



Software Testing & QA Course - Assignment#3

Assignment Description:

Given the attached files, you will find the following:

1. Software-Testing-Assi3-Backend: which contains a spring boot application that is working as backend server for a TODO application.
2. Software-Testing-Assi3-Frontend: which contains an html file, and JavaScript file, that work as a frontend for the TODO application
3. Software-Testing-Assi3-PostmanCollection: which contain a collection for a postman, that has all the requests.

We need the following:

1. **For backend side:** write unit test cases using Junit, and any necessary libraries you need, to make test coverage for the application, and ensure the following coverage techniques are considered
 - a. Graph Coverage
 - b. Data Flow Coverage

And make sure that there is no overlap between test cases, or redundant ones. **Coverage should be at least 80% of the code.** Also, if any code changes are required that will help you in writing test cases, feel free to do it, and highlight these changes either in comments or in a separate .txt file

2. **For frontend side:** write test suite cases, either using robot framework, or selenium web driver, **to test at least 3 of the functionality in the application**, which are the following:
 - a. Add new TODO: verify that a user can add a new TODO, and after submit, it is added in the table and all text inputs are empty
 - b. Delete: verify user can delete a TODO, and it is removed from the table
 - c. Update completion: verify user can update the completion of TODO, by click the checkbox, and the table display it in the wright way.
 - d. Get all TODOs: verify that all TODO is displayed correctly
 - e. Get completed TODOs: verify that the table display only completed TODOs

Feel free to make any changes in the html file, if and only if, that will help in finding elements you need to complete the test suite case, and highlight these changes either in comments or in a separate .txt file



Deadline & Submission:

1. Teams: Form a team of 3-4 students from the same group or the same TA.
2. Upload it on Classroom with a file named:
A1_student1ID_student2ID_student3ID_GroupName.zip e.g., A1_20130001_20130002_S1_S2.zip
3. Cheating could lead to severe consequence

References:

<https://cs.gmu.edu:8443/offutt/coverage/GraphCoverage>

<http://cs.gmu.edu:8080/offutt/coverage/DFGraphCoverage>

<http://cs.gmu.edu:8080/offutt/coverage/LogicCoverage>