



Project Description

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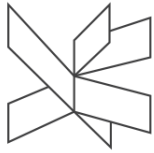


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Background Description

„Children are our future” sings Whitney Houston in her song with the same title. 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 school is being paid. The most desired competencies in the 21st century, which should be cultivated by the educational system are: interpersonal skills, self-discipline, creative, innovative thinking, knowledge of foreign languages, interpersonal skills, communicativeness, teamwork, mobility and flexibility (Institute for the Future for the University of Phoenix Research Institute, 2009).

Unfortunately the traditional schooling is inclined toward passing tests instead of preparing for life and teaching vulnerable skills (Daniel H.Pink, 2011). 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, modern, free school basing on internal motivation of it's 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 are homeworks. 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.

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.

Eventhough 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.

Purpose

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

Problem Statement

Questions to be answered are the following:

- How to store data regarding teachers, students and their activity in the system?
- How to display different information for different user types?
- How to make the system easy to extend and provide new functionalities?
- How to provide communication between users?
- How to make a secure login system?



Delimitation

- The system will not be a web service.
- The system will not send sms's.
- The system will be adjusted only for eNTe's needs.
- The system will not store files.
- The system will be only for members of eNTe school, not for members of the kindergarten as well

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?
How to store data about users and their activities?	To enable an easy access to the data	Using PostgreSQL
How to display different information for different user types?	To restrict user access to information	Dynamically changing GUI
How to make the system easy to extend and provide new functionalities?	To have the possibility of developing the system further - i.e. database compatibility	Use UML modelling and design patterns
How to provide communication between users?	To allow changing information between users	Using client/server architecture and sockets
How to make a secure login system?	To provide user security	Using SHA hash function for encrypting passwords



Time Schedule

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



Risk assessment

RISK	PROBABILITY	IMPACT	EFFECT	RISK REDUCTION ACTIONS	RESPONSE
Change in user requirements	Low	High	Time, full project completion	Agreed requirements before	Implement project change, postpone deadline
Group member's illness	Medium	Medium	Time	Divide group work in small tasks	Redistribute group work
Technical breakdown	Medium	Medium	Time, completion of key tasks	Work with reliable technical equipment, Backup important files	Replace with alternative stuff
Group member's sabotage	Low	Medium	Time, concord among group members	Team-buildings	Redistribute group work
Unrealistic planning and scheduling	High	High	Time, full project completion	Detailed pre-analysis of time schedule	Postpone deadline



Sources of information

Michael Schulte-Markwort, 2015. Burnout-kids. Wie das Prinzip Leistung unsere Kinder überfordert. Maslow A.H. (1943). A theory of human motivation. Psychological Review, 50, 370–396. [Crossref](#) [Accessed 07 March 2018]

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