Sprint Backlog, Iteration #4, Group: 2

User Story	Task	Task assigned to	Estimated Effort per Task (in hours)	Actual Effort per Task (in hours)	Done (yes/no)	Notes
As a developer, I want to minimize the use of if statements in the code	Analyze the current if statements in the code base	Rens & Tim	5	5	Yes	
	Find appropriate replacement for 10 if statements	Rens & Tim	10	10	Yes	
	Implement those replacements	Rens & Tim	10	3	Yes	It was hard to find appropriate replacements, because we couldn't find good documentation of polymorphism and double dispatch. But after we found out about using HashMaps, the process went much quicker.
	If rare cases in which "if/case" statements cannot be refactored are found, send a document to the TA to explain why	Rens & Tim	Unknown	0	Yes	No such cases found.
As a developer, I want to extend my game to implement more features according to what our supervisor wants	Talk to the TA to obtain a new requirement for the game	Dennis	1	1	Yes	
	Write a requirements document for the extension given by the TA	Dennis	3	2	Yes	
	Send the requirements document to the TA for evaluation	Dennis	2	2	Yes	
	Write tests for the requirements	Dennis & Gijs	3	5	Yes	
	Implement the requirements	Dennis & Erik	8	10	Yes	
	Design a UML for the extension	Dennis	2	1	Yes	
As a developer, I want to be able to improve the codebase of other projects	Ask the TA to share the codebase of another group	Erik & Gijs	1		Yes	

	Grade the other group's codebase code quality according to the rubics	Erik & Gijs	5			
	Propose enhancements to the other group's codebase. Write this to a document (at least one A4-page with 2 cm margins and text in font size 10 is expected)	Erik	3			
As a user, I want to be able to play the game without bugs	Fix all checkstyle errors/warnings	Rens	6	6	Yes	
	Fix all findBugs errors/warnings	Gijs **& Rens**	2	1	Yes	Gijs handed over the job to Rens.
	Fix PMD errors/warnings	Tim	3	0	Yes	There was no need for this as the PMD errors were already fixed before. Should not plan this for next week.
	Let the build fail when the above requirements(checkstyle, findbugs and PMD) are not met	Gijs	2	2	Yes	
	Write JUnit tests for at least 80% coverage (excluding GUI)	Gijs	3	3	Yes	

Main Problems Encountered

Problem #1: Merging pull requests after changes
Description: This week, there was a pull request which was approved by most of us. After some time, a new commit to this branch was added before the pull request was merged. After the addition of the commit, the pull request was merged. This caused some bugs.

Reaction: When a new commit is added to a pull request, all reviewers should re-approve the pull request before it can be merged.

Problem #2: Vague pull request titles
Description: Often, there is misunderstanding of what exactly a pull request does. This is especially the case when a pull request touches a lot of lines.

Reaction: When making a pull request, a short description of what it does would be useful.

Adjustments for the next Sprint

- Now all PMD, Checkstyle and FindBugs issues are fixed, we should let the build fail when any of those fail in concurrent builds.
- Currently, checkstyle, PMD and FindBugs are set to off for all test suites. This is because we did not want to add javadoc for every test class. We should only disable the need for javadoc in the next sprint.
- No one should be able to merge a pull request if the build is not yet finished on Travis CI.
- When making a pull request that touches more than 50 lines, a more thorough description should be added to reduce confusion.