

## ***DEVSECOPS PROJECT – 3 (COMPLETE CI-CD PETSHOP)***

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### **1.PIPELINE SYNTAX**

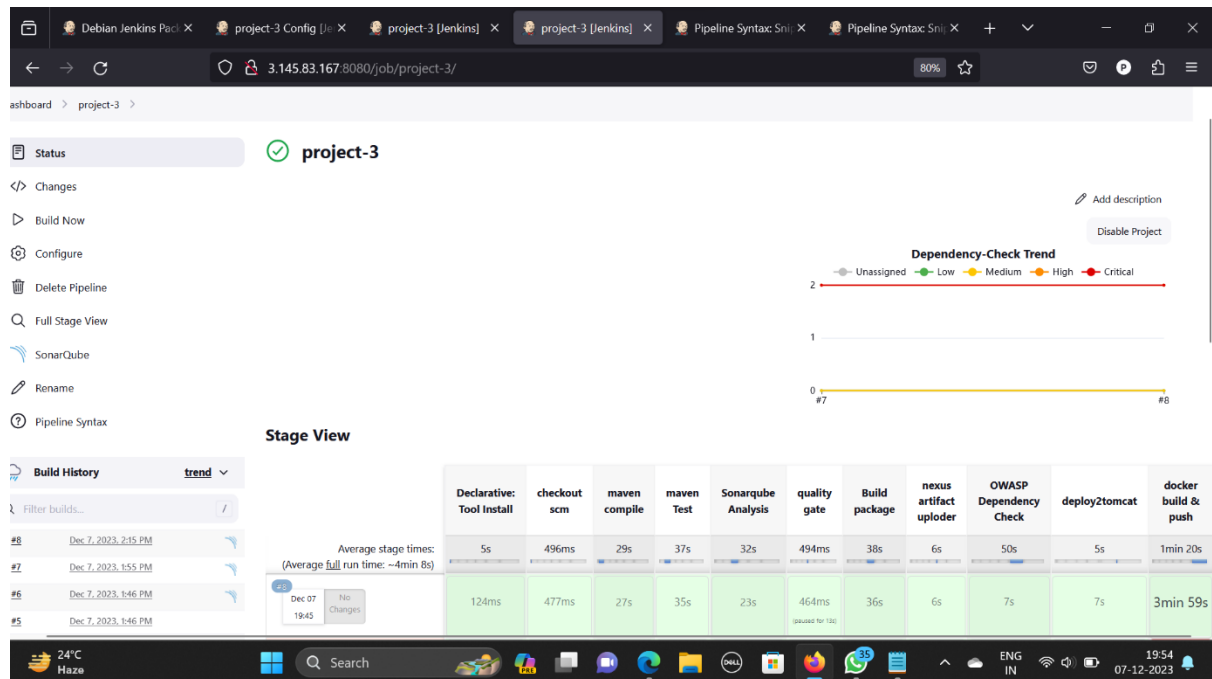
```
pipeline{
  agent any
  tools {
    jdk 'jdk17'
    maven 'maven3'
  }
  environment {
    SCANNER_HOME=tool 'sonar-scanner'
  }
  stages{
    stage ('checkout scm') {
      steps {
        checkout scmGit(branches: [[name: '*/master']], extensions: [], userRemoteConfigs: [[url:
'https://github.com/Aj7Ay/jpetstore-6.git']])
      }
    }
    stage ('maven compile') {
      steps {
        sh 'mvn clean compile'
      }
    }
    stage ('maven Test') {
      steps {
        sh 'mvn test'
      }
    }
    stage("Sonarqube Analysis "){
      steps{
        withSonarQubeEnv('sonar-server') {
          sh "' $SCANNER_HOME/bin/sonar-scanner -Dsonar.projectName=Project-3 \
-Dsonar.java.binaries=. \
-Dsonar.projectKey=Project-3 '"
        }
      }
    }
    stage("quality gate"){
```

```

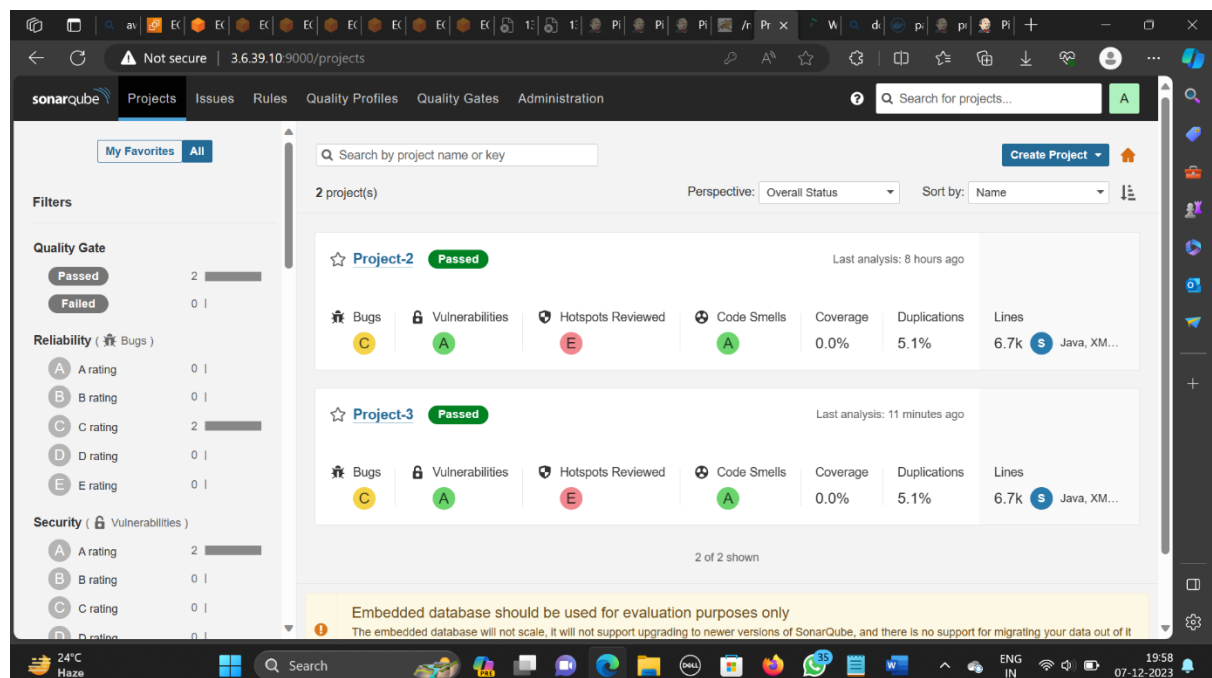
    steps {
        script {
            waitForQualityGate abortPipeline: false, credentialsId: 'sonar-token'
        }
    }
}
