**JOURNEY LOG**

1. Task 1: Terraform – Establishing the Outpost
2. Created user Terraform belonging to admin group and generated access and secret keys.
3. Installed awscli on device.
4. Configured profile for terraform user (aws configure - -profile terraform)
5. Terraform Activities:

* Executed “terraform init”
* Created the following in the order in which they are mentioned: provider.tf, vpc.tf, subnet.tf, internet-gateway.tf, eips.tf, nat-gateway.tf, routing-tables.tf, route-table-association.tf, eks.tf, eks-node-groups.tf
* Executed “terraform fmt”, “terraform plan” and “terraform apply” (I have created the infrastructure in steps hence executed these commands after writing every file)
* Installed kubectl.
* Updated kubeconfig (aws eks - - region eu-central-1 update-kubeconfig - - name eks - - profile terraform)

1. Task 2: Creating Docker Image
2. Image: Available in Dockerhub (docker pull bshreya639/spacebeacon:1.0)
3. Created a basic image using php, that exposes port 80. The Get request is parameterized and is accessed by $host:$port/get\_req.php/?name=$value
4. Helm Deployment
5. Created a namespace (kubectl create namespace spacebeacon)
6. Created a chart (helm create spacebe)
7. Configured deployment.yaml, service.yaml, Chart.yaml and values.yaml
8. Installed Chart (from the appropriate directory): helm install -f values.yaml -n spacebeacon spacebeacon .

**ISSUES FACED+DECISIONS: (listed the major ones)**

1. I did not have an amazon account, hence setting it up took quite some time.
2. I primarily work with windows device, hence had to find work around to make it work. Tried with Ubuntu WSL which again started creating device problems and then decided to use a VM.
3. I decided to create an EKS with 4 subnets (2 public 2 private) instead of 1, based on errors encountered, Amazon recommendations and standard practices.
4. I also planned to make the terraform scripts more dynamic with variables but unfortunately couldn’t based on how much time I could dedicate.

**THOUGHTS OR SUGGESTIONS**

1. Perhaps access to a test environment would be helpful if provided to work on.