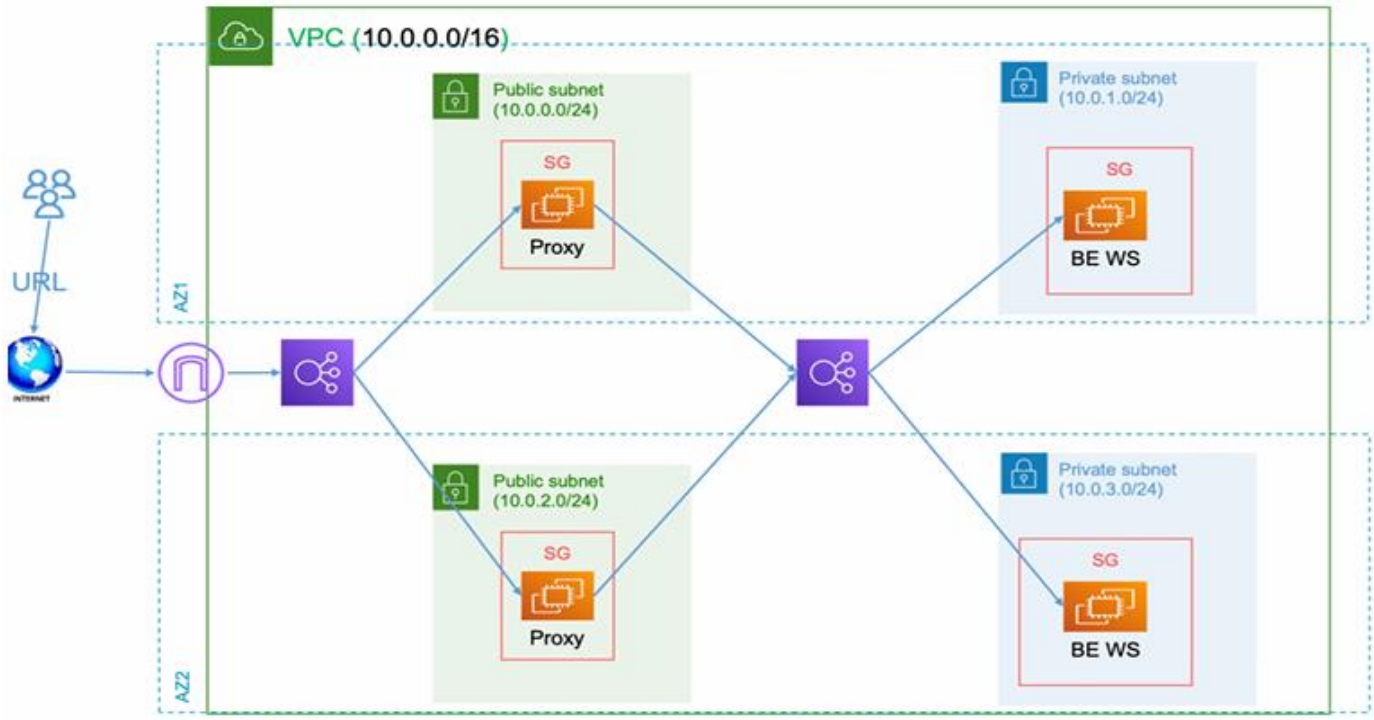
Project:

"Secure Web App with Public Proxy + Private Backend on AWS using Terraform"



Project Description:

A VPC consists of:

- 2 Public Subnets → Containing EC2 Instances acting as Nginx Reverse Proxy.
- 2 Private Subnets → Containing EC2 Instances acting as Web Application Backends (e.g., Flask/Node.js).
- NAT Gateway + Internet Gateway.
- 2 Load Balancers:
  - Public ALB → Directs traffic to proxies.
  - Internal ALB → Directs traffic from proxies to backend servers.

Technical notes:

1. Don’t work on the default Workspace Create a new workspace called dev
2. remote bucket for statefile
3. Using custom not public modules to implement the below diagram:
   - Each module has: main.tf, variables.tf, outputs.tf
4. Use remote provisioner to install apache or proxy in machines
5. Use local-exec to print all the ips to a file called all-ips.txt with format

   public-ip1 1.1.1.1

   public-ip2 2.2.2.2
6. Use file provisioner to copy Web Application Backend files from your local machine to private remote EC2 instances
7. Use the data source to get the image id for ec2

Project delivery method

➢ Documentation contains screenshots from:

- creating and working on workspace dev
- The configuration of the proxy
- The public DNS of the load balancer when you send a traffic to it from a browser and it returns the content of the private ec2s
- The s3 that contain the state file

➢ On GitHub:

- Repo URL
- README.md file
- The code is in an organized manner.