# DevSecOps – Lab Interview
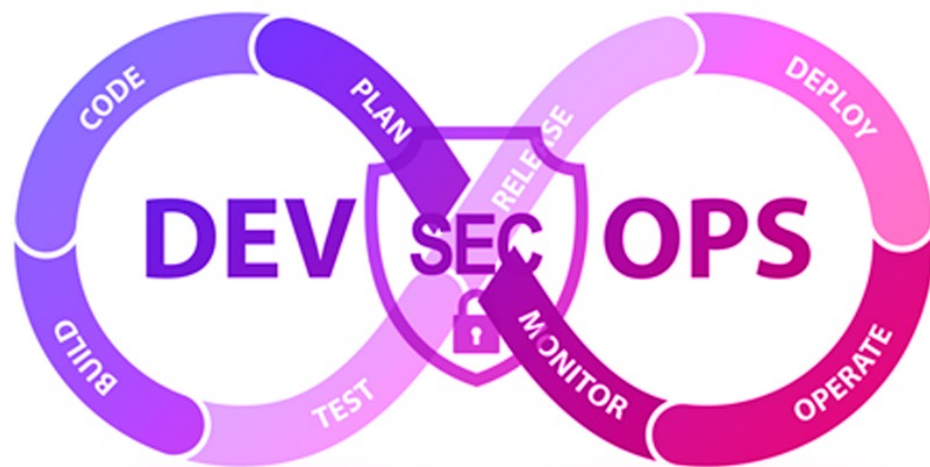
# Terraform

**Terraform:**
1. Review the AWS, Azure or GCP reference architecture (slides 5 & 6).
2. Develop the Terraform templates to create the reference architecture (AWS, Azure or GCP). Please be sure to make use of modules and all other best practices. For this exercise, assume the use of Terraform opensource.
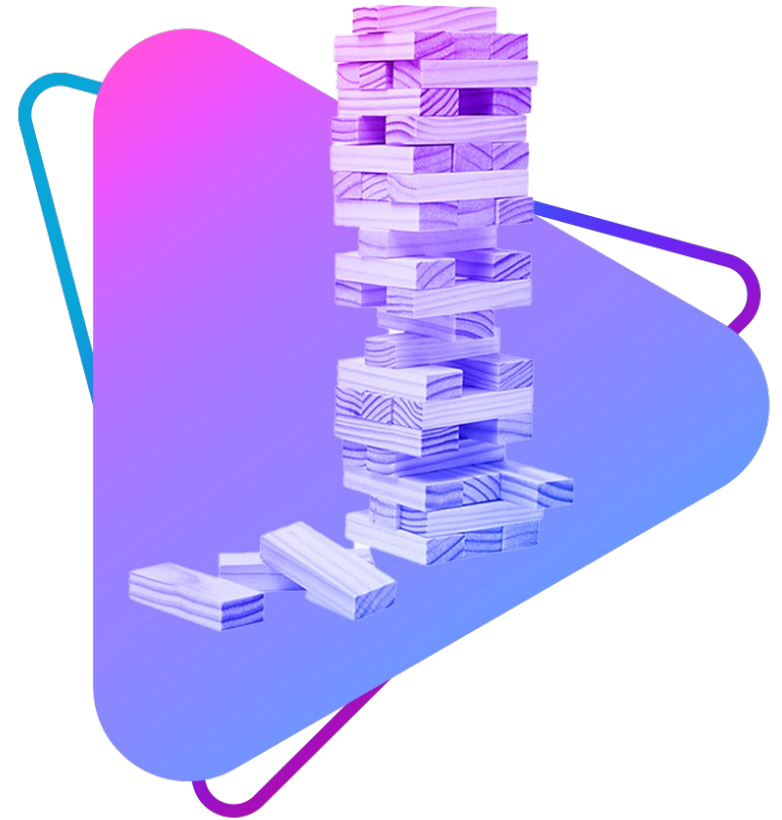
# CDK

