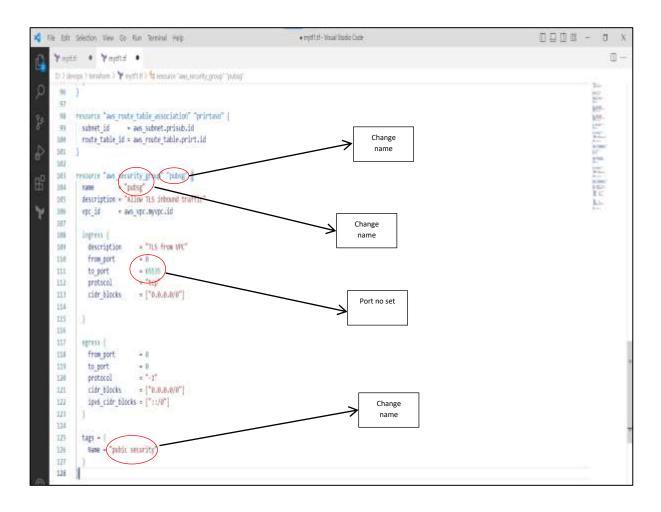




Step16: Write Code For public security

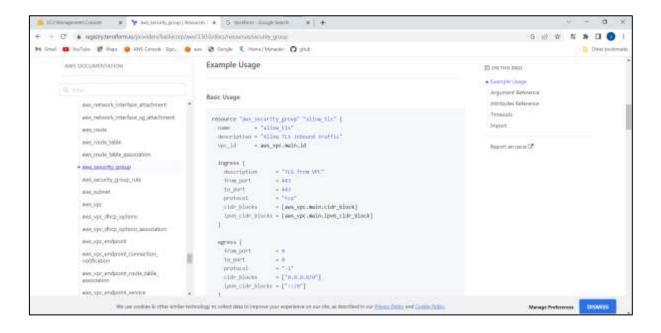
Left side select vpc---> aws security--->copy code and put visual studio code -->

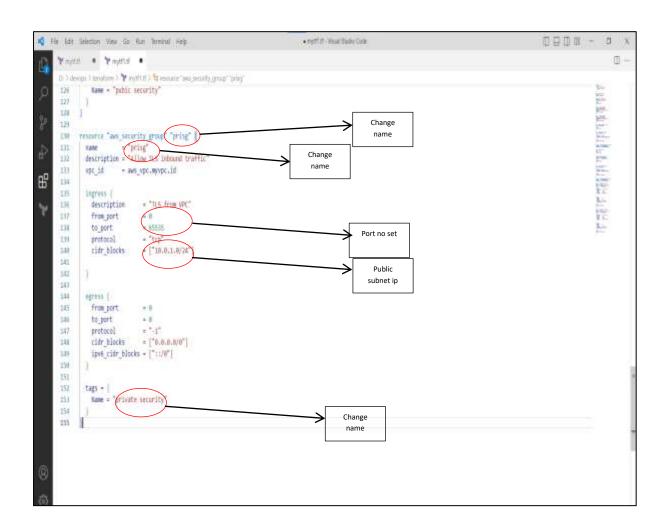




Step17: Write Code For private security

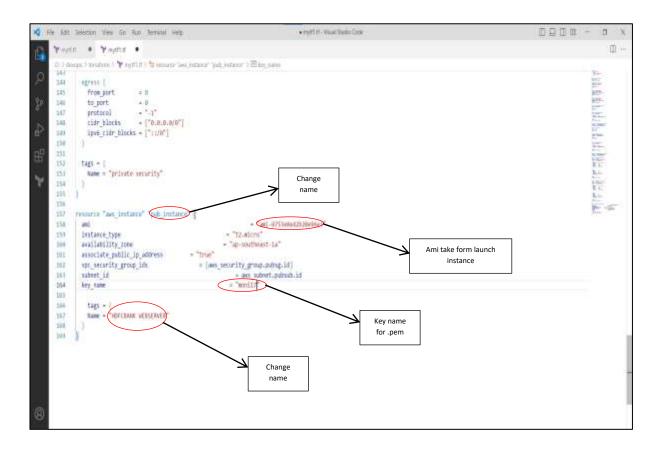
Left side select vpc---> aws security--->copy code and put visual studio code -->





Step18: Write Code For public ec2 insance

This code sepate copy



Step19: Write Code For private ec2 insance

This code sepate copy

Same chamges for public instance

```
| The part | The part
```

Step20:copy full code and put server

#cd /usr/local/bin

#vi myterraform.tf --->put code and save :wq!

```
Description

Stages

Martiplian

For John

For
```

Now initializing,

#terraform init

```
rockEip-172-11-13-100:-# mid /unr/local/min totals.com/local/min totals.
```

Now terrafoem plan

#terraform plan

```
Section process and process and process of the section of the section process and process of the section process and process of the section process and process of the section process
```

Now apply terraform

#terraform apply ---->enter value:yes---->vpc,subnt,rt table.ec2 server,eip,nat,igw are create

