

Deployment #7

Task: Follow each step of this deployment lab to accomplish deployment 7. This deployment requires an ECS cluster and an EC2s. Once you have completed the deployment, we will configure an ALB together.

EC2 requirements:

1. Install docker on an EC2 (use the Ubuntu ami)
2. Place EC2 in a public subnet

ECS requirements:

1. Create an ECS Cluster
2. Create a Task Definition (Jenkins docker images) in the same public subnet as the EC2
3. Install recommended plugins, Docker pipeline plugin, and AWS EC2 plugin

Pipeline script:

1. Create a GitHub repository for Jenkins for the files below.
2. Add a Dockerfile file with instructions for creating the Java application to your repository.
3. Add the jar file to your repository.
4. Create a Jenkinsfile file for your pipeline. Below is a hint:

```
pipeline {
    agent { label "your_label" }

    environment {
        DOCKERHUB_CREDENTIALS = credentials("your_username"-dockerhub')
    }

    stages {
        stage ('Build') {
            steps {
                sh 'docker .....'
            }
        }
        stage ('Login') {
            steps {
                sh 'echo $DOCKERHUB_CREDENTIALS_PSW | docker login -u
$DOCKERHUB_CREDENTIALS_USR --password-stdin'
```

```
}  
  stage ('Push') {  
    steps {  
      sh 'docker .....'  
    }  
  }  
}  
}
```

Enter credentials in Jenkins:

1. Generate an Access Token from your DockerHub (not AWS ECR).
2. Enter your username and token into Jenkins global credentials.
3. When you enter your username and password, you will also see an ID section; enter "your-username"-dockerhub (do not include the double quotes)