

TEAM 36: UCLH PEACH and Microsoft - Cancer Team

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Project Overview

In the last two weeks, we gathered a set of initial requirements that are mandatory for the project. As our project involves dividing work between multiple teams, we basically had to, first of all, divide between the teams, and then team members, before actually researching and coming up with a set of requirements.

Therefore, we had a lot of meetings with other teams and agreed how to split tasks and subtasks, which then we had to investigate individually. Our team, team 36, was assigned to build 4 major tasks of the whole project: the secure login system for the project; the Role Based Access Control which is absolutely a necessity for dividing available interfaces on the app between different type of doctors; a collaborative document editing tool for each patient record; an internal chat system for doctors to use.

After coming up with initial results and discussing them with the client, we came up with a set of mandatory requirements such as:

- The Login system must be well encrypted so that patient data might not be lost, because this might lead to legal and ethical problems
- The registration of a new member should be done by an admin or by an email invitation, with a specific user role type assigned in the RBAC at the creation.
- The RBAC system should be well implemented, using a secure and trusted provider; it will control the whole application flow, depending on the user type
- The collaborative editing tool should allow different users (doctors) to add notes on a patient record simultaneously and they have to be saved with one click
- The internal chat system should be in real time and should allow users to easily communicate between them
- The internal chat system has to be linked with the ChatBot built by other team (this bot will be able to do various user queries by just receiving messaging commands)
- All the patient data should be taken from a specific database (openEMPI and EtherCIS - still in discussion; this is in collaboration with the team that handles databases)

We also have some optional requirements which the client would like to have, but which are not a necessity:

- Each patient page should have a button from which an user can send the patient page link to any other instantly.
- Set reminders with patient references from the chat application and display them as in app notifications, *etc.*

Apart from this, we also created our presentation website and decided what to do in the next two weeks.

Meetings summary

Meeting #1, MPEB 4.06, 14th October 2016

Description: We met with our TA and discussed the progress so far, giving him an idea of what the project is about and what the client is expecting from us. We presented our progress so far and what each of us had accomplished. Then, we also met with the client, along with the other teams working for UCLH and he splitted the requirements for each of the teams and set communication relationships with the teams with which we are linked.

Meeting #2, Engineering Cafe, 17th October 2016

Description: We met with 2 other teams from the project, with which we have to work closely, met in order to divide the tasks we had evenly between the teams and the team members. We found subtasks of the tasks we had and split them according to preferences and individual experience and abilities.

Meeting #3, UCLH, 17th October 2016

Description: Had a meeting with Dr Navin in order to present him the decisions we had about the subtasks and dividing them. He gave us a positive feedback and came up with some suggestions on where to look for available technology that might help in our subtasks. At the end we created a document with everything discussed, in order to have a plan for what is next.

Meeting #4, MPEB 4.06, 21st October 2016

Description: Met again with the client and presented him the outcome of the research and what we thought the system should be like. We also discussed with other teams about how our design should come together in one.

Meeting #5, MPEB 1.21, 25th October 2016

Description: Discussed more between the 3 of us about our findings so far and started creating our website. We decided how the presentation website should look like and how we are going to build it (using BitBucket as version control and classic HTML5, CSS3 and JavaScript for programming).

Meeting #6, Skype meeting, 27th October 2016

Description: Made some changes in the website's look and started created our report. Gathered together a list of initial requirements and decided to investigate which of them are feasible and which have to be re-discussed. We also shared our opinion about what each other accomplished so far.

Tasks completed and project progress

- Divided tasks for further research between us and the other collaborating teams
- Divided subtasks for each team member
- Came up with more clear requirements for each subsystem
- Conducted deep research in each subtask and came up with initial possible solutions
- Discussed the outcome of the research with the client and got feedback
- **The project is running on time**

Problems to be resolved:

- Find, through more and better research, the exact technology stack and the solutions for accomplishing each subtask as efficiently as possible, while also making easier for everything to get together smoothly when merging the subtasks
- Come up with a clear design of the whole project along with the other teams, since we need to have a common understanding of the outcome desired in order to design and build everything in the same manner.

Plan for the next two weeks

We plan to research the technology stack that might be helpful better and to compare the disadvantages and advantages of all the solutions. We also need to design an overall system, in coordination with the other teams of the project and agree on it with the client, before actually designing the subsystems in more detail. At the request of the client, we will try to establish a connection with UCL Jill Dando Institute, as the client thinks they can be our partners into this project, helping us achieving our goal and advising us on the way.

Individual contribution

Ovidiu-Horatiu Ilie

By being the team leader, I managed a big part of the client communication and set up the meetings with him. Furthermore, I also helped in establishing meetings with my team and with the other teams of the project. I also decided how to split subtasks within the team, with the agreement of the other team members.

As for the tasks I have completed, I decided to investigate more about the login and Role Based Access Control system of the project and came up with initial solutions: Apache Shiro and Microsoft Active Directory. I presented them to the client and he was pleased of the outcome of the research.

Georgiana Birjovanu

In the last two weeks I have planned and attended several meetings both with our client and the other different teams part of the PEACH project. After gathering the requirements for our team, I have started the research about the real-time collaborative document editing, checking different aspects about the servers used or compatibility properties. In the last laboratory session, I have presented to our client the result of my research and gathered even more details about the usage and integration of the feature within the whole Peach project. In the last week, I have also been working on our team website, by using HTML, CSS and Javascript.

Berat Baran Cevik

At the beginning of the last two weeks we split the tasks among our team members and I got internal chat part of the project. I made a lot of research about node.js since has been widely used in other parts of PEACH project and I started learning it through some online tutorials and experimenting. I also researched some frameworks which might be useful in the project. I used two of them socket.io and express in order to create a demo chat application. Besides, I attended all the meeting held with our client and within our team as well as the labs. In the following weeks I will continue researching and learning, and I will develop further and enhance the chat application.