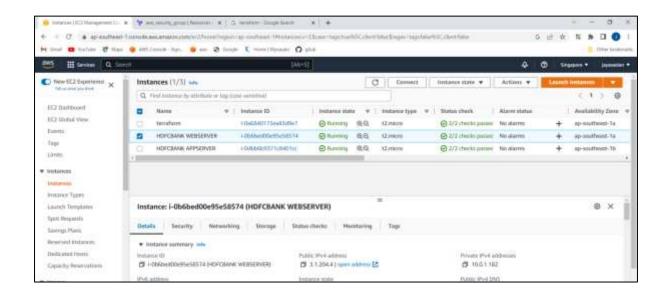
```
South 1/231-21-000 Author/Other

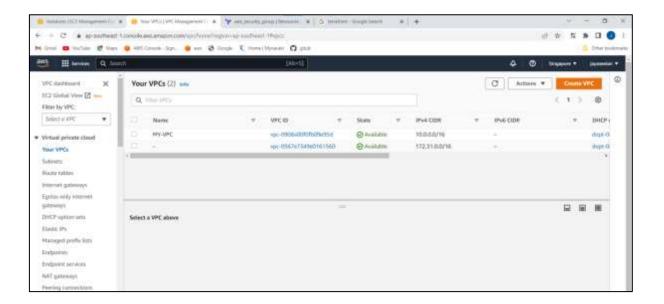
Total Type | will be scripted to appears.

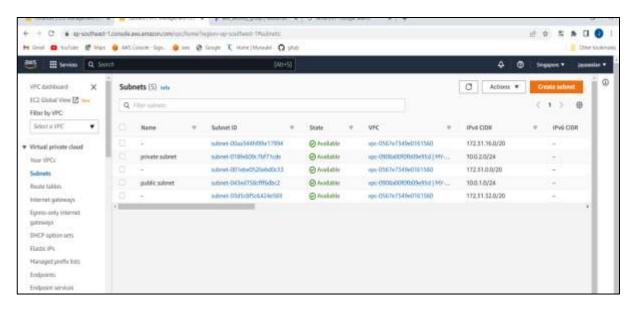
Sater a value; yes

Sater a va
```

All are created.







Step21:Now Connected Public Instance

#vi mumbaikey --->put .pem

```
*** Comparison of the Comparis
```

chmod 400 mumbaikey

#ssh -i mumbaikey ec2-user@3.1.204.4 --->yes

Open public server

```
### ec2-user@ip-10-0-1-182:~

root@ip-172-31-23-109:/usr/local/bin# chmod 400 mumbaikey

root@ip-172-31-23-109:/usr/local/bin# ssh -1 mumbaike
```

Now check internet

#ping google.com

Packets show so internet is working..

Step22:Now Connected Private Instance

```
#vi mumbaikey --->put .pem
# chmod 400 mumbaikey
#ssh -i mumbaikey ec2-user@10.0.2.144 --->yes
Open private server
Check internt --->ping google.com
```

```
### A bytes from sd-in-filo.1e10.net (142.251.10.100); corp.sept1 tile104 time=1.46 ms
44 bytes from sd-in-filo.1e100.net (142.251.10.100); corp.sept2 tile104 time=1.50 ms
44 bytes from sd-in-filo.1e100.net (142.251.10.100); corp.sept2 tile104 time=1.50 ms
44 bytes from sd-in-filo.1e100.net (142.251.10.100); corp.sept2 tile104 time=1.50 ms
44 bytes from sd-in-filo.1e100.net (142.251.10.100); corp.sept2 tile104 time=1.50 ms
44 bytes from sd-in-filo.1e100.net (142.251.10.100); corp.sept2 tile104 time=1.50 ms
45 bytes from sd-in-filo.1e100.net (142.251.10.100); corp.sept2 tile104 time=1.50 ms
46 bytes from sd-in-filo.1e100.net (142.251.10.100); corp.sept2 tile104 time=1.50 ms
47 packets transmitted, 7 ecosived, 0% packet loss, time 6010ms
48 rtt min/avg/max/makev = 1.4852/1.506/1.540/0.046 ms
49 packets transmitted, 7 ecosived, 0% packet loss, time 6010ms
49 packets transmitted, 7 ecosived, 0% packet loss, time 6010ms
40 packets transmitted, 7 ecosived, 0% packet loss, time 6010ms
40 packets transmitted, 7 ecosived, 0% packet loss, time 6010ms
41 packets transmitted, 7 ecosived, 0% packet loss, time 6010ms
42 packets transmitted, 7 ecosived, 0% packet loss, time 6010ms
43 packets transmitted, 7 ecosived, 0% packet loss, time 6010ms
44 packets transmitted, 0% packet loss, time 6010ms
45 packets transmitted, 0% packet loss, time 6010ms
46 bytes from sd-in-filo.1e10.net 10% packet loss, time 5000ms
47 packets transmitted, 0% packet loss, time 5000ms
48 bytes from sd-in-filo.1e10.net (172.277.184.101); comp secpt tile100 time=2.74 ms
48 bytes from sd-in-filo.1e10.net (172.277.184.101); comp secpt tile100 time=2.39 ms
48 bytes from sd-in-filo.1e10.net (172.277.184.101); comp secpt tile100 time=2.39 ms
48 bytes from sd-in-filo.1e10.net (172.277.184.101); comp secpt tile100 time=2.39 ms
48 bytes from sd-in-filo.1e10.net (172.277.184.101); comp secpt tile100 time=2.39 ms
48 bytes from sd-in-filo.1e10.net (172.277.184.101); comp secpt tile100 time=2.39 ms
49 packets transmitted, 6 zecolved, 0% packet loss, time 5007ms
40 p
```

Step23:Delete All

#exit

#exit

#erroform destroy --->yes

```
Constitution of the content of the c
```

After destroy iam role delete.