Spring Boot with Maven & Tomcat in Docker

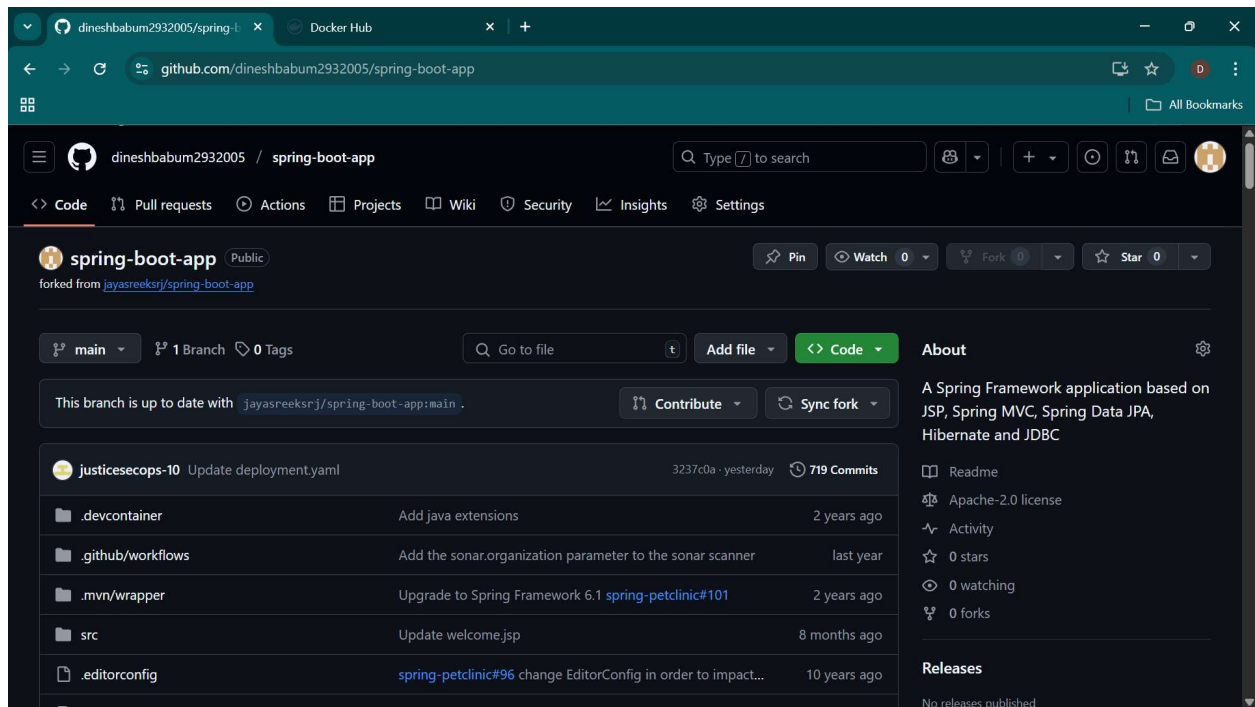https://github.com/dineshbabum2932005/spring-boot-app

Plugins:

 Maven Integration plugin

Pipeline Maven plugin

 Tools: Use maven 3.9.6

and Maven Home as /opt/mvn

Configure - pipeline:

```
        pipeline {
    agent any

    environment {
        DOCKER_IMAGE = "dineshbabum2903/mvn"
```

```
        DOCKER_TAG = "latest"
        DOCKER_CREDENTIALS_ID = "docker"
        GITHUB_CREDENTIALS_ID = "github_seccred"
        KUBECONFIG = "/var/lib/jenkins/.kube/config"
        MAVEN_HOME = "/opt/maven"  // Set the correct Maven path
    }

    stages {
        stage('Checkout Code') {
            steps {
                git credentialsId: GITHUB_CREDENTIALS_ID, url:
'https://github.com/dineshbabum2932005/spring-boot-app.git', branch: 'main'
            }
        }

        stage('Build Application') {
            steps {
                script {
                    sh "${MAVEN_HOME}/bin/mvn clean package -DskipTests"
                }
            }
        }

        stage('Run Maven Tests') {
            steps {
                script {
                    catchError(buildResult: 'SUCCESS', stageResult: 'FAILURE') {
                        sh "${MAVEN_HOME}/bin/mvn test"
                    }
                }
            }
        }

        stage('Build Docker Image') {
            steps {
                script {
                    sh "docker build -t ${DOCKER_IMAGE}:${DOCKER_TAG} ."
                }
            }
        }

        stage('Push Docker Image') {
            steps {
                withDockerRegistry([credentialsId: DOCKER_CREDENTIALS_ID, url: ']) {
                    sh "docker push ${DOCKER_IMAGE}:${DOCKER_TAG}"
                }
            }
        }
```

```
// Uncomment this stage when Kubernetes deployment is ready
// stage('Deploy to Kubernetes') {
//     steps {
//         script {
//             sh '''
//                 chmod +x scripts/deploy.sh
//                 ./scripts/deploy.sh
//             '''
//         }
//     }
// }
}

post {
    success {
        echo "✅Deployment Successful!"
    }
    failure {
        echo "❌ Deployment Failed!"
    }
}
}
```

