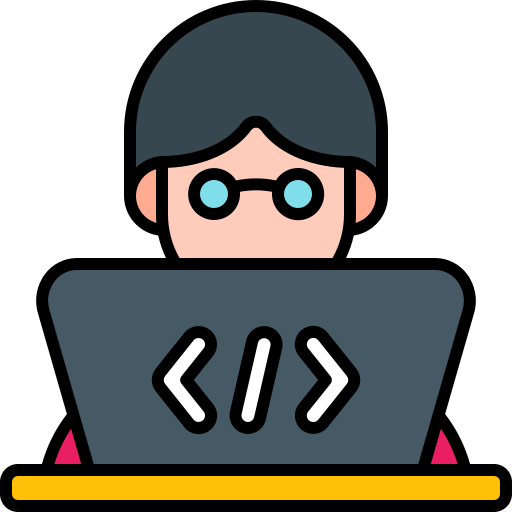
**DOCKER CI WITH JENKINS**



**Developer(git)**



**GitHub**

Fetch Code

Build

Unit Test

Code Analysis

Upload Artifact



Docker Build



**Pre-requisites**

1. **AWS IAM user with ECR permission**
2. **Store AWS credentials in Jenkins**
3. **Create an ECR repository on AWS**
4. **Docker pipeline plug in has to be installed on Jenkins dashboard**
5. **Docker Engine has to be installed on Jenkins server**
6. **ECR plug in has to be installed on Jenkins dashboard**

**Steps:**

1. **Install Docker Engine in Jenkins server**
   1. **Add Jenkins user to docker group & reboot**
2. **Install AWS CLI**
3. **Create IAM user in AWS**
4. **Create ECR Repository in AWS**
5. **Plugins** 
   1. **Ecr, docker pipeline, aws sdk for credentials**
6. **Store AWS credentials in Jenkins**
7. **RUN the pipeline**

Install Docker Engine in Jenkins server

1. Login to Jenkins server
2. Run below commands to install Docker

$ curl -fsSL https://get.docker.com -o get-docker.sh

$ sh get-docker.sh

1. Add Jenkins user to Docker group

$ id jenkins

$ usermod -a -G docker jenkins

$ id jenkins

$ apt install awscli -y

$ reboot

AWS Setup

* Login to AWS console
* Search for IAM
* Click on “Users”
* Click “Add user”
* Give the username as “Jenkins”
* Select “Access Key – Programmatic access”
* Attach existing policy
* Search for “Registry”
* Select “AmazonEC2ContainerRegistryFullAccess”
* Search for “ecs”
* Select “AmazonECS\_FullAccess”
* Click next
* Create user
* Download .csv file
* Now create the ECR repository 🡪 search for ecr in the console search bar
* Select “Elastic Container Registry”
* Click “Create Repository”
* Keep it “Private”
* Give a name like “sscademyaapimg”
* Click “Create respository”

Jenkins Plugins setup

* Login to Jenkins dashboard
* Click on “Manage Jenkins”
* Click on “Manage plugins”
* Click on “Available”
* Search for “Docker pipeline”
* Search for “Amazon ecr”
* Search for “Amazon Web Services SDK::All”
* Search for “CloudBees Docker Build and Publish”
* Click install without restart

Store AWS credentials in Jenkins

* Go to Jenkins dashboard
* Manage Jenkins
* Manage Credentials
* Click on Jenkins
* Click on “Global credentials”
* Click Add credentials
* Select “AWS credentials”
* Give name as “awscreds”
* Give “Access key ID” & “Secret access key” which we have downloaded while creating the IAM user