# **MILESTONE 4** -- SFT221 SCRUM Report and Reflection

All students are expected to attend the SCRUM meetings and to participate. Failure to do so will result in greatly reduced grades.

**GROUP**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_E\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Members Present**:

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| --- | --- |
| 1. Shovana Shrestha | 4. Tu Yin Hnit Aung |
| 2. Kusum Acharya | 5. Krish Sanjaybhai Patel |
| 3. Kemal Batu Turgut | 6. Roy Bryan D. Franck |

## Milestone 4 Tasks

**Deliverables due 4 days after your lab day:**

* Finish implementing/coding the functions.
* Finish implementing/coding blackbox tests. Store in repo, executed, results in Jira (and on corresponding test documents, and debugged.
* A set of whitebox tests as test documents (in an Excel file) with test data for the functions you created. At least 4 sets of test data are required for each function. You must have test cases for at least 6 functions (including all your custom function). Stored in the repository.
* Whitebox tests implemented (in the C++ testing project), stored in repository, executed, results in Jira and on corresponding test documents, and debugged (at least 1 SET is required).
* Updated requirements traceability matrix stored in the repository.
* Completed hook file (for EACH team member) for test automation stored in the repository.
* Completed scrum report including reflection questions answered.

**Rubric:**

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| --- | --- | --- |
| **Individual** | Group participation (includes GitHub commits and Jira usage) | 80% |
| Teamwork | 20% |
| **Group** | Implemented functions and main (well-designed, and documented) | 10% |
| Finish coding blackbox code (well-designed, written, and documented) | 5% |
| Whitebox test case document (well written, complete, good test data) | 10% |
| Whitebox test code (well designed and documented) | 20% |
| Updated requirements traceability matrix | 5% |
| Test execution (performed, results recorded, issues created) | 10% |
| Debugging (bugs fixed, documented, Jira updated) | 5% |
| Hook files | 10% |
| Git usage (used properly with good structure) | 5% |
| Jira usage (creates issues, tracks progress) | 10% |
| Scrum report & reflections | 10% |
| **Deadline** | 20% deduction for each day you are late |  |

**SCRUM Report**

**Summary of Tasks Completed or Delayed in the last week:**

Here you can list all of the tasks completed in the last week along with any tasks which could not be completed with a reason why they could not be completed.

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| **Member** | **Tasks Completed** | **Tasks Delayed/Blocked** |
| Tu Yin Hnit Aung | * **Tables in Scrum Report** |  |
| Roy | * **Implemented the functions and main** |  |
| Krish Patel | * Updated requirements traceability matrix |  |
| Kemal Batu | * **Reflections in Scrum Report** |  |
| Shovana Shrestha | * **White Box Test Case** |  |
| Kusum Acharya | * **White box Test Code** |  |
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For every task delayed or blocked, describe the reason for the delay or block, how it impacts the project and the proposed solution or workaround**.**

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| --- | --- |
| **Delayed or Blocked Task** |  |
| **Reason for delay or block** |  |
| **Impact on Project** |  |
| **Solution or work-around** |  |
|  |  |
| **Delayed or Blocked Task** |  |
| **Reason for delay or block** |  |
| **Impact on Project** |  |
| **Solution or work-around** |  |

**Summary of Meeting:**

A summary of the main points discusses in the meeting and the outcomes of the discussions.

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| Topic | Discussion Summary | Outcome |
| Deadlines and Due Dates | **We implemented the new deadline to be Thursday so that everything can be checked again** | **We were more productive and was able to finish our work more efficiently** |
| Dividing the task and roles | **Divided the members to do the task of the scrum, white box test, functions, and the matrix** | **Work was done more efficiently** |
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**Summary of Decisions Made:**

This will include major architecture and design decisions, testing decisions, prioritization of tasks, dealing with problems encountered and other major outcomes from the meeting.

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| Decision | Rationale |
| Changing the deadline to Thursday instead of Friday | Ensure that all tasks are done and can be checked through thoroughly. Tasks will not be rushed and will be clear and concise |
| Creating the scrum report after finishing all the other tasks | We can discuss what was done during the week and have a better understanding of the tasks and what was completed. |
| Prioritize the function implementation and white box test cases | These were the most important tasks that were to be done in this milestone. |
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**Tasks Attempted During Meeting:**

Each member is assumed to participate in the SCRUM meeting and contribute to the completion of the SCRUM report and reflections. Since the SCRUM meeting will not take more than 20-30 minutes, there is lots of time left to undertake some of the actual work tasks. In the table below, each member should list what they did to complete the SCRUM report, the reflections, and 1-4 other tasks they completed during the class period. If a task could not be completed, the student should indicate why this was not possible.

