## Sprint Retrospective, Iteration # 4

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 draft of the structure of the	Document describing MainActivity page.	Ymte	3	А	no	
Graphical User Interface	Document describing OwnChain page.	Ashay	3	2	yes	Contacts Page
	Document describing ConnectedChain page.	Naqib	3	2	yes	This is actually the friends page.
As a developer, I want my block in my	Implementation	Luat	2	3	yes	
blockchain to have an IBAN attribute.	Testing	Luat	1	1	yes	
As a developer, I want to use my predefined blockchain to simulate a	Implementation	Naqib	4	9	yes	Took way more effort than I think it would. I was dependent on some other tasks.

transaction.	Testing	Naqib	4	8	no	Still did not manage to unit test this since it is an activity. Maybe I will find a solution today.
As a developer, I want to have a predefined blockchain, which	Implementation	Naqib	2	2	yes	
represents a chain of someone else.	Testing	Naqib	2	3	no	
As a developer, I want my code to contain the Adapter design pattern for the controller. This way it is easier to see how to use the methods of the class.	Testing	Jasper	4	4	No	An adapter design pattern was unnecessary, since we are only creating a block and thus there is nothing to adapt too. Instead I created an interface for the blockcontroller and refactored the databasehandler.
	Documentation in architecture design	Jasper	2	3	No	See comment above
	Implementation	Jasper	4	5	No	See comment above
As a developer, I want	Implementation	Ymte	2	С		

my application to display only items that are useful for users. The only ordered useful items are the name/description, IBAN	Testing	Ymte	3	С		
As a developer, I want my application to	Implementation	Luat	4	5	yes	
backtrace the owner name of a given public key via a function call so I can display it in my contact overview	Testing	Luat	1	1	yes	
As a developer, I want my application to display for each owner the trust.	Implementation	Ashay	4	4	yes	Is not merged, because I needed code from someone else to completely finish the functionalities, which was located in a PR which hasn't been merged.
	Testing	Ashay	4	0	no	Because I didn't have correct functionalities, it was impossible to write tests.
As a developer, I want to be able to display the	Testing	Ashay	4	0	no	Because I didn't have correct functionalities, it was impossible to write tests.

average trust value of all	Documentation	Ashay	2	2	yes	
blockchains in a fancy graph-like style.	Implementation	Ashay	4	4	yes	The graph is implemented, but not merged, needed functionalities, which was located in a PR which hasn't been merged.
As a user , I want to be able to confirm before I truly add or delete a contact because I might clicked add/delete accidently.	Implementation	Naqib	2	0	no	Since our plan changed and we do not have a add activity page, this is also not applicable.
	Testing	Naqib	3	0	no	Since our plan changed and we do not have a add activity page, this is also not applicable.
As a developer, I want my application to display a list of blocks, with the option to add blocks in ConnectedActivity and revoke in OwnPage.	Implementation of Connected Activity	Naqib	4	3	yes	Like I said before, we do not have a 'ConnectedActivity'. We have Pair button where we hardcoded a chain of blocks. Also we can not revoke blocks in the pair or friends page. I advise you to read the documents of the GUI.

	Implementation of OwnChain	Ashay	4	5	yes	Implemented, but not merged. See why above.
As a developer, I want to calculate the trust of a	Testing	Jasper	4	4	yes	
block. The trust level will depend on several points, like if the IBAN is verified, if the key has been stolen, etc.	Documentation	Jasper	2	2	yes	
	Implementation	Jasper	4	4	yes	
As a developer, I want my application to update	Implementation of Connected Activity	Naqib	2			This is done by Ashay.
the visual representation of the blockchain upon	Testing of Connected Activity	Naqib	2	2	no	Did not manage to test the activities.
modifying; adding or revoking the blockchain.	Implementation of OwnChain	Ashay	2	1	yes	Was almost trivial, but isn't merged, see why above.
	Testing of OwnChain	Ashay	2	0	no	
As a developer, I want	Implementation	Luat	2	4	yes	

my application uses methods from BlockController instead of DatabaseHandler	Testing	Luat	2	1	yes	
	Testing	Jasper	4	4	yes	
As a developer, I want to be able to encode	Documentation in architecture design	Jasper	2	2	yes	
and decode the personal information in a block, like owner/description.	Implementation	Jasper	4	4	yes	Have chosen for an AES-CBC encryption protocol.
	Testing	Ymte & Luat	4	7 (Luat), 7 (Ymte)	yes	Mostly worked together via Skype and TeamViewer.
As a developer, I want a part of the API that stores keys, contact names, and ibans	Documentation in architecture design	Ymte & Luat	2	0 (Ymte)		
	Implementation	Ymte & Luat	3	4(Luat), 6(Ymte)	yes	Same.
	Testing	Ymte & Luat	4	14(Luat), 12(Ymte)	yes	A lot of debugging was necessary to fix some failing tests.
As a developer, I want a part of the API to	Documentation in architecture design	Ymte & Luat	2	0.5 (Ymte)	yes	API interface is simple and did not need much

retrieve keys, contact names, and ibans						documentation.
	Implementation	Ymte & Luat	4	7(Luat), 4(Ymte)	yes	
As a developer I want my application to be able to log into/ register my own account on the app	Implementation	Luat	4	1	no	This is not implementable while staying decentralized.
	Testing	Lueat	3	0	no	
Fixing Continuous Integration	Implementation	Jasper & Ashay	4	25	no	Build is now passing, except CheckStyle is still not included. Travis for Android is just very hard to implement.
Issue #46: Remove sequence number from Block class and all other instance that uses it	Implementation	Luat	2	2	yes	This includes adjusting the tests.

Fixing latest develop merge error and a fatal error (See Issue #57 for more details)	Implementation	Luat	N/A	6	yes	FATAL error from latest develop merge, when the database handler get block back from database, it fails to assign the value sequence number to the new block it makes from the information from the block it got from the database.  This includes adjusting the tests.
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## **Problems Encountered:**

- 1. Ashay: Ashay couldn't finish his tasks because the code he was depending on, wasn't there. Even though he wanted to this himself.
- 2. Ashay: Again, some members were too late with finishing up their tasks. This caused a lot of stress on friday, and the code also contained some errors/bugs, which resulted in too little time to fix these.
- 3. Ashay: The pull request, which emerged on thursday, contained a lot of code from various team members. Because it emerged so late, and it was so big, code review took too long, and resulted in a lot of comments which needed to be fixed. The pull request emerged from improper branching: to obtain fixes from other branches, separate feature branches were merged into each other while not being merged back to the develop branch, which resulted in the big PR.
- 4. Ymte: The structure of the program took me a while to comprehend since the code is very complex. I do believe to have a proper understanding now however.
- 5. Ymte: Documentation for the API turned out to be quite small as there are not a lot of functions to expose. Most of the work happens behind the screen inside the complex machinery that is BBW.
- 6. Luat: There was a fatal error which I and Ymte discovered on Wednesday afternoon, many members were getting errors from their codes by using the methods that contain this error. This have been addressed and fixed on Thursday.

- 7. Luat: Some members are not available and waited a long time before responding to a PR fix, this delays the whole PR.
- 8. Jasper: It took a very long time, before everyone finished their task. A lot of the work was done in the final two days. This wasn't a good process. This was also probably the reason that not all tasks were finished and a mega PR was needed.