After build:

docker ps -a docker run -it dineshbabum2903/mvn:latest /bin/bash

apache-maven-3.9.6/lib/maven-resolver-connector-basic-1.9.18.jar
apache-maven-3.9.6/lib/maven-resolver-transport-file-1.9.18.jar
apache-maven-3.9.6/lib/maven-resolver-transport-http-1.9.18.jar
apache-maven-3.9.6/lib/httpcore-4.4.16.jar
apache-maven-3.9.6/lib/commons-codec-1.16.0.jar
apache-maven-3.9.6/lib/maven-resolver-transport-wagon-1.9.18.jar
apache-maven-3.9.6/lib/maven-slf4j-provider-3.9.6.jar
apache-maven-3.9.6/lib/jansi-2.4.0.jar
root@dieshbabu:/opt# sudo mv apache-maven-3.9.6 maven
root@dieshbabu:/opt# sudo nano /etc/profile.d/maven.sh
root@dieshbabu:/opt# sudo nano /etc/profile.d/maven.sh
root@dieshbabu:/opt# sudo nano /etc/profile.d/maven.sh
root@dieshbabu:/opt# sudo chmod +x /etc/profile.d/maven.sh
source /etc/profile.d/maven.sh
root@dieshbabu:/opt# mvn -version
Apache Maven 3.9.6 (bc0240f3c744ddd6b6ec2920b3cd08dcc295161ae)
Maven home: /opt/maven
Java version: 17.0.14, vendor: Ubuntu, runtime: /usr/lib/jvm/java-17-openjdk-amd64
Default locale: en_IN, platform encoding: UTF-8
OS name: "linux", version: "6.8.0-52-generic", arch: "amd64", family: "unix"
root@dieshbabu:/opt#
exit
dineshbabu@dieshbabu:~$ mvn --version
Command 'mvn' not found, but can be installed with:
apt install maven
Please ask your administrator.
dineshbabu@dieshbabu:~$ cd /root
sudo tar -xvzf apache-maven-3.9.6-bin.tar.gz
bash: cd: /root: Permission denied
[sudo] password for dineshbabu:
dineshbabu is not in the sudoers file. This incident will be reported.
dineshbabu@dieshbabu:~$ su
Password:
su: Authentication failure
dineshbabu@dieshbabu:~$ su
Password:
root@dieshbabu:/home/dineshbabu# cd ~
root@dieshbabu:~# cd ~
root@dieshbabu:~# cd ~
root@dieshbabu:~# exit
exit
dineshbabu@dieshbabu:~$ sudo apt remove maven -y
sudo apt autoremove -y
[sudo] password for dineshbabu:
dineshbabu is not in the sudoers file. This incident will be reported.
[sudo] password for dineshbabu:
dineshbabu is not in the sudoers file. This incident will be reported.
dineshbabu@dieshbabu:~$ sudo apt remove maven -y
[sudo] password for dineshbabu:
dineshbabu is not in the sudoers file. This incident will be reported.
dineshbabu@dieshbabu:~$ su
Password:
root@dieshbabu:/home/dineshbabu# ^C
root@dieshbabu:/home/dineshbabu# docker ps -a
CONTAINER ID   IMAGE   COMMAND   CREATED   STATUS   PORTS
                                 NAMES