

Sprint Retrospective, Iteration #3

Context Project: Bust-a-move game

Group: 3

User Story #	Task #	Task Assigned To	Estimated Effort per Task (in hours)	Actual Effort per Task (in hours)	Done (yes / no)	Notes
I would like to see the singleton pattern implemented in the Game class.	Document why this pattern is selected	Winer	1/2	1/2	yes	
	Document how this pattern will be implemented.	Winer	1/2	1/2	yes	
	Make a class diagram of how the pattern is statically structured in the code	Winer	1/2	1/2	yes	
	Make a sequence diagram of how the pattern works dynamically in the code	Winer	1/2	1/2	yes	
	Implement the singleton pattern in the Game class	Winer	1/2	1/2	yes	
I would like to see the iterator pattern implemented in a BubbleIterator class.	Document why this pattern is selected	Calvin	1/2	1/2	yes	
	Document how this pattern will be implemented	Calvin	1/2	1/2	yes	
	Make a class diagram of how the pattern is statically structured in the code	Calvin	1	1/2	yes	

	Make a sequence diagram of how the pattern works dynamically in the code	Calvin	1	1/2	yes	
	Create BubbleIterator pattern with tests	Calvin	3	3	yes	
	Integrate the BubbleIterator class into BubbleStorage class	Calvin	2	2	yes	
I would like to see a 2-player mode added to the game.	Define what we plan on doing in the requirements documents	Maurice	1	1	yes	
	Make a class diagram of how the 2-player mode is statically structured in the code	Maurice	1	1	yes	
	Make a sequence diagram of how the 2-player mode works dynamically in the code	Maurice	1	1	yes	
	Add 2P button to the main menu	Maurice	1/2	1	yes	
	Add different keys which player 2 uses to control its game	Maurice	1/2	1/2	yes	
	Render both player screen in the same window	Maurice	1	8	yes	It did cost a lot of time to fix all problems that came up with adding 2 player mode. Like letting know Bubbles and PowerUps to which game they affect, where Score should be entered etc.

	Write documentation of the analysis and design of the mode	Maurice	1	1	yes	
I would like to see all Checkstyle errors solved	Solve all checkstyle errors (bring down to 0)	Winer	2	4	Yes	
	Add fail on checkstyle errors to Travis CI after all checkstyle errors have been resolved)	Winer	1/4	1/4	Yes	Credit to Jason
	Disable checkstyle javadoc on variable	Winer	1/4	1/4	Yes	Credit to Jason
I would like to see all PMD errors solved	Solve all PMD violations (bring down to 0)	Winer	1	1	Yes	
I would like to see all CPD errors solved	Solve all CPD violations (bring down to 0)	Winer	1/2	1/2	No	Moving the CPD problems to a method or a superclass is not the right solution since not all screens need those methods. We need to discuss about a better solution.
I would like to see a custom Observer pattern	Remove and substitute the Observer interface with our own.	Maurice	2	4	yes	In combination with the 2 player mode by letting the observers know how many players there are and from which the data is, it did cost more time.
I would like to see the Screen class removed	Remove useless Screen class from the code	Justin	1/4	1/4	yes	

I would like to better test coverage on	Achieve 70% branch test coverage on PowerUp class and subclasses	Calvin	2	2	no	Achieved 50% test coverage
I would like to have sounds playing in the game	Define what we plan on doing in a requirements plan	Justin	1	1	Yes	
	Design the sound implementation using RDD	Justin	2	2	Yes	
	Make a class diagram of how the sounds is statically structured in the code	Justin	1	1	Yes	
	Make a sequence diagram of how the sounds works dynamically in the code	Justin	1	1	yes	
	Implement sounds	Justin	2	2	yes	
	Write documentation of the analysis and design of the mode	Justin	2	2	yes	
I would like have a higher test coverage	Achieve 30% general branch coverage	Jason	3	3	No	22%, classes were either too small or too complex in order to be able to achieve 30%
	Achieve 60% branch coverage in the Bubble Class	Winer	2	2	No	58% branch coverage achieved.
	Achieve 50% branch coverage in BubbleStorage class	Jason	3	3	Yes	51% branch coverage, cobertura is counting private methods as part of total.

	Achieve 50% branch coverage in Cannon class	Jason	2	2	No	Static method and final classes requires PowerMock to test. Nobody was familiar with that framework.
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Adjustments for the next Sprint

- Reduce the amount of static methods if possible by changing/removing/moving them to other classes.
- Classes with many conditionals are too complex/have too many dependencies on other classes, which can't be tested properly using JUnit. Need to research how to test these using PowerMock