Project Plan

Project Database

Highschool Helen Parkhurst

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Table of Contents

1 Introduction

1.1 Context

High School Helen Parkhurst, located in Almere, has about 1700 students whom follow classes at three levels (VMBO-T, HAVO, and VWO[1]). Most of the students are following the regular classes and take regular exams, however for some students this is impossible, either due to illness, or impractical, due to their implication of performing sports on a (semi) professional level. Consequently to those circumstances those students miss classes and important lessons, thus leading to a situation which no one wants but to which no one has yet found a solution for this problem.

1.2 Problem

The problem which is complicating this situation is that classes are mandatory by law, unless school can attest to students having valid reasons to be absent. Thus for this reason the Helen Parkhurst's teachers have to keep a record of absentees, therefore the students which are physically unable to attend this can give rise to a lot of not only bookkeeping to do but potential penalties in their school record. This is not the only issue with Helen Parkhurst's students, who are unable to attend classes, but they as well miss handouts given during classes and essential instructions of completion for their courses. Therefore, in order to provide each student with a chance at education, the development of a web application is vital according to the current needs.

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[1] Lower professional education, Higher General Secondary Education, pre-university education.

2 Objectives

2.1 Goal

This part will explain the goal of this project referred in the introduction. The introduction shows the real need of developing an application which will allow students, who are physically unable to attend lessons, the opportunity to remotely attend lectures. Therefore, the goal of the project is to provide High School Helen Parkhurst with an application which will allow students to take classes in situations where they are physically unable to attend, for example due to high-level sport activities or long-term illness. Our group will focus on creating, developing and implementing a web application with which students can virtually attend and take classes over the internet, in a way which gives the teacher control over the learning activities, and have the disturbance level as minimized as possible.

3 Central research question and sub-questions

The main research question describes the fundamental focus of our project in a short sentence. The main question is then further divided into sub-questions to ensure a steady step by step development of the application and providing answers that will eventually answer the main research question.

3.1 Research Question

How to implement a remote access, in order to provide the High School students who are physically not able to attend classes, with a live access to the class lecture and implement a method for tracking their participation?

3.2 Research Sub-Questions

1. Which type of remote access will suite for purpose and how to implement it?

2. How to track student's attendance during such classes?

3. What data about students should be stored and how?

4. How to implement an interface, attendance tracker and connection to the data storage for such an access?

4 Description of assignment

Our team was provided with a demo project and a library, all of which have been provided by VoiceWorks[2] in Almere, which have the fundamentals needed to be implemented in the project. The library contains the basic login with two input fields and a submit button. The user logins, which will be used during the initial development process of the application, have been divided among the teams each receiving 30 user logins. Included in the library are also a rudimentary chat, where the student and teacher can send messages, as well as a VoIP video call, where one can start video call and end the video call. The available demo software is a web application where teachers can create classes and add students to the class as well as interact and see the chat conversation in which the students converse.

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[2] VoiceWorks is the leading provider of mobile telephony, fixed telephony, UC and data solutions for the businessmarket.

5 Scope of the assignment including preconditions

This section describes the scope of the project, the expectations of the tasks and the parties involves. MoSCoW[1.1] is a business requirements technique that is used to describe in this sections with following contexts. Below, there is first a description of the abbreviation is given, followed by a detailed matrix applicable to this research.

MUST (M)

Defines a requirement that has to satisfy for the final solution to be accepted.

SHOULD (S)

This is a high priority requirement that should be included if possible within the delivery time box. Workarounds may be available for such a requirements and they are not usually considered time-critical or must-haves.

COULD (C)

This is desirable or nice-to-have requirement but the main solution is still accepted even if this functionality is not included in the final project.

WON'T or WOULD (W)

This represents requirement that the stakeholders want to have implemented but agreed that it will not be implemented in the current version.

Task	MoSCoW
Have a homepage with all the subjects, which the students can click and will direct him/her to the desired subject (and having a heading/text/icon saying if there are any online/live lectures given at the time the student is being logged in).	MUST
Have implemented a button for the student, when he/she will have a question they can press the button and the teacher will the unmute the student and they can ask their question.	MUST
Have a mute/silence button, so that the student won't disturb the class.	SHOULD
Make a way for the teachers to upload any handouts if necessary, and a way for the students to hand in their assignments.	COULD

Show full conversation of the chat, not just the last message which was sent.	SHOULD
Make an esthetic and user-friendly interface.	COULD

6 Deliverables

One of the expected deliverables for this project is the web application, which will connect and use information from database of users. Furthermore, the web pages will be built by using HTML, CSS, JavaScript with specific libraries, and PHP. All the code used during the development of the project will be posted and found GitHub.

A second deliverable which is expected in this project is the documentation. This includes the functional, users and testers, as well as the technical, installation manual and design decisions, tasks.

The research report is the third deliverable for this project, while as the forth deliverable is the process archive and report.

7 Development problems

Problems are inevitable in a project, some of the problems that might arise during the development of the project are related to the time and resources both of which affect the outcome quality of the web application. Considering that there are less than 5 Weeks to develop a workable application, and that this project requires about 80 hours per person, it is very risky to try and implement any sophisticated back end and front end work.

One of the major problems was the start of the project, since the information provided was lacking and incomplete, as well as not being able to interview and ask the client themselves what they would like to be implemented in the web application.

