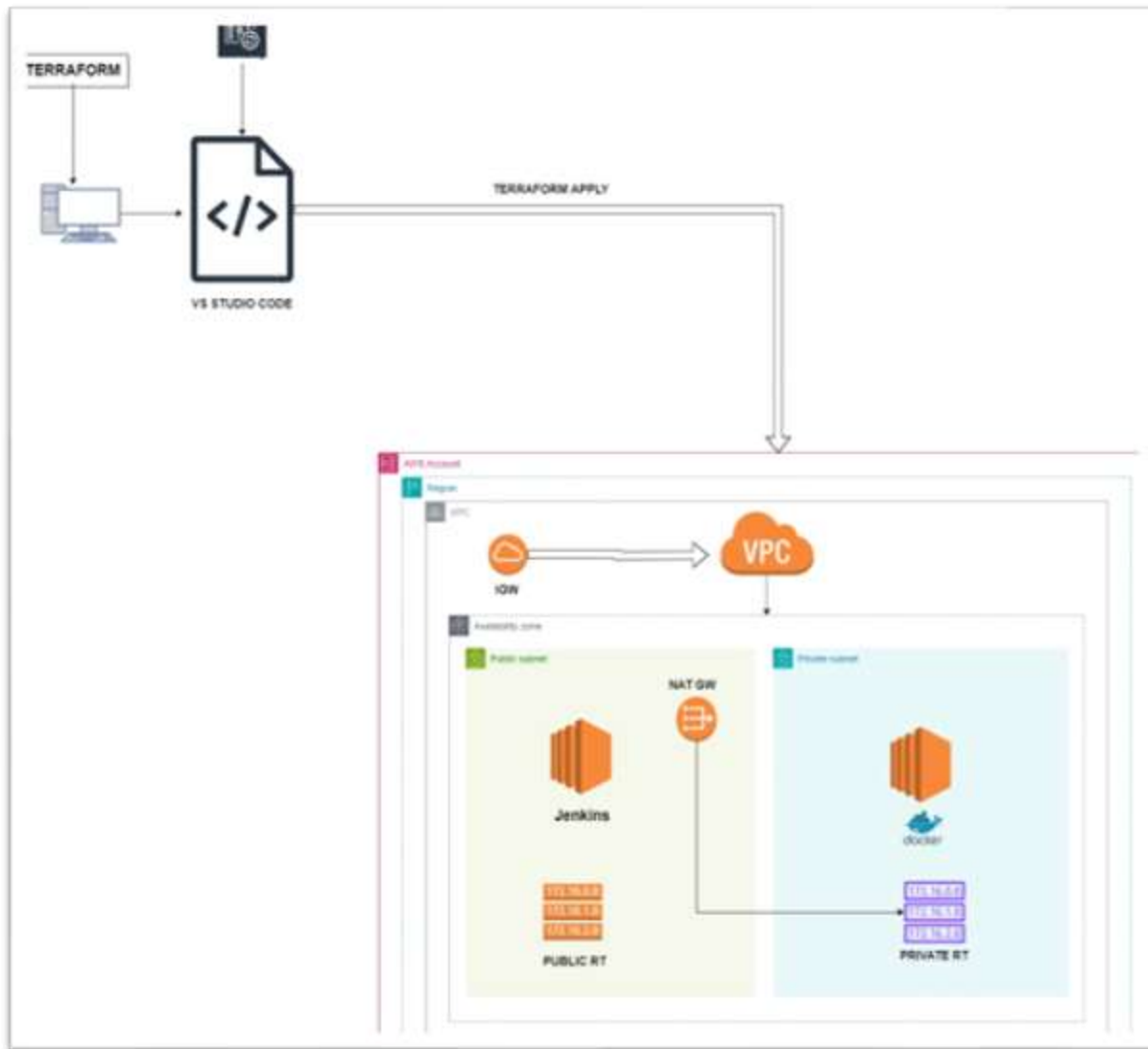


CREATING RESOURCES BY USING TERRAFORM



AIM :- Create VPC, Public and private subnets, launch an Jenkins Ec2 in public subnet and docker in private Ec2 along with security groups allowing port 22 and port 8080 named as Jenkins-SG and allowing port 22 and 80 as Docker-SG(Note: create and initialize a terraform file in our laptop by using VS Code Software)

RESOURCES USED :- VS Code , AWS Configure, Terraform

Procedure :-

1. Download and install VS Code software in our device
2. Download and install AWS Cli in our device
3. Now create One IAM User assign full administrator access policy and Generate Access and Secret access keys to respective user
4. Now open VS code and go to extensions section and search terraform, we will get HarshiCOP Terraform extension click and install it, now again search for AWS Cli extension and install it.
5. Open Terminal in VS code which is located at top, and give command “aws configure” and give access and secret access keys which we created earlier.
6. Now go to browser and search for terraform and select harshi corp’s terraform and install 64 bit for windows
7. After Download click on extract and copy the path
8. Now we have to give environment variables to terraform
9. Click on windows button and search environment variables and we will get user variables and system variables.
10. In system variables select “path” and click on edit and click on new and paste the path of terraform which we copied earlier, click on ok and close it.
11. Now run the command terraform –version to check whether terraform is running or not if running we will get version.
12. Now create three files three files
 - A. **Variables.tf** file --- here we have to define our variables like instance type, ami, etc.. so that we call this variables by using var.<variable name>.id in main.tf file, so that we no need to give again in main.tf file
 - B. **Terraform.tfvars** --- this file holds data of variables, in simple words in variables.tf file we are just creating variables here we are assign the data to respective variables.
 - C. **Main.tf** --- This will hold the Infrastructure details (we can mention providers section in this main file or we can create separately)
13. The code of above three files was in my Git Hub, fork that repo to your repo if you want

<https://github.com/karthikvarma2172/MyProjects.git>

14. After creating the files go to terminal and run following commands

terraform init ----- initializing terraform

terraform validate ----- it will check our code and if there is any error it will show error location too

#**terraform plan** ----- It will create a plan to our resources which we defined in main.tf file (plan means it will automatically arrange the resources in required order and it will display the plan in terminal)

#**terraform apply** ----- it will start creating resources in our account

15. For verification login to our account and check the resources which we mentioned in main.tf file we will see the resources created by terraform automatically
16. If we want to delete resources which we created now then run the following command in VS code terminal so that everything which created now will be deleted

terraform destroy