# **MILESTONE 2** -- 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**: **SFT221 NEE group1**

**Members Present**:

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| --- | --- |
| 1. Kim Ming Chau | 4. Gordon Tan |
| 2. Hak Kan Poon | 5. Yuhong Fan |
| 3. Elvin Karikari | 6. |

## Milestone 2 Tasks

Some of the software for the project has already been written for you and is available on Blackboard. You must use this in your project and every team should add it to the source code for their repository. Anything in the main function is simply for demonstration purposes and can be replaced. The software you are being given has not been tested and you will need to test it.

You need to study the problem and the code provided for you and then:

* Add any new data structures you will require This will require a thorough analysis of the problem and the existing software. This should be done by creating a new header file in the directory where the rest of the source code has been placed. You do not want to go back and modify it later if you can avoid it as it will slow the project.
* Create a test plan for the project by replacing the text in the supplied test plan template with your test plan.

**Deliverables Due at End of Lab**

* Completed SCRUM report & reflections

**Deliverables Due within 48 hours of lab**

* An analysis of the problem (no written artifacts produced),
* A series of data structures created as header files and stored in the repository,
* A test plan stored in the repository.

**Rubric**

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| --- | --- | --- |
| Individual | Group Participation | 75% |
| Teamwork | 10% |
| SCRUM Report | 15% |
| Group | Data structures (complete, correct and well-designed) | 20% |
| Test Plan (complete, well-written) | 20% |
| Git Usage (used properly with good structure) | 10% |
| Jira Usage (creates issues, tracks progress) | 10% |
| Meets Deadlines | 15% |
| SCRUM Report and Reflections | 25% |

**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** |
| **Kim Ming Chau** | **Add professor to the GIT account & Reflection 1** | **Git Repository** |
| **HK Poon** | **Setup Jira project site, Add professor to the Jira project site & Reflection 2** |  |
| **Elvin Karikari** | **Reflection 3** |  |
| **Everyone** | **Setup Jira Account & Setup GIT account** |  |
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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** | **Git Repository** |
| **Reason for delay or block** | **Group member Fan didn’t reply to anything before the Milestone 1 due date** |
| **Impact on Project** | **One less person to work on the project** |
| **Solution or work-around** | **Other teammates need to do more part and maybe kick Fan out of the group** |
|  |  |
| **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 |
| Where is the fifth member - Fan | **Fan replied email to Poon and Poon asked Fan to join the Microsoft Team through email** | **Fan responded in the team on Sunday (9th July 2023) after our meeting** |
| Data structures | **It needs to add Truck and Shipment** | **Tan shows the other teammates his work, and it looks good** |
| Test Plan | **Karikari, Poon, Chau, and Fan will separate the test plan template to four parts** | **Karikari works on 1-4, Poon works on 5-8, Chau works on 9-12, and Fan works on 13-17** |
| Scrum report | **Tan and Chau will work on the report** | **Tan works on reflection 2 & 3 while Chau does the rest** |
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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 |
| Create struct Truck | It could store how much weight and box size left for that Truck |
| Create struct Shipment | It could store how much weight, box size and destination for the Shipment |
| Git branch | We don’t think it is necessary to create different branch since we could just update in the main branch |
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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? |
| Gordon Tan | **Create Data structures in header file and upload to GitHub** | **2 hrs** | **Y** |
| Gordon Tan | **Reflection 2 & 3** | **30 mins** | **Y** |
| Elvin Karikari | **Test Plan 1 - 4** | **1 hr** | **Y** |
| HK Poon | **Test Plan 5 - 8** | **30 mins** | **Y** |
| Kim Ming Chau | **Test Plan 9 - 12** | **30 mins** | **Y** |
| Yuhong Fan | **Test Plan 13 - 17** | **1 hr** | **Y** |
| Kim Ming Chau | **Reflection 1 & others in Scrum report** | **30 mins** | **Y** |

**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 |
| Elvin Karikari | Function Specs (documented, correct, complete, well-written) |
| Yuhong Fan | Test documents (well-written, complete, good test data) |
| Gordon Tan | Test Code (well-designed, written and documented) |
| Kim Ming Chau | Git Usage (used properly with good structure) |
| HK Poon | Jira Usage (creates issues, tracks progress) |
| Kim Ming Chau | SCRUM report & reflections |
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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 |
| Header file created | **Tan created the header file; therefore, other teammates could write the test plan base on it** |
| Test Plan separated | **Karikari, Poon, Chau, and Fan could focus on the topic they choose to create the Test Plan instead of creating a whole one by oneself** |
| Scrum Report separated | **Tan and Chau could focus on their own part in the scrum report** |
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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 |
| Work separate | **All of us are so willing to do whatever necessary to finish the work** |
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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 |
| Member Fan | **Reason: Fan didn’t respond to the team and eventually showed up on Sunday (9th July 2023) evening**  **Solution: Fan immediately signed the contract for Milestone 1, joined the git and jira, agreed to work on Test Plan part 13 – 17, and apologized for absent in the beginning of the project** |
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**Reflections**:

1. In this milestone you have been asked to analyze a problem and design software(functions) to complete the solution without actually writing the software.
   1. Is this process more difficult than just writing the software to complete the project? If so, why is it more difficult? If not, why is it easier than just writing the software?  
      Ans:  
      It is actually more difficult than just writing the software to complete a project. This is because we need to consider different aspects and carefully evaluate how the functions will work in the program to meet the requirements and effectively address the problem. These aspects include functionality, architecture, data structures, algorithms, and other edge cases. Without real code, we cannot determine if our design meets the requirements or not. Therefore, we need to spend more time checking for problems that the original functions cannot fix, and then consider what data structures and functions are needed to meet the requirements.
   2. Describe two advantages of developing software in this manner rather than just moving on to writing the functions without writing specifications first.  
      Ans:  
      There are multiple advantages to developing software with a well-defined analysis and design phase, with collaboration and clarity being two of the most significant. Regarding collaboration, the analysis and design phase facilitate effective collaboration among team members. It provides a shared understanding of the problem and solution, enabling better communication and coordination throughout the development process. In terms of clarity, analysis and design provide a clear pathway for software development. They help team members understand the requirements and objectives of the software, ensuring that everyone is on the same page. Overall, both advantages help everyone in the team to clearly work in the same way.
2. Why is it a good idea to create a test plan? Describe at least 3 advantages of test plans.  
   A test plan is useful to create clear guideline objectives and give a much better sense of direction and organization of where to take the project. It’s also important to understand the scope of the project to make sure not too much time and effort is wasted on something that is not necessary and it’s within the right boundaries in terms of scheduling. We can also think about what necessary resources we need to gather before carrying tasks out and there’s a real sense of cohesion and efficiency with everyone following the same plan.
3. Describe the process you used to analyze and understand the existing software.

What I did was first take some time to carefully read the entire project PDF provided for this project and gather some general information of what the specific scenario use case for this is with what the requirements were and how it works. It was helpful to look at what exactly the sample output is supposed to be and also asked the professor to clear up a few details. Then after this, I inspected the actual source code itself in the project, reading over the comments and the inner workings of every function with its implementation. I did a quick sample test of some of the functions and checked their output. All of this shaped my understanding of what data structures would be necessary to add to the existing software with how this is set up.