**CDK w/python:**
1. Review the AWS reference architecture
2. Using python, develop CDK to deploy the reference architecture
3. CDK should be developed to deploy 3 stacks
    1. Networking
    2. Compute & storage
    3. S3
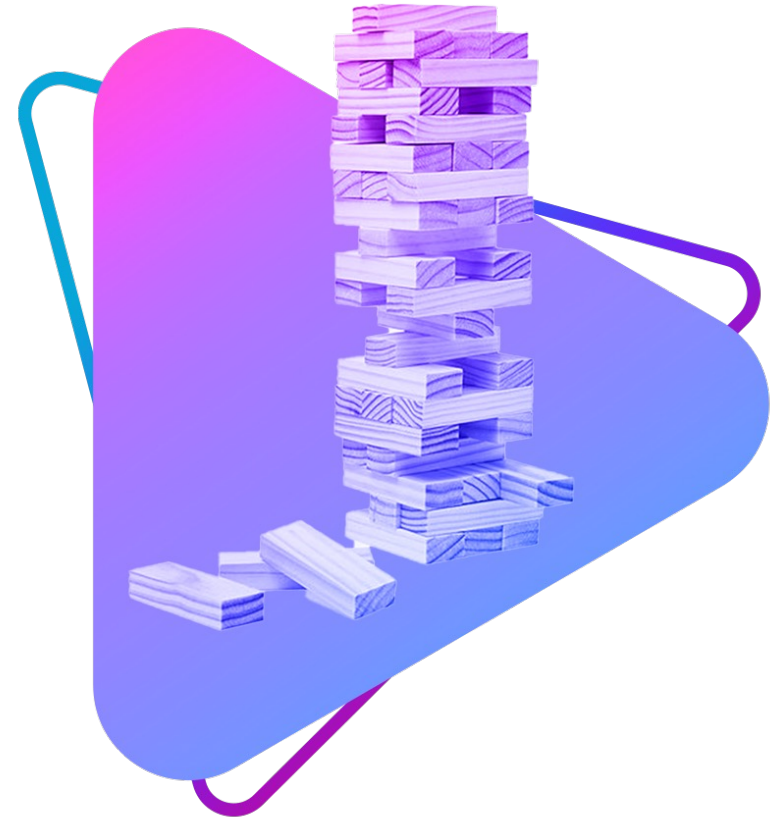
# IaC Pipeline

**IaC Pipeline:**

1. Create a yaml template (CICD) that can be used to validate, scan and deploy Terraform IaC .
2. Please create the yaml template for one of the following platforms:
   - GitHub Actions
   - Azure DevOps
   - GitLab
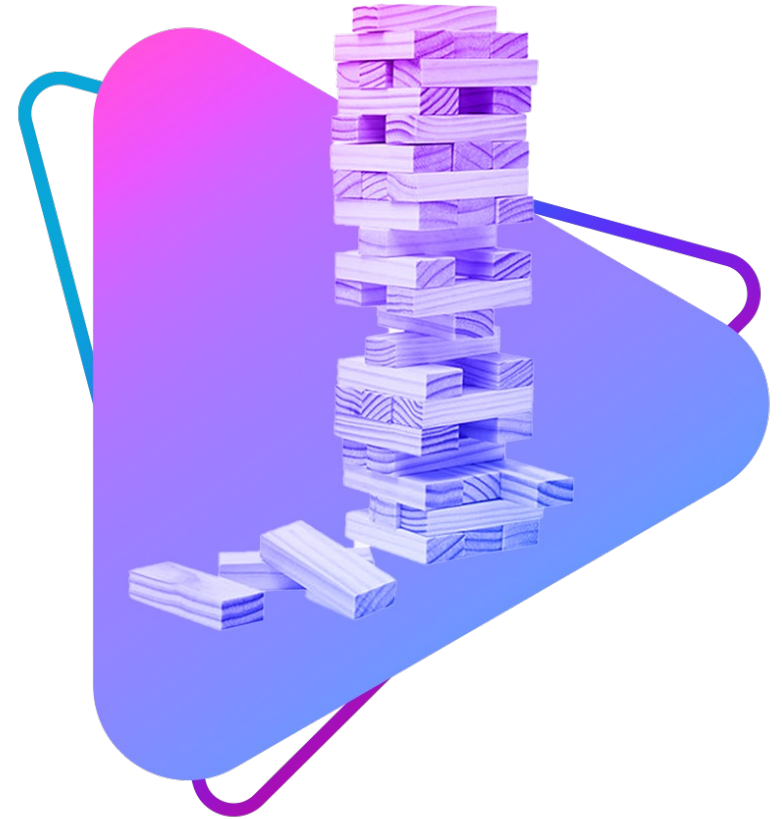
# Docker