Although there were several major problems involved, even before clearly understanding what our client wants, we managed to overcome all these with the support of the teachers and brief problem statements from High School Helen Parkhurst. Some of the problems involved were that the much expected interviews with the students of Helen Parkhurst never took place, thus alternative routes have been taken and our teacher and coordinators have landed us a hand. By trying to put themselves in the posture of the client, they firmly gave us answers to our curiosities if what the project's priorities were.

8 Communication schedule

In this part the details of parties involved in the project are listed, as well as the ways of communication and meeting schedule.

Name: Harald Drillenburg

E-mail: Harald.Drillenburg@INHOLLAND.nl

Meeting Schedule: Every Friday face to face.

Name: Belinda Kroes

E-mail: Belinda.Kroes@INHOLLAND.nl

Meeting Schedule: Every Friday face to face.

Name: Milos Radujkov

E-mail: Milos.Radujkov@voiceworks.com

Meeting Schedule: Through e-mail, e-mail must be less than 150 words, and must be 1 e-mail per student and week. E-mails will be read on Wednesdays and replies will be sent on Fridays at 15:00.

Name: Semida Andreicha

E-mail :   570027@student.inholland.nl

Social Media: Facebook: Semida Andreicha

Meeting Schedule: Every Friday face to face, and on social media any time.

Name: Natalia Karpova

E-mail   564403@student.inholland.nl

Social Media: Facebook: Natalia Karpova

Meeting Schedule: Every Friday face to face, and on social media any

                     time.

Further details:

    Every Friday there will be a physical meetings at University, other than Friday a physical meeting will take place if a member asks or feel the need to discuss a problem or concern. The meetings will take anywhere from a minimum of 20 minutes to how much time is necessary to complete a task or a phase assigned. The agenda for our group can be seen in section 10.3 under the name Task and the Start and End date of our tasks as well. The location of placing and storage of documentation will be mainly done on GitHub, however a backup will always be placed on Facebook as well as on USB drives.

9 Research strategy

The research strategy is carried out as following:

1. The design for our research will be having implemented an interview with the teachers and students, gathering both qualitative data, asking and receiving detailed answers, and quantitative data, through the survey. Add the list of questions you have drafted.

2. The unit of analysis is type of the remote access which allow student present during the classes. The constructs of analysis are functionalities of such a web application: possibility to track an attendance, to provide each student with personal account and to keep and display data, which is gathered during the online lectures.

3. Analyze the data, obtained through the interview, and plan out the steps that need to be done, in order to reach/meet the client's demands.

4. Develop and test the prototype, as well as analyzing if the outcome, comparing it to the demands of the client.

10 Project planning

10.1 Role Division

- Project lead: Semida Andreicha
- Documentation/Archivist: Semida Andreicha
- Research Lead: Semida Andreicha
- Coding lead: Natalia Karpova
- Database Lead: Natalia Karpova

All team members will help with all aspects within the project but the said names will be in charge of ensuring that the work is being done correctly and in a timely manner.

10.2 Work Division

Name	Position
Semida Andreicha	Researcher
Natalia Karpova	Back End work and Front End work

10.3 Schedule

Task Name	Week	Start	Finish	Member Work
Initial design of the UI of the Web Application	Week 2	09.May.2016	13.May.2016	Semida
Finish the model for the database	Week 2	09.May.2016	15.May.2016	Natalia
Develop the Start/Log In Page	Week 2-3	13.May.2016	21.May.2016	Natalia
Make a sample database	Week 3	16.May.2016	21.May.2016	Natalia
Develop the Home Page	Week 3-4	16.May.2016	28.May.2016	Natalia
Develop the Subject page	Week 3-4	16.May.2016	28.May.2016	Natalia
Make user-friendly design interface for the application	Week 3-6	16.May.2016	28.May.2016	Natalia
Develop the Live Lecture page	Week 4-6	28.May.2016	06.June.2016	Natalia
Implement buttons (hand & mute) for the video	Week 5-6	30.May.2016	06.June.2016	Natalia
Implement a Dropbox/upload	Week 6	06.June.2016	11.June.2016	Natalia

system for the assignments				
Finish the Research Paper, Project Plan, Data Dictionary, Step-by-Step Installation Guide	Week 4-7	30.May.2016	13.June.2016	Semida
Debugging	Week 6-7	06.June.2016	17.June.2016	Everyone

10.4 Team rules

- Presence during meetings are compulsory. Team members are only allowed to miss a meeting with prior notice (at least three hours before the time).

- If a member cannot be present for a meeting, they should ensure that their due work is sent to the other members so that it can be reviewed. They need to take the steps necessary to make sure that they know what their tasks are and when they need to be fulfilled.

- Failing to do the task(s) a team member has been assigned in time, without prior notice or explanation is against the rules.

- If a team member continuously fails to comply with the rules, they will be taken to the supervisors to discuss the situation.

- Team members must communicate with one another at any given time.

11 Credits

1.1 MoSCoW Analysis (6.1.5.2)". A Guide to the Business Analysis Body of Knowledge (2 ed.). International Institute of Business Analysis. 2009.

2.1 VoiceWorks. (2015). Retrieved May 23, 2016, from http://www.voiceworks.com/en/services-overview