Indian Institute of Technology, Kharagpur
Department of Computer Science and Engineering
Software Engineering (CS 29206), Spring 2022

Assignment 6 – Submission of test plan and test cases

Grading guidelines:
1. *Zero marks for a submission if it does not pass the plagiarism test.*
2. *Break-up of Credits will be as follows:*
    (a) *Correctness: 30%*
    (b) *Unambiguousness / consistency: 20%*
    (c) *Completeness: 30%*
    (d) *Verifiable / Ranked for importance: 20%*

Total marks: 50

You are required to submit the documents and complete the implementation for the single project that has been assigned to your team. However, you should browse and brood over the entire problem set for your practice. Practice is especially important to learning the software engineering skills pertaining to requirements specification, design, testing, etc. Only reading the theory cannot make you a good software developer.

While doing the problem assigned to you kindly note the following:
•   The assignments are to be done in groups as assigned. Partners in a group are expected to contribute equally and hence will get equal credit unless there is documented evidence for unequal contribution.
•   All assignments in this set should be coded in C++ or Java or Python on Linux or Windows or MacOS platform. A combination of languages (and specific subsidiary languages for specific sub-systems like Javascript for webpage, SQL for database) may also be used. You should choose the language/s and platform based on the system you are implementing and justify the choice.
•   A portion of the last quiz will be based on the project and some presentation along with question answering will be used for grading.
•   Copying of assignments is considered serious offense. Both the person copying and the one supplying the copied material will be penalized.

Tips for solution:
•   If you cannot solve a problem, solve a simpler problem (by omitting some of the functionalities, details, etc.).
•   Now, add some of the functionalities you had omitted and see if you can solve this new problem. It may not always be possible to incrementally incorporate new functionalities into the simpler solution without any alterations to the solution already worked out. You might even have to rework (or drastically modify) your simpler solution to accommodate a new functionality.
•   Surely, it is more laborious to carry out incremental solutions than solving the full problem in one shot. But, it often works, and gives you new insights into the problem.

Task for Assignment 6:

You have already submitted Software requirements specification (SRS) document, along with software design in terms of use-case diagram and class diagram. Design the unit test plan for testing of features specified in the SRS document. You can refer to the IEEE-829 standard for structure of the document: https://jmpovedar.files.wordpress.com/2014/03/ieee-829.pdf. Also design the test cases corresponding to the test plan.

You should submit the test plan document in pdf format. Also submit the test cases for various scenarios corresponding to the test plan in a separate file. Submit a zip file containing both the files.