

ATOS BLOCKCHAIN

Bi-Weekly Report: Issue 3 – 18/11/2016

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Overview

The first week of the three weeks covered by the report has been our scenario week. Therefore we haven't been able to work on the project. As soon as the week finished we went back to working straight away. Andreas and Gabriel continued the research blockchain and the most suitable platforms that offer this technology as a service. They found that Ethereum was the most suitable for our needs. They have made real progress in the understanding of this technology and they have successfully managed to mine and handle ethers. In the mean time, Charles has finished the website. The main highlight of the week has been a change in the team's project. We are now creating a crowdfunding website, yet instead of just donating money, investors buy shares of the companies they most believe in. We believe that the higher reward we offer to the investors in relation to other crowdfunding website, can be a great incentive for people to use our platform. The innovative aspect of our project is that we use blockchain to make all the transactions as secure as possible.

MEETINGS HELD. PROJECT COMMUNICATION

9.11.2016

The first meeting of the period covered by this report was supposed to be held between us, and Jeremy, an acquaintance of Prof. Treleaven. He is a barrister and was supposed to help us with the creation of legal contracts. Instead, the meeting was held between us, another team participating in the Atos IT Challenge and another barrister working in the field of construction. Overall this was insightful but we realised it couldn't help us with our specific project.

10.11.2016

After this we met as a team to check how everyone was progressing in the role they had been assigned. Everyone showed good participation and effort. Furthermore we discussed alternative ideas to the one we started with and conceived the stock exchange platform described above.

11.11.2016

In this meeting we presented our new idea to John, our Atos supervisor, and he seemed very enthusiastic about it. As of this moment we decided to focus on this project.

14.11.2016

After meeting with John we met to discuss what the next step would be and to share research material between us. We decided that Charles would change the content of the website to fit the new project, whilst Andreas and Gabriel would continue with the research.

18.11.2016

We, and another Blockchain team, met with Hirsch, the PhD student helping us with technical difficulties. In this meeting he walked us through how to create a custom token using Solidity.

Besides the previously mentioned meetings, several discussions between the team members have been conducted using electronic means of communication such as Microsoft Skype and Facebook Messenger.

Tasks Completed

- Created private test network and established blockchain with genesis block.
- Created multiple ethereum wallets.
- Mined and transferred ether.
- Created smart contracts and deployed them on the blockchain.
- Finished website

Problems to be solved

- Charles needs to get up to date with blockchain technology after having spent time on the website.
- Figure out how tokens corresponding to shares will be created and distributed on our system

Plan for next two weeks.

- Find team name and project name
- Officially apply for the Atos IT Challenge
- Get everyone at the same level of understanding of blockchain technology
- Define the design pattern we want to use to develop our project and start programming some example contracts.
- Learn how to use testrpc and truffle which will be used to run our local network and create our ethereum app.

PERSONAL EFFORTS BY TEAM MEMBERS:

Andreas

During the past two weeks, I have been doing further research into Ethereum and Solidity. I have managed to setup a private test network where tests are to be carried out, created different accounts, mined ether and transferred it between the accounts and finally deployed multiple test smart contracts on the Blockchain. This has been a good learning experience and it really helped me understand how everything works together. Furthermore I arranged a meeting with two barristers and Team 13 where we were giving information concerning construction contracts – which we decided not to pursue – and kept in touch with our client as well as tutors and Prof. Treleaven, updating them on our progress. I have now started looking into truffle and testrpc, which we will most likely use for the development of our project.

Gabriel

For the past weeks, we have looked for a specific purpose for our smart contract templates. We have decided on shares, trading shares and crowdfunding with shares. We have looked into the ideal hyper-ledger that we would use and we decided on Ethereum. While Charles has worked on the website and Andreas has lead the research into Ethereum, I have done some initial research into the way shares and dividends work, how voting right in a company work and how we can manage them using Blockchain. I have also started setting up Ethereum on my computer and try understanding how it works.

Charles

I have started the two week period by finishing the team's website. Yet, as we changed projects half way through I have had to review it and update the content in order to better represent our new platform. I have furthermore added a "Tests" section to our website where we will be able to upload any relevant tests or experiments we have done with Ethereum or blockchain in general. In this section you can find rows of windows showing a preview of our work. When clicked theses will expand to show detailed content of the experiment. I have also started researching into Ethereum and Solidity as a language to write smart contracts.