

Testing in DevOps

DOu – Certified Tester in DevOps (CTD)

Exercise Solutions





HO-2.4.1(HO-2)

Exercise - Perform an exercise providing a hint of integrating a static analysis tool in the DevOps pipeline and checking the test coverage of a given code and its tests

 Add Code Coverage stage in jenkins pipeline and trigger the jenkins build. Discuss code coverage reports.



HO-2.4.1(HO-2)

Exercise Solution - Perform an exercise providing a hint of integrating a static analysis tool in the DevOps pipeline and checking the test coverage of a given code and its tests

- Make sure you are already logged in Jenkins and be on Dashboard UI
- Add Code Coverage stage in Jenkinsfile.txt on local machine:
 - Clean(already added)
 - PMD(already added)
 - Compile(already added)
 - Code Analysis(already added)
 - Unit Test(already added)
 - Code Coverage



HO-2.4.1(HO-2) Add Stage – Code Coverage

- Code Coverage defines a stage that appears on the Jenkins UI
- 2. **sh** runs the Maven command to perform the code coverage



HO-2.4.1(HO-2)

Exercise Solution - Perform an exercise providing a hint of integrating a static analysis tool in the DevOps pipeline and checking the test coverage of a given code and its tests

- Saving Jenkinsfile.txt & Commit it on GitHub
- Running The Pipeline
 - Go to Jenkins Dashboard
 - Build will be triggered automatically because of webhook
 - Click Build no. link
 - Click Console Output link
 - Verify build result is successful
 - Verify jacoco reports

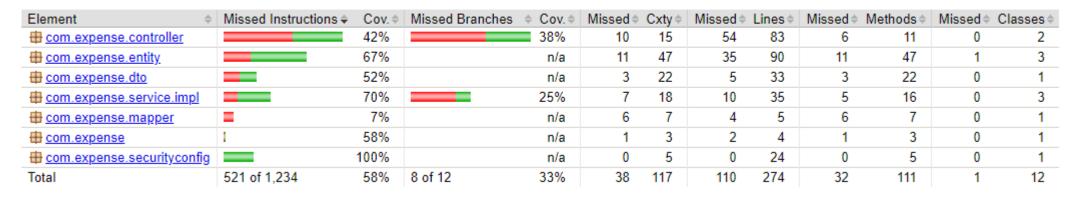


HO-2.4.1(HO-2) JaCoCo Reports

You can JaCoCo report at below location in container:

/var/jenkins_home/workspace/<your pipeline project name> /target/site/jacoco/index.html

ExpenseApp





HO-2.4.1(HO-2) Get JaCoCo reports using tomcat

- Steps are given in PMD slide deck for below actions:
 - Setup tomcat server
 - Modify tomcat-users.xml
 - Modify Server.xml
 - Verify tomcat web app manager UI



HO-2.4.1(HO-2) Get JaCoCo reports using tomcat...

- Create a putty duplicate session
- Run below commands:
 - pwd
 - **Is**
 - sudo docker container ls –a

Note down the container id from above command where jenkins is up & running and me tion in below command

 sudo docker cp <<container id>>:var/jenkins_home/workspace/verity-devopsex/target/site/jacoco myjacoco

Above command will create the "myjacoco" folder and move it to "/home/ubuntu" directory



HO-2.4.1(HO-2) Get JaCoCo reports using tomcat...

- Is
- sudo mv myjacoco /var/lib/tomcat9/webapps/
 Above command will move "myjacoco" folder from "/home/ubuntu" directory to "/var/lib/tomcat9/webapps/" directory
- **Is**
- cd /var/lib/tomcat9/webapps/
- **Is**



HO-2.4.1(HO-2) Get JaCoCo reports using tomcat...

- Go to tomcat web application manager page on browser
- Refresh the page
- You will see "/myjacoco" will be displayed under Applications > Path
- Click "/myjacoco" link
- See the jacoco reports on browser

