

Freifach: Advanced DevOps

COMPUTER SCIENCE AND DIGITAL COMMUNICATIONS



IaC with Terraform & AWS

Objective

Assignment Objective: Gain practical experience with IaC using Terraform.

Key Concepts: Terraform, IaC, AWS Cloud

Requirements: AWS-CLI, Terraform

Task

- Deploy a containerized web application in the cloud using Terraform.
- The application should be accessed by a DNS record.

Steps

- Step 0: Prepare Your Environment:
 - Login to AWS, Install AWS CLI and Terraform, Create IAM application access key
- Step 1: Deploy Your Next.js
 - Utilize Terraform with AWS components.
- Step 2: Ensure application accessibility via DNS

** You can use different AWS services to get this assignment done. But I recommend the ones you can find on the next slide. But feel free to use other services as you want/need. **

Bonus Points

- Implement Terraform apply step in your GitHub pipeline and handle infrastructure creation, updates (i.e. new version of the image), and provisioning in AWS

Hints

- Services which you may (or may not) use:
 - AWS Elastic Container Registry (ECR)
 - Amazon Elastic Container Service (ECS)
 - Amazon Virtual Private Cloud (VPC)
 - AWS Application Load Balancer (ALB)
 - AWS Security Groups

Questions?