

# Criterion A

## Defining the problem

The client, Ms. M is an International Baccalaureate (IB) Preschool Years Programme (PYP) teacher. As part of her job, Ms. M has to write remarks about each student every day. In the remarks, she has to include what skills student has learned in a unit, and she also has to assign a grade for the work of students. At the end of each year, Ms. M has to write a final report, which is a summary of all remarks stored throughout a year.

Currently she uses various ways to store the remarks. The ways vary from spreadsheets to simple hard copy papers.

The current way Ms. M has been storing remarks had become inadequate due to large amount of paper work and inability to store remarks efficiently. She also wastes a lot of time writing by hand each remark. Furthermore, it is very uncomfortable for her to use spreadsheets on devices with small screens.

Ms. M has informed Computer Science teacher, Mr. T, about the problems she has faced. After a little consultation, Mr. T informed computer science student, Akim Ruslanov (I), about a need for a software solution. In turn the student conducted a meeting with Ms. M. During the meeting, Ms. M officially became a client of Akim, and the software solution was decided. The software solution became a database driven website, which would allow Ms. M to store remarks in one place and access them from various devices.

After the meeting, the student asked Mr. T to be an advisor due to the fact that Mr. T had a lot of experience in web development.

## Rationale for the proposed solution

I have decided that a database driven website would be the best solution. The main reason is an ability to access it from various devices with different systems. For managing database, I chose to use MySQL, since it is a free management system and I could easily connect it to websites; and for facilitating the process of the management, I chose to use phpMyAdmin. The client would actually not interact with any of the listed software above since it was chosen to facilitate the process of development. Instead all interactions would be dealt through a web site.

For connecting websites and database, I chose to use PHP language since it was the most common language and thus it had the most amount of resources to work with. When it came to actual creation of websites, I decided to use HTML for creating, CSS for decorating and JavaScript for interacting. The main reason why I chose all of

these languages is because they are standard. Consequently, most of the systems should run them.

## Stating Success Criteria

1. Data entry pages to add student, topic, unit, subtopic and remark information to the database
2. View page for
  - a. Topics
  - b. Units
  - c. Subtopics
  - d. Remarks
3. Home page with student information
4. The home page also needs to show the topics in which student has the highest and lowest average grade
5. Ability to edit information
6. Ability to delete information
7. Top navigation bar to go to the home page or open side navigation bar
8. Side navigation bar to go to the view and data entry pages
9. Web pages optimized for devices with different screen sizes
10. An appropriate login page made in order to secure data access

Word Count: 565