DEVOPS

DAY – 3

Mavenwebapp Jenkins Output

Simpletomcatapplication Jenkins Output

Installation Commands in WSL:

1. **Git installation:**
   a. sudo apt update
   b. sudo apt install git
   c. git --version
   d. git config --global user.name "Your Name"
   e. git config --global user.email your.email@example.com

2. **JDK installation:**
   a. sudo apt update
   b. sudo apt upgrade -y
   c. sudo apt install default-jdk -y
   d. java –version

3. **Maven installation:**
   a. sudo apt install maven -y
   b. mvn -version

4. **Jenkins installation:**
   a. sudo wget -O /usr/share/keyrings/jenkins-keyring.asc \
      https://pkg.jenkins.io/debian-stable/jenkins.io-2023.key
   echo "deb [signed-by=/usr/share/keyrings/jenkins-keyring.asc]" \
      https://pkg.jenkins.io/debian-stable binary/ | sudo tee \
      /etc/apt/sources.list.d/jenkins.list > /dev/null
   sudo apt-get update
   sudo apt-get install Jenkins
   b. sudo service Jenkins restart
   c. sudo service Jenkins status
   d. 4. sudo cat /var/lib/jenkins/secrets/initialAdminPassword

5. **Docker installation:**
   a. sudo apt install docker-compose -y
   b. sudo service docker restart
   c. sudo service docker status
   d. sudo usermod -aG docker $USER
   e. docker images
   f. docker ps

g. sudo chmod 666 /var/run/docker.sock

6. **Kubernetes installation:**
   a. Go to https://kubernetes.io/docs/tasks/tools/install-kubectl-linux/
   b. curl -LO https://dl.k8s.io/release/v1.32.0/bin/linux/amd64/kubectl
   c. sudo install -o root -g root -m 0755 kubectl /usr/local/bin/kubectl
   d. chmod +x kubectl
   e. mkdir -p ~/.local/bin
   f. mv ./kubectl ~/.local/bin/kubectl
   g. kubectl version –client

7. **Minikube installation:**
   a. Go to
      https://minikube.sigs.k8s.io/docs/start/?arch=%2Fwindows%2Fx86-
      64%2Fstable%2F.exe+download
   b. curl -LO
      https://github.com/kubernetes/minikube/releases/latest/download/mini
      kube-linux-amd64
   c. sudo install minikube-linux-amd64 /usr/local/bin/minikube && rm
      minikube-linux-amd64
   d. minikube start
   e. minikube status
   f. kubectl get pod
   g. kubeclt get deploy
   h. kubectl get replica or rs or replicaaset
   i. kubectl get pod -o wide

Docker Compose:

1. sudo apt install docker-compose -y

2. sudo nano docker-compose.yml

{

  version: '3'

```yaml
services:
  web:
    image: nginx:latest
    ports:
      - "80:80"

  db:
    image: mysql:latest
    environment:
      MYSQL_ROOT_PASSWORD: "1234"
```

}

3. docker-compose up -d

4. docker-compose images

5. docker-compose ps

6. sudo docker exec -it bavya_db_1 bash

7. mysql -u root -p

Maven Jenkins:

1. git clone https://github.com/Bavyadharshini-Rajaganapathy/devops1.git

2. cd devops1

3. Go to localhost:8080

4. Create an Item named Maven freestyle

5. Choose git

6. Select Execute shell

Shell:

    mvn clean package

Simpletomcatapplication:

1. sudo nano JenkinsFile

```
{



pipeline {
    agent any

    stages {
        stage('scm') {
            steps {
            git branch: 'main', url: 'https://github.com/Bavyadharshini-
Rajaganapathy/devops1.git'
            }
        }
        stage('build') {
            steps {
                sh "mvn clean"
                sh "mvn install"
}
}
stage('build to images') {
        steps {
```

```
        script{

            sh 'docker build -t bavyadharshini/simplewebapp .'

        }

    }

}

stage('push to hub') {

        steps {

          script{

            withDockerRegistry(credentialsId: 'Docker_cred', url:
'https://index.docker.io/v1/') {

              sh 'docker push bavyadharshini/simplewebapp'

          }

        }

        }

}

}

}


}
```

2. ls

3. cd devops1

4. git add .

5. git push origin main

6. sudo chmod 666 /var/run/docker.sock

7. ls -lrt /var/run/docker.sock