stage ('Build package'){
    steps{
        sh 'mvn package'
    }
}
stage('nexus artifact uploader'){
    steps{
        nexusArtifactUploader artifacts: [[artifactId: 'jpetstore', classifier: '', file:
'/var/lib/jenkins/workspace/project-3/target/jpetstore.war', type: 'war']], credentialsId: 'nexus-cred',
groupId: 'org.mybatis', nexusUrl: '65.0.75.133:8081', nexusVersion: 'nexus3', protocol: 'http',
repository: 'project', version: '6.1.1-SNAPSHOT'
    }
}
stage("OWASP Dependency Check"){
    steps{
        dependencyCheck additionalArguments: '--scan ./ --format XML ', odciInstallation: 'Dp-check'
        dependencyCheckPublisher pattern: '**/dependency-check-report.xml'
    }
}
stage('deploy2tomcat'){
    steps{
        deploy adapters: [tomcat9(credentialsId: 'tomcat-cred', path: '', url:
'http://13.234.29.65:8080/)], contextPath: null, war: '**/*.war'
    }
}
stage('docker build & push'){
    steps{
        script{
            withDockerRegistry(credentialsId: 'docker-cred') {
                sh "docker build -t pavan1359/pavan_repo1:v1.0.0 ."
                sh "docker push pavan1359/pavan_repo1:v1.0.0"
            }
        }
    }
}
}
}