**Update Dockerfile:**
1. Using the base Dockerfile provided in the Docker directory.
2. Review the instructions provided in the Dockerfile and customize accordingly
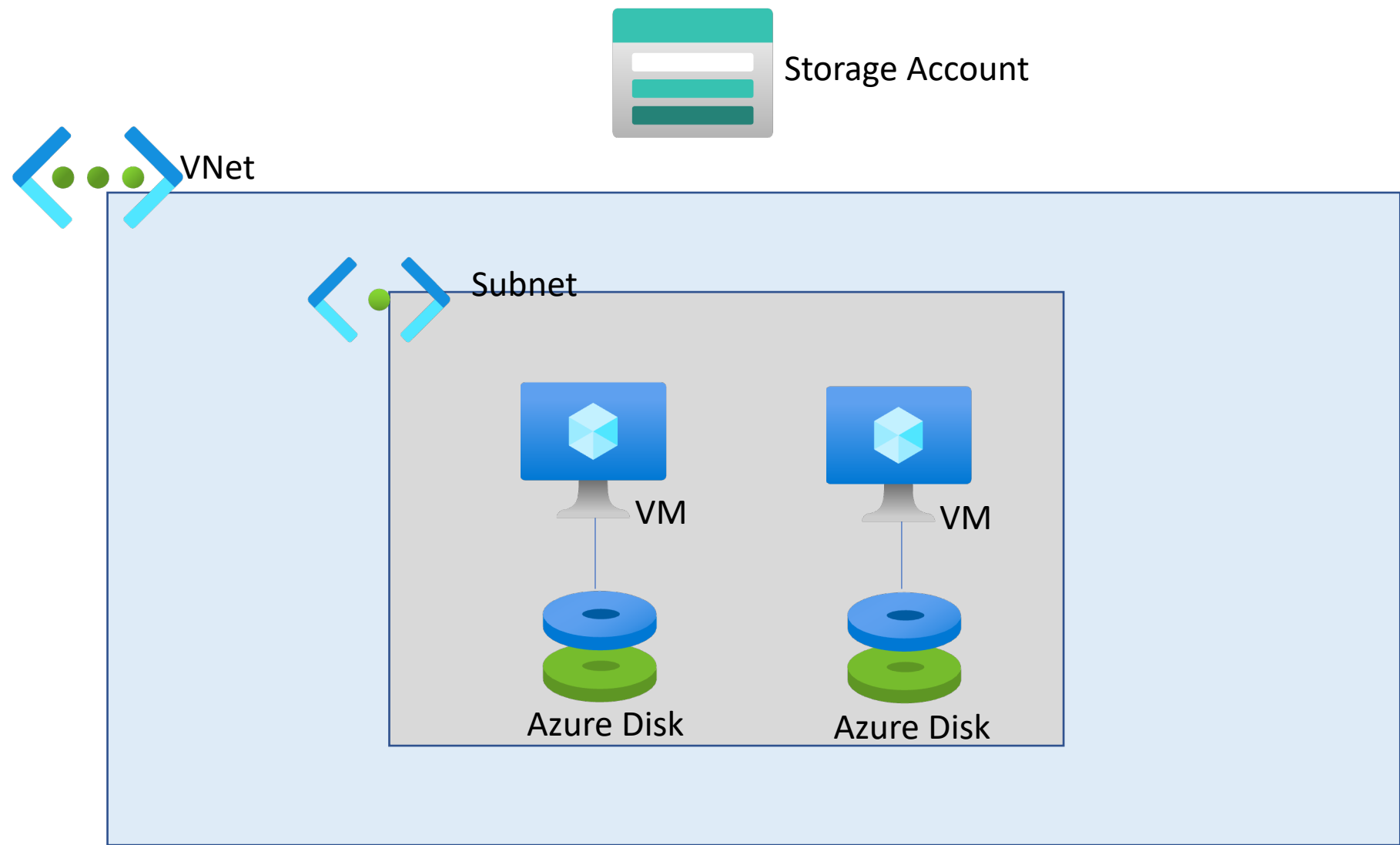
**Build Docker Image:**
1. Build the docker image locally
2. List the docker images and capture and provide a screenshot.
3. Using the image, create and start a container
4. List running containers and capture and provide a screenshot
5. Update README with commands to create image and create/start container, as well as command that would be used to upload image to DockerHub registry.

