

Requirements and plans - “Scrumbledore”

Sprint 2 (Week of 22 September 2015)

Software Engineering Methods, 2015-2016

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Group 12

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1. FUNCTIONAL REQUIREMENTS

1.1. MUST HAVES

1. Issues with the player key event handling that cause certain key presses / releases to not register shall be resolved.
2. Two players shall be able to play together in a local Multiplayer game.
3. An enemy shall float encapsulated in a bubble if it is hit by a bubble.
4. If the player's fired projectile hits an enemy already floating in the bubble, the enemy in the bubble shall have the time floating in that bubble extended.
5. Once an enemy-encapsulating bubble is hit by the player, it shall be destroyed and drop fruit.
6. Once an enemy-encapsulating bubble's lifetime is depleted, it shall be destroyed and drop the enemy back in the level.
7. The player shall be able to choose what elements of the game must be logged from within the settings menu.
8. The player shall be able to view the score of the current game at the top the user interface.

1.2. SHOULD HAVES

1. Events being logged by the game shall be logged in a separate window in the Scrumbledore user interface.

1.3. COULD HAVES

1. A player shall snap to a wall if it horizontally collides to one.
2. A player shall be able to change the keys for actions within the settings menu.

1.4. WON'T HAVES

1. If two computers have the game Scrumbledore, they shall be able to play together on their own computers over the internet/system link, i.e. Online Multiplayer.

2. NON-FUNCTIONAL REQUIREMENTS

1. A line coverage of 75% (measured by Cobertura) shall be achieved.
2. Fix all CheckStyle/FindBugs/PMD suggestions as reported in the site generated by Maven.

SPRINT REFLECTION #1

For week 1.3 (starting 15 September 2015)

Game Bubble Bobble
Group 12, Scrumbledore

User Story	Task Assignee	Task ID	Estimated Effort	Actual Effort	Done	Notes
As a developer, I want to be able to trace the events in the game by viewing a log which is generated by the game.	David	1 2 3 4	3.5 hours	5 hours	Y	Added a GUI settings implementation, but is quite buggy.
<i>Code quality and verification.</i>	Niels	5 6	8 hours	8+ hours	Y / Largely completed	Write unit test cases and fix the majority the CheckStyle / FindBugs / PMD warnings
	Jesse	5	8 hours	8 hours	Y	Write component level test suites for untested or not 100% line/branch covered classes.
	Jeroen	7	2 hours	3 hours	Y	Solving exercise 1
<i>UML</i>	Floris	8 9	3 hours	3 hours	Y	Enhanced UML with multiplicity and additional classes. Also created the right hierarchies. Also answered the question of exercise 2.

<i>Responsibility Driven Design.</i>	Jesse	10	2 hours	2 hours	Y	Create CRC cards, model hypothetical and actual system.
	Jeroen	11	4 hours	2 hours	Y	See above
<i>Organisational</i>	Team Wide	12	1 hour	1 hour	Y	All members of the team spent an hour each refactoring code.

PROBLEMS ENCOUNTERED

- **Organization** We noticed that we had checkstyle, PMD, and findbugs errors that we only noticed at the end of the sprint and many of them were unable to be fixed without changing the code or breaking the code.
- **Duplicate effort** Niels and Jesse worked on test suites for the same classes. Estimated loss as a result of this: 8 hours.
- **Formatting** The handing in of documents was done in document formats that were not supported by Git, causing some documents to be handed-in in worse formats.

ADJUSTMENTS FOR THE NEXT SPRINT

- **Handing in** Assign at least one person dedicated to assembling the final hand-in report
- **Code quality** Fix CheckStyle/FindBugs/PMD suggestions before committing code.
If possible write test cases together with created code.

SPRINT #2

For week 1.4 (starting 22 September 2015)

Game Bubble Bobble

Group 12, Scrumbledore

High-level description / User Story	Task ID	Task	Task Assigned To	Estimated Effort / Time per Task
<i>Fix settings menu Fix logging settings implementation</i>	1	Fix the bug in the GUI that causes the logging selection to not function.	David Alderliesten	1 hour
<i>New features</i>	2	Implement the bubble encapsulation of enemies on contact with the bubble.	Floris Doolaard	3 hours
	3	Local multiplayer (2 player co-op)	Jeroen Meijer	4 hours
<i>Code quality and verification.</i>	4	Increase test coverage to 75%	Jesse Tilro Niels Warnars	8 hours
	5	Refactor existing code	Jesse Tilro	2 hours
<i>Refactor eventlisteners</i>	6	Move the setup of the <u>eventlisteners</u> from the gui class to a separate class.	Jeroen meijer	2 hours
<i>Additional logging functions</i>	7	Implement new logging functions such as, for example, logging of enemy execution and such.	David Alderliesten	3 hours
<i>Fix GUI label display</i>	8	Fix the score display within the GUI to display correctly.	David Alderliesten	1 hour
<i>Final hand in of the report</i>	9	Assemble the final hand-in version of the report for assignment 2 and make small improvements if needed.	David Alderliesten	1 hour