```

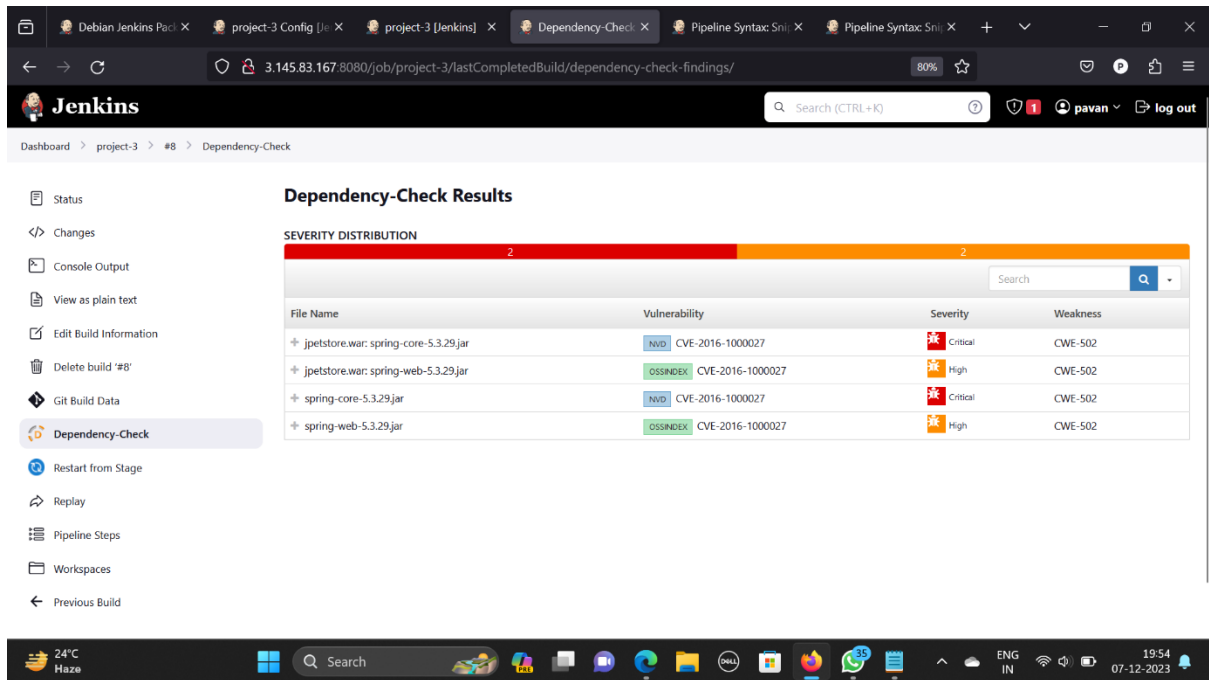
## OUTPUT:



## SonarQube Analysis status:



## Dependency check status:

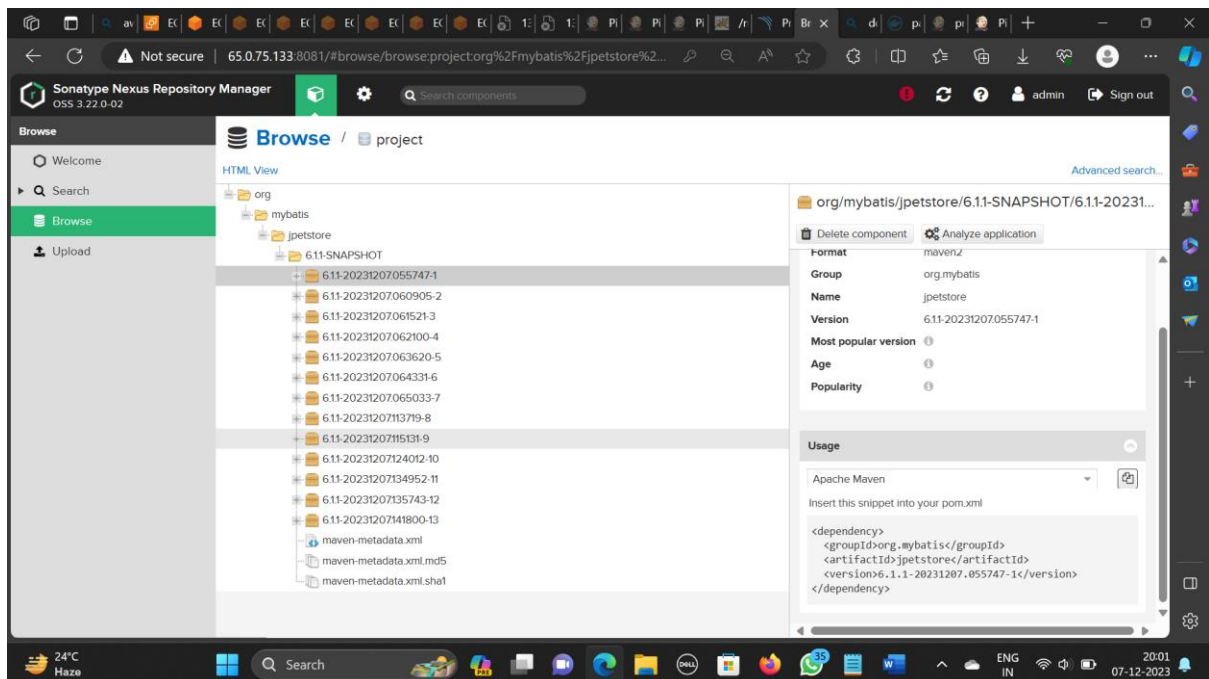


The screenshot shows the Jenkins web interface with the 'Dependency-Check' tab selected. The 'Dependency-Check Results' page displays a 'SEVERITY DISTRIBUTION' bar chart with 2 Critical (red) and 2 High (orange) vulnerabilities. Below the chart is a table of findings:

