# Sprint Retrospective, Iteration # 3

Context Project: Blockchain Group: BullsBearsWolves

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 have a well tested code base with good documentation and free of bugs.	Documentation	Ashay	5	2	Yes	Because everyone added the documentation for the code that they wrote, I only had to check them and revise them somehow.
	Fixing BlockController + Tests	Ashay	5	7	Yes	
	Removing Bugs(PMD & Findbugs)	Ymte	2	0	No	Plugin didn't work on my computer.
	Unit Tests	Naqib & Luat	4	2	Yes	Because everyone wrote tests for their own new code, we only had to write tests for code that wasn't tested yet. This wasn't that much.
	Integration Tests	Jasper & Ashay	4	6	Yes	Updated the tests to use dependencies from other classes, like the real use case scenario does.

As a developer I want to display buttons for add, delete and display blockchain.	Tests	Luat, Naqib, Ymte	4	4	No	We've made a lot of progress, but we only need to make the connection with the UI.
	Implementation	Naqib	3	4	Yes	
As a developer I want to add functionality to buttons	Implementation	Ymte, Luat, Naqib	5	12	Yes	This was way more work than predicted.
	Testing	Ymte, Naqib	5	3	No	Still working on it
As a developer	Implementation	Jasper	4	4	yes	
I want to update block to contain its own hash value.	Testing	Jasper	5	3	yes	
As a developer I want to update the database handler to get the last sequence number of blockchain	Testing	Luat	5	2	yes	Tests wasn't necessary, but it affected other tests which needed to be altered.
	Implementation	Luat	5	8	yes	It took longer than expected
As a developer I want to add owner of blockchain to block as attribute	Implementation + Testing	Luat	6	0	Yes	Was already there.

As a developer I want to modify previous hash value of block to sender and receiver	Implementation	Jasper	5	4	Yes	A lot of functions had to be adjusted, since the constructor of the block has changed.
	Testing	Jasper	5	6	Yes	Almost all tests had to be adjusted, since the constructor of the block has changed.
As a developer I want my code to be updated to the new Factory Design Pattern. This involves editing or adding to the current code.	Implementation	Jasper	6	6	Yes	A lot of functions had to be adjusted to use the factory instead of the normal block constructor.
	Testing	Jasper	4	6	Yes	A lot of tests had to be adjusted to use the factory, instead of the normal block constructor.
As a developer, I want to update the overview of the contacts available upon adding a contact to the blockchain. (Code)	Implementation	Ashay	6	1	Yes	Didn't need much work.
	Testing	Ashay	6	1	Yes	Didn't need much work
As a developer, I want to update the overview of the contacts available upon revoking a contact from the blockchain. (Code)	Implementation	Ashay	6	1	Yes	Didn't need much work
	Testing	Ashay	6	1	Yes	Didn't need much work

As a developer I want to design a prototype	Research	Jasper	2	5	Yes	Almost everything had to be rewritten, since it is written in
of proof of concept for the architecture design with the main idea: the client keys are stored securely in the blockchain. (Architecture design)	Writing	Jasper	5	10	Yes	the point of view of a customer now. It has to be the point of view of another developer.

# Main Problems Encountered

### **Problem 1**

Description: Naqib was sick for two days, because of this our own deadlines weren't met. Reaction: Making tasks small, so other people are not depending on each others code.

# **Problem 2**

Description: We thought that tasks needed to be at most 5 hours long, this should be 4.

Reaction: Making them smaller.

## **Problem 3**

Description: Continuous Integration is hard to get working.

Reaction: Investing more time in figuring out how to get this working.

## **Problem 4**

Description: Tasks are not finished until friday, this causes loads of unexpected work on friday.

Reaction: Every task needs to be finished at the end of thursday.

#### **Problem 5**

Description: Architecture Design. Almost everything had to be rewritten, since it is written in the point of view of a customer now. It has to be the point of view of another developer.

Reaction: Now writing it in (hopefully) the correct way.

#### **Problem 6**

Description: The implementation of Continuous integration in Travis CI did not work out. It kept printing out 'Waiting for emulator to start'. After switching to Jenkins, we also could not get it working, because Jenkins did not accept the license for the Android sdk. In total we have spent almost a whole week to fix it, but we could not get it working, because the Android environment is ....

Reaction: Hopefully find a solution to fix it.

# Adjustments for the next Sprint

We are going to make smaller tasks, and assigning them is such way that these tasks aren't depending on other people's tasks. This way when someone isn't able to finish their own tasks, other people can go on with their tasks. Code should be test-driven, so first the tests, then the code, along with documentation in form of JavaDoc and updating the Architecture Design. This also means that there are no separate tickets for tickets for testing a class. This should be done immediately. There could be a ticket for testing and documenting, but this covers the whole project and is dedicated to optimize existing tests and documents. Every task also needs to be finished before friday, otherwise there will be sanctions, same goes for not attending and/or coming in late.