**Jenkins configuration for project:**  
**first (plugins):**  
 **Docker Pipeline Plugin**: To build and run Docker images.

* **Pipeline Plugin**: To create Jenkins pipelines with Jenkinsfile.
* **Git Plugin**: For integrating with Git repositories.
* **AWS Credentials Plugin**: To securely manage AWS credentials in Jenkins.
* **Credentials Binding Plugin**: For securely binding environment variables to credentials.
* **WS Cleanup Plugin**: To clean up workspaces after builds.

**Second (credentials):**  
 **Create AWS Credentials in Jenkins**

* Go to Jenkins Dashboard → Manage Jenkins → Manage Credentials.
* Add a new **AWS credential** with the ID aws-ecr-credentials.
* Access Key ID ,Secret Access Key :

Third(machine setup):

* 1. Make sure it contains docker and put Jenkins in it’s group:  
     sudo usermod -aG docker jenkins

sudo systemctl restart jenkins

groups jenkins

sudo systemctl restart docker

2-Install AWS CLI: Ensure that the AWS CLI is installed on your Jenkins server:-

sudo apt-get update

sudo apt-get install awscli

aws --version

aws configure

**Add SSH Key as a Jenkins Credential:**

* Navigate to **Manage Jenkins** → **Manage Credentials** → **Global Credentials**.
* Click **Add Credentials** → Choose **Secret file**.
* Upload the private key (.pem or .key).
* Set **ID** to secret\_key