File Name	Vulnerability	Severity	Weakness
✚ jpetstore.war: spring-core-5.3.29.jar	NVD CVE-2016-1000027	Critical	CWE-502
✚ jpetstore.war: spring-web-5.3.29.jar	OSINDEX CVE-2016-1000027	High	CWE-502
✚ spring-core-5.3.29.jar	NVD CVE-2016-1000027	Critical	CWE-502
✚ spring-web-5.3.29.jar	OSINDEX CVE-2016-1000027	High	CWE-502

The left sidebar contains navigation links: Status, Changes, Console Output, View as plain text, Edit Build Information, Delete build '#8', Git Build Data, **Dependency-Check**, Restart from Stage, Replay, Pipeline Steps, Workspaces, and Previous Build. The bottom status bar shows '24°C Haze', a search bar, and system icons for date and time (07-12-2023, 19:54).

## Nexus Artifact Uploader:

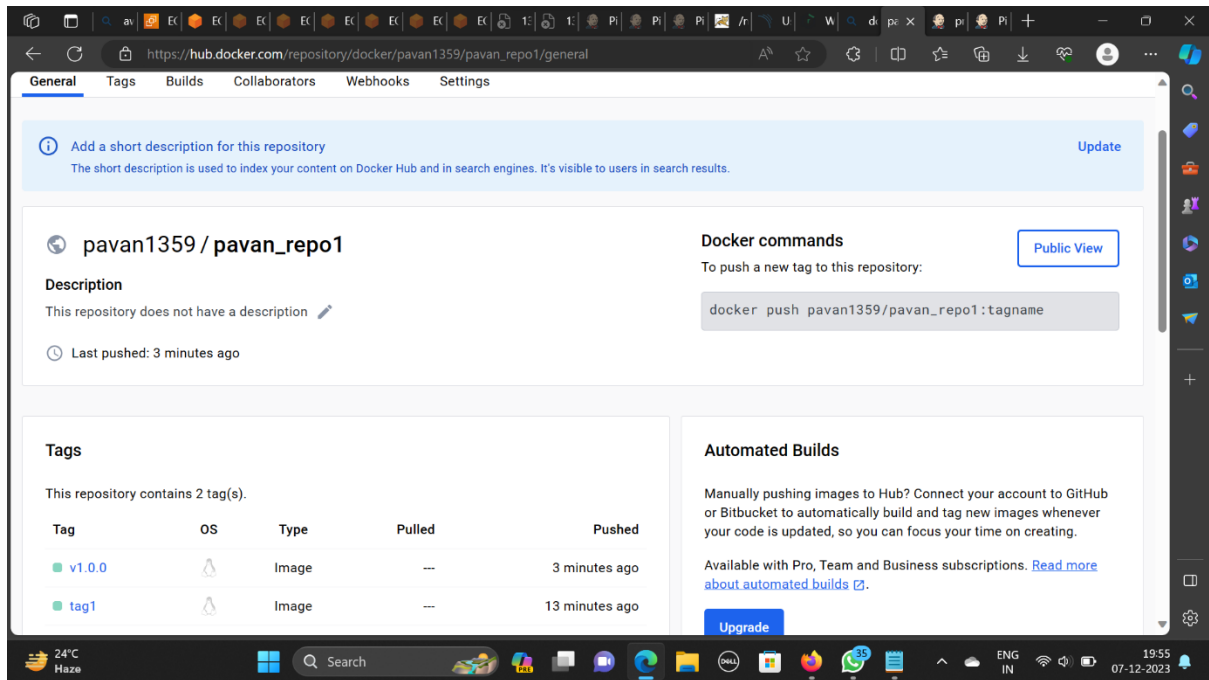


The screenshot shows the Sonatype Nexus Repository Manager web interface. The 'Browse' tab is active, displaying a tree view of the repository structure: org > mybatis > jpetstore > 6.1.1-SNAPSHOT. A list of snapshot versions is shown, with '6.1.1-20231207055747-1' selected. The right-hand pane shows the details for this artifact, including its format (maven2), group (org.mybatis), name (jpetstore), and version (6.1.1-20231207055747-1). The 'Usage' section provides a snippet for adding the artifact to a pom.xml file:

```
<dependency>
  <groupId>org.mybatis</groupId>
  <artifactId>jpetstore</artifactId>
  <version>6.1.1-20231207.055747-1</version>
</dependency>
```

The left sidebar contains navigation links: Welcome, Search, **Browse**, and Upload. The bottom status bar shows '24°C Haze', a search bar, and system icons for date and time (07-12-2023, 20:01).

