# **MILESTONE 3** -- SFT221 SCRUM Report and Reflections

This report should be completed in the class and submitted at the end of class. Late submissions cannot be accepted without prior approval of the instructor.

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

**Members Present**:

|  |  |
| --- | --- |
| 1.Asem M | 4.Kiki |
| 2.Thomas Lewis | 5. |
| 3.Hla Myint Myat | 6. |

## Milestone 3 Tasks

In this milestone you will create issues to design the functions, design all of the functions you need to complete the project and store the specifications in the repository. As soon as the specifications start to be produced, you can start to design the blackbox tests (what they test, how to perform them and test data). Once tests are written, they can be implemented and added to the repository and any team members not otherwise busy can start to implement the functions. You will also build a function-test matrix that shows the blackbox tests for each function. This will be maintained through the testing cycle as new tests are added.

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

* A set of AT LEAST 4 function specifications stored in the repository.
* A set of blackbox tests as test documents 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.
* Start writing blackbox test code (for the functions above) and store in repository (at least 1 is required for this milestone).
* Start implementing the functions and store them in repository (optional).
* A requirements traceability matrix added to the repository and shows the mapping between the requirements and test cases.
* Updated Jira project to show activities and progress.
* 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** | Function specifications (documented, complete, well-written, added to the project) | 10% |
| Blackbox test cases document (well-written, complete, good test data) | 15% |
| Blackbox test code (well-designed and documented) | 10% |
| Functions implementation (coded in the C project & well documented) | 10% |
| Requirements traceability matrix (complete, added to GitHub) | 10% |
| Git usage (used properly with good structure) | 5% |
| Jira usage (creates issues, tracks progress) | 10% |
| Scrum report & reflections | 20% |
| Meets deadlines | 10% |

**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** |
| **Asem M** | **Testing** | **N/A** |
| **Thomas Lewis** | **Data Structure** | **N/A** |
| **Kiki** | **Test Plan** | **N/A** |
| **Hla Myint Myat** | **Scrum Report & Reflection** | **N/A** |
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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** | **N/A** |
| **Reason for delay or block** | **N/A** |
| **Impact on Project** | **N/A** |
| **Solution or work-around** | **N/A** |
|  |  |
| **Delayed or Blocked Task** | **N/A** |
| **Reason for delay or block** | **N/A** |
| **Impact on Project** | **N/A** |
| **Solution or work-around** | **N/A** |

**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 |
| Function Specification | **Function spec doc written according to new functions written on h file added last week.** | **Done** |
| Testing Functions | **Black Box testing** | **Testing Functions written** |
| Testing Docs | **Completing Testing Doc** | **Done** |
| Jira | **Task Schedule setup in Jira** | **Done** |
| Git | **Git update to each branch** | **Done** |
| Scrum & Reflection | **Discussed and filled** | **Done** |
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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 |
| Function Specs | Added function specs on existing h file(finder.h), and documentation completed |
| Testing Decision | We have decided to do tests on map generating and position detection on testing. |
| Testing Functions Implementation | Black box cover basic functionality |
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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? |
| Kiki | **Function Specification** | **1 hr** | **Yes** |
| Asem M | **Testing Functions** | **1 hr** | **Yes** |
| Thomas Lewis | Testing Docs | **1 hr** | **Yes** |
| Hla Myint Myat | **Scrum & Reflection** | **1 hr** | **Yes** |
| All | **Jira and GitHub Project page updated and assigned** | **30 mins** | **Yes** |
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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 |
| Kiki | Function implementation |
| Thomas Lewis | Debugging |
| Asem M | Test Execution including White box testing codes and MS3 Blackbox testing |
| Hla Myint Myat | SCRUM , Reflection |
| All | GitHub, Jira |
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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 |
| Function specs | **The data structure implemented in MS2** |
| Testing codes | **Black box testing code implemented** |
| Testing doc | **Documentation completed** |
| Scrum Reflection | **Overall 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 |
| Git | **Useful for version control and keeping track of changes** |
| Documentations | **All documented, testing and function specs** |
| Discussion | **Tasks Equally contributed** |
| Scrum | **Overall MS3** |
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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 |
| N/A | **N/A** |
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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. In this milestone, we write the blackbox tests but not the whitebox tests. Explain why we can write the blackbox tests but not the whitebox tests.   
     
   Rather to writing Whitebox tests, the focus of this milestone is on writing Blackbox tests. This is because our understanding of the internal operations of the system under test is still somewhat restricted. Designing tests based on the expected behavior and functioning of the system is more practical than diving deeply into its internal structure or code. By using Blackbox testing, we can assess the system's performance from the viewpoint of the end user without having to rely on internal implementation details.
2. Explain why we need the function-test matrix and why it is important in a large project.  
     
     
   In large projects, the function-test matrix is an organized presentation that links functions or features with their corresponding test cases, guaranteeing thorough test coverage, traceability, risk assessment, and efficient resource allocation. Regression testing is supported communication is facilitated, and it provides helpful records for compliance and future reference.
3. Other life cycle models left team members idle while waiting for parts of the project to be completed. Describe how an agile model, like the one we are using, avoids this problem and keeps the whole team busy all the time. Does this make managing the project simpler or more complex and why?  
     
   The project is broken up into smaller units called sprints in an agile model. Every sprint has a defined objective and time limit, which keeps the team active and focused.

To maintain team involvement, they collaborate closely and have frequent communication. By doing this, it helps to make sure that everyone may help one another and is informed about the project's development. The agile model makes project management easier by encouraging teamwork, setting clear objectives, and facilitating simple adaptability. The team ensures they are on the correct track by working in smaller increments, getting feedback frequently, and improving their work continuously.