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| --- | --- | --- | --- |
| Member | Task Attempted | Time Spent | Complete? |
| Tu Yin Hnit Aung | * **Tables of the scrum report** | **1 hour** |  |
| Roy | * **Implement the functions** | **1 hour** |  |
| Krish Patel | * **Update matrix** |  |  |
| Kemal Batu | * **Reflections of the scrum report** | **1 hour** |  |
| Shovana Shrestha | * **Planning the white box test cases** | **1hour** |  |
| Kusum Acharya | * **Planning white box test cases** | **1 hour** |  |
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**SCRUM Tasks Selected for Next Week**:

The tasks each member has selected to pursue for this class or the next week.

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| Group Member | Task Description |
| Tu Yin Hnit Aung | **Tables in Scrum Report** |
| Roy | **Implemented the functions and main** |
| Krish Patel | Updated requirements traceability matrix |
| Kemal Batu | **Reflections in Scrum Report** |
| Shovana Shrestha | **White Box Test Case** |
| Kusum Acharya | **White box Test Code** |
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**Major Outcomes of Meeting:**

This is where you should highlight the major accomplishments of the class.

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| Outcome | Impact on Project |
| Agreed on changing the due date to thursday | **Made it more efficient and productive. Task were not rushed** |
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**Things That Went Well in This Meeting:**

Here you can highlight things which worked well. This indicates that the way you worked on these items is working and should be continued.

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| Topic/Work Item | Reason for Success |
| Dividing the work equally | **Everyone is satisfied with the way the work is divided** |
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**Things That Did NOT go Well in This Meeting:**

This is where you can list things which did not go well in the class. You should analyze why this happened and suggest how you can improve it next time. This will lead to the goal of *continuous process improvement*.

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| Topic/Work Item | Reason for Problem and How to do Better |
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**Reflections**:

Answer the following questions using your own words. Make sure that each answer comprises a minimum of 100 words.

1. After you run your blackbox and whitebox tests you are asked to record the results in both the original test document as well as in Jira. Explain why it is a good idea to record the results in both places.  
     
   After running both blackbox and whitebox tests, we were required to record the results in both the original test documents as well as in Jira. Recording the results in both places ensures that we are consistent in our documentation. This is because the original test documents serves as a repository of all the tests conducted while Jira provides a platform that centralizes all of the projects and the management of it all. Another point is that the test document helps us see all the details of each case. On the other hand, Jira gives a broader and wider view of the test program. When tracking all the results and cases in Jira, it helps integration of workflow like tracking tasks, issues, and progress. This will help us as developers to prioritize tasks accordingly. Lastly by recording the test results in multiple places, it provides a clear trail for testing activities, outcomes, and solutions. All these lead to better project management and quality of the project.
2. Why did we wait until the fourth milestone to write the whitebox tests?  
     
   We waited until the fourth milestone to write the whitebox tests so that most of the code and functions were implemented and completed. Only now in this milestone the code is mature and suitable enough for whitebox testing. The milestones prior to this only did blackbox testing which ensures the basic and core functionalities of the project. The whitebox tests cases were required in this milestone to tests the internal logic, edge cases and performance of each function. This type of approach of waiting to do the whitebox testing ensures the program is thoroughly evaluated for its reliability, which provides a solid foundation for the next phases of testing and writing functions for the program.
3. Pick one of the functions you created and list its name. For this function did you produce more blackbox or whitebox tests? Explain why your answer (more blackbox or more whitebox) happens for most functions.

The function that is created is enoughSpace function. For this function, more blackbox tests were created. Blackbox testing is making tests cases without any knowledge of its internal structure or workings. This function deals with determining whether or not there is enough space available in a truck for a shipment. It is primarily focused on the inputs and outputs of the function and not its internal implementation details. Usually most functions have more blackbox testing as it can be written without any detailed knowledge about the functions implementation. It can be more focused on specifications and requirements, which makes testing more straightforward. It also validates function requirements without knowing the internal workings of the functions. It is also solely based on inputs of user and the outputs. This requires the tests to test whether or not the system behaves as it should.

1. Explain the purpose of the automation hook for GIT and explain how it can improve the quality of the software in the project.

The automation hook for Git is a mechanism that automates tasks or processes at various stages of the version control workflow. It is scripts that Got executes after Git events such as committing changes, pushing commits, or merging branches. The purpose of hooks is to perform automated testing which helps ensure that workflow is more productive and efficient. The ways that it can improve the quality of the software is by providing automated testing. This ensures that code is meeting the standards and passing the tests as soon as it is committed to the repository, which reduces the likelihood of bugs. It can also check for coding conventions like indentation, variable naming, or code formatting. It can also be integrated with issue tracking systems like Jira to automatically update issue statuses. This is very useful when tracking the progress of issues and streamlining the development workflow.