# **Milestone 4 Scrum Report**

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

**GROUP**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_5\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Members Present**:

|  |  |
| --- | --- |
| 1.shuja lashkari | 4. Cristian David Vargas Marin |
| 2. Phuong Bac Nguyen | 5. |
| 3. Maryam Jawed | 6. |

## Milestone 4 Tasks

* 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 in the repository, ensuring it shows both passed (green) and failed (red) tests.
* 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) | 10% |
| Updated requirements traceability matrix | 10% |
| Test execution (performed, results recorded, issues created) | 5% |
| Debugging (bugs fixed, documented, Jira updated) | 5% |
| Hook files | 15% |
| Git usage (used properly with good structure) | 5% |
| Jira usage (creates issues, tracks progress) | 15% |
| 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** |
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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 |
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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 |
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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? |
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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 |
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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 |
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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 |
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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. How did analyzing the internal logic and structure of the code help you design effective white-box test cases?

By diving into the internal logic of the code, I was able to design effective white-box test cases that ensured everything worked as intended. I started by verifying the functionality, making sure the code handled normal inputs correctly. Then I pushed it to its limits by testing edge cases—like absurdly high numbers, negative values, zero, and other unexpected scenarios. This approach helped uncover potential issues that might arise from unusual or invalid user inputs. By covering all these bases, I reduced the chances of bugs slipping through, making the software more reliable for real-world use. It’s like stress-testing the code to ensure it can handle anything users throw at it so doesn’t crash the program

1. How did using automated unit testing tools simplify or enhance your testing process? Reflect on the advantages and potential limitations of automation compared to manual testing methods.  
     
   Using automated testing simplified my testing process by saving time and reducing human error. Instead of manually running repetitive tests automation allowed me to execute hundreds of test cases in seconds, allowing me to catch bugs early in development. It also ensured consistency, as automated tests performed the same steps perfectly every time. However, automation isn’t perfect. Writing and maintaining test scripts required effort, and some issues, like usability or edge cases, still needed manual testing. While automation is very fast and precise, manual testing has its pros too by uncovering issues automation might miss. Together, they created a balanced approach, making testing faster and more thorough while keeping the focus on real-world user experiences.
2. How did you document and communicate the bugs you identified? Reflect on the importance of clear and detailed bug reports in ensuring that issues are effectively resolved by the development team.

I documented bugs using a tool called Jira, which acts as a shared workspace where you can create posts and track progress on specific parts of the code. Whenever I ran into an issue, I’d post it on the board, and my team members could see it and help me resolve it. Writing a detailed report was crucial—without clear information, we’d waste time going back and forth. I made sure to include things like before-and-after code snippets, photos or videos, a description of the problem, and my thoughts on what might be causing it. This way, everyone was on the same page, and we could solve issues efficiently. Clear communication saved us a lot of time.