



Project Description

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1. Background Description

„Children are our future” sings Whitney Houston in her song “Greatest Love of All”. This quote is repeated more and more often, however, it is not indicating the importance of children on their own, but the importance of shaping them. In the world of today, being educated is one of the most vulnerable qualifications (M. Schulte-Markwort, 2015). Bearing that in mind, a great attention to schools is being paid. The most desired competences in the 21st century, which should be cultivated by the educational system are: complex problem solving, critical thinking, creativity, people management, coordinating with others, emotional intelligence, judgment and decision making, service orientation, negotiation and cognitive flexibility (Alex Gray, 2016).

Unfortunately the traditional schooling in Poland is not adjusted to teaching the competences needed in the 21st century and is not preparing for life nor teaching vulnerable skills (Michał Pasterski, 2014). That is the reason why innovative, modern educational concepts and schools are growing in importance.

One of those schools is eNTe. eNTe is a small non-public primary modern free school basing on internal motivation of its students. It is increasing both critical and scientific thinking of its students. Moreover its focus is on teaching about democracy and with means of democratic tools. The rules in the school are established on the basis of consensus after discussions of the school community. Each week there is a plenum organized where the discussions are being held.

However, this indicates an issue. It is expected to establish the rules as a school community, i.e. all students and teachers together. Due to the fact that the meetings are being held at school, absent members (e.x. sick students or busy teachers) are not involved.

That leads to the needs of eNTe. It requires a system, where the discussions concerning the rules could be held. It would not only enable all students and teachers to participate in them, but also involve the parents. Moreover it needs a place to gather arguments and perform discussions on a variety of topics to enable the members of the community to acknowledge different opinions and basing on them come to compromises, as well as to increase their critical thinking and tolerance.

Another issue being faced by eNTe is homework. It is easy to forget the deadlines for assignments when they are being announced in advance of one or two weeks. That is why the school is in need of a place to store all the most important information concerning them: the topic, criteria, the number of students to deliver it together and the hand in date. Additionally, in the thought of being green, the institution desires a possibility for the students to deliver their homework electronically, in order not to waste paper.



Regarding the matter of teamwork, which is one of the core skills in eNTe, a place to hold chat groups would be valuable. Not only would it simplify work in groups at home, but also would leave a footprint for the teachers concerning how each person performed, as well as how the whole group cooperated on a homework.

Another issue is the parental matter. As the fundamental of eNTe is communication, parent-teacher-child meetings are being held approximately twice a semester. What is causing difficulties in this area is the logistics. The school needs a solution that would simplify scheduling meetings.

Last but not least the school is striving for excellence, in the meaning of exploring new means and solutions constantly. What that indicates, is the need of a maintainable system, in which there could be implemented new functionalities and made changes continuously.

Even though school dedicated systems already exist, none of them meets all of the needs of eNTe. eNTe is an individual and original school with specific problems, what resolves in a need of an unique system dedicated specifically for it.

2. Purpose

The purpose is to make a maintainable system for eNTe that provides communication between students and teachers in the term of carrying out discussions, posting and submitting homework, as well as arranging meetings with parents.

3. Problem Statement

The project focus is to provide communication between users to enable carrying out discussions, posting and submitting homework, as well as arranging meetings.

Questions to be answered are the following:

- What communication should be provided between users?
- What information should be displayed for specific user types?
- What is the needed security level of the login system?
- What are the needed information to arrange a meeting?



4. Delimitation

- The system will be adjusted only for eNTe's needs.
- The system will not fulfil the needs of the company with a medium importance, which are:
 - As a teacher I want to be able to start a discussions in specific classes, or for parents so that users can discuss a topic
 - As a teacher I want to post an announcement so that students and/or parents can see it
 - As a user I want to see discussion topics that are dedicated to me so that I can participate in them
 - As a teacher I want to mark a post as a parental post so that students can not see it and parents are informed by email
 - As a teacher I want to mark posts as important so that they will be shown as important and emails to users it concerns will be sent
 - As a parent I want to see homework posted for my child so that I will know about it
- The system will not fulfil the needs of the company with a minor importance, which are:
 - As a student I want to have my own profile so that teachers and my parents can see it
 - As a teacher I want to see who has seen a post
 - As a user I want to send private messages to other users so that we can communicate
 - As a teacher when creating homework I want to be able to create a chat group for group of students so that selected students can communicate among them
 - As an administrator I want to be able to archive one year back so that I can access it later
 - As an administrator I want to be able to choose the students that have failed the year so that the system can automatically update classes after the finish of the year of the rest of the students
 - *As a teacher I want to create a meeting discussion so that parents can sign up to meetings
 - As a parent I want to participate in meeting discussions so that I can schedule meetings with teachers



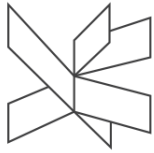
5. Choice of model and method

| What Partial problem | Why Why study this problem? | Which Which models/theories are expected to be used to solve the problem? |
|---|---|---|
| What information should be displayed for specific user types? | To restrict user access to information | Use Case requirements |
| What communication should be provided between users? | To allow changing information between users | Use Case requirements |
| What is the needed security level of the login system? | To provide user security | Requirements |
| What are the needed information to arrange a meeting? | To meet the clients needs | Use Case requirements |

6. Time Schedule

The total amount of work hours expected to be spend is 1100. That means 275 hours per person. The project is divided into 13 one-week sprints. Scrum meetings are planned as follows:

- 15.03.2018 - Inception ends - Elaboration starts
- 22.03.2018
- 29.03.2018
- 5.04.2018 - Elaboration ends/Construction starts
- 12.04.2018
- 19.04.2018
- 26.04.2018
- 3.05.2018
- 10.05.2018
- 17.05.2018
- 24.05.2018 - Construction ends/Transition starts
- 31.05.2018
- 7.06.2018 - Deadline



7. Risk assessment

| RISK | PROBABILITY | IMPACT | EFFECT | RISK REDUCTION ACTIONS | RESPONS IBLE PERSON | RESPONSE |
|---|-------------|--------|-----------------------------------|--|---------------------------|--------------------------------|
| Misunderstanding of needs of the customer | High | High | Time, full project completion | Maintain a constant communication with the customer, detailed analysis | Michał (product owner) | Implement project change |
| Change in user requirements | Low | High | Time, full project completion | Agreed requirements before | Michał (product owner) | Implement project change |
| Group member's illness | Medium | Medium | Time | Divide group work in small tasks | Daniela (scrum master) | Redistribute group work |
| Technical breakdown | Medium | Medium | Time, completion of key tasks | Work with reliable technical equipment, Backup important files | Daniela (scrum master) | Replace with alternative stuff |
| Group member's sabotage | Low | Medium | Time, concord among group members | Team-buildings | Daniela (scrum master) | Redistribute group work |
| Unrealistic planning and scheduling | High | High | Time, full project completion | Detailed pre-analysis of time schedule | Daniela (scrum master) | Take out features |



Sources of information

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