

NTI DevOps Final Project

1- Terraform:

- create EKS Cluster consists of two nodes with auto scaling group and ELB
- create RDS instance and store username and password in AWS secret manger
- create EC2 for running Jenkins
- make daily snapshot of jenkins instace using aws backup service
- save ELB access log to AWS S3 Bucket
- create AWS ECR

2- Ansible:

- install jenkins including configuration and plugin installations
- install cloud-watch agent on all ec2 in your project

3-Docker:

- make docker images for the code
- create docker compose to run app completely in local

4-Kubernetes:

- create kubernetes manifests to apply it into AWS EKS cluster
- make network policy to ensure security best practice between pods

5-Jenkins:

- create multi-branch pipeline to make build on every push on all github branches
- pipeline stages:
 - build dockerfile in the repo
 - push it to ECR
 - deploy new image to kubernetes pods