# AWS Reference Architecture

VPC

S3 Bucket

Subnet

EC2

EC2

EBS

EBS
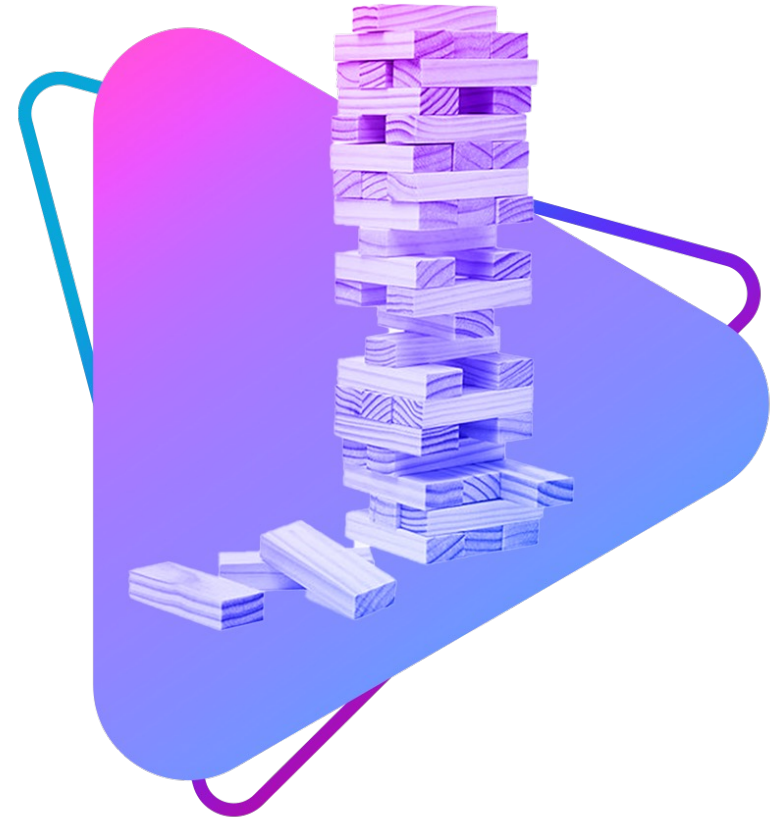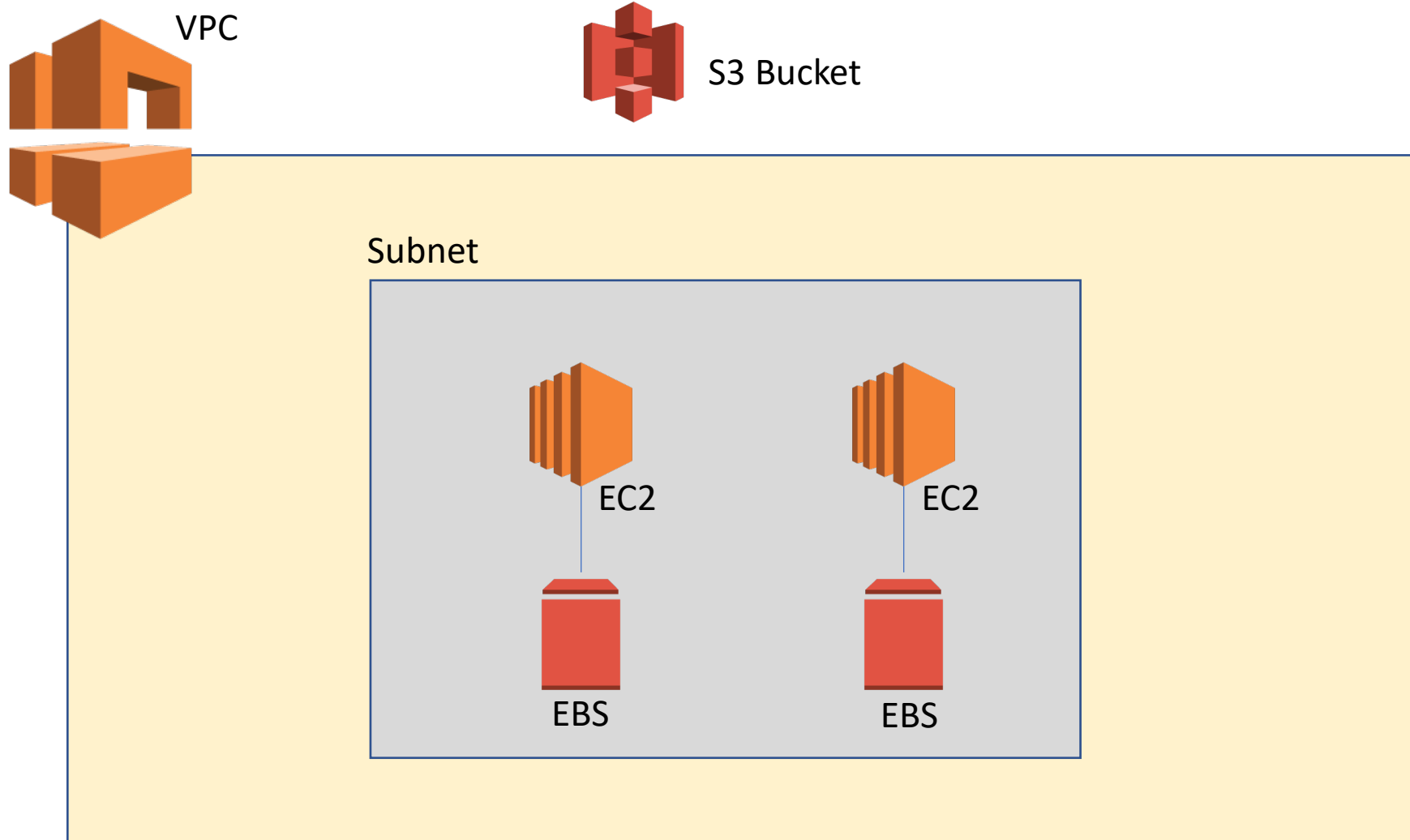
# Azure Reference Architecture

# GCP Reference Architecture