## Image pushed to Docker Hub:



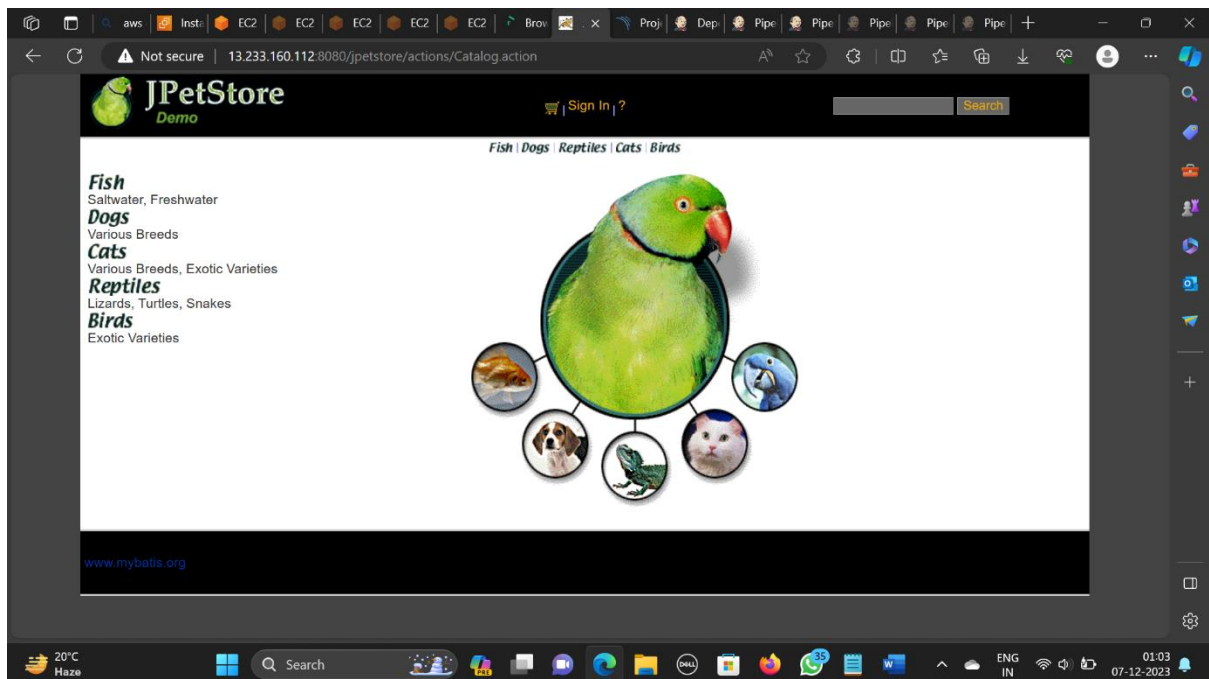
The screenshot shows the Docker Hub interface for a repository named **pavan1359/pavan\_repo1**. The page is divided into several sections:

- General** tab is selected, showing repository details.
- Description**: The repository does not have a description. A note indicates that a short description is used for indexing on Docker Hub and in search engines.
- Docker commands**: A section for pushing a new tag to the repository, with a button for **Public View** and a code block showing the command: `docker push pavan1359/pavan_repo1:tagname`.
- Tags**: A table showing the repository contains 2 tag(s).

Tag	OS	Type	Pulled	Pushed
v1.0.0	Linux	Image	---	3 minutes ago
tag1	Linux	Image	---	13 minutes ago
- Automated Builds**: A section explaining how to connect the repository to GitHub or Bitbucket for automated builds. It includes a link to [Read more about automated builds](#) and an **Upgrade** button.

The bottom of the screen shows a Windows taskbar with the date 07-12-2023 and time 19:55.

## Deployed to Tomcat:



The screenshot shows a web browser displaying the **JPetStore Demo** application. The URL is `13.233.160.112:8080/jpetstore/actions/Catalog.action`. The application features a navigation menu with categories: **Fish** (Saltwater, Freshwater), **Dogs** (Various Breeds), **Cats** (Various Breeds, Exotic Varieties), **Reptiles** (Lizards, Turtles, Snakes), and **Birds** (Exotic Varieties). A large image of a green parrot is displayed in the center, surrounded by smaller circular images of other animals. The bottom of the screen shows a Windows taskbar with the date 07-12-2023 and time 01:03.