

## Criterion A: Planning

### 1. Defining the problem

The client, Ms xx, is a secondary school teacher who works at a local school. Her job, apart from teaching, is to give each student a grade for each one of the three school trimesters for each one of the four subjects she teaches, as well as an end-of-the-year-exam grade. Then, she has to calculate the average of each student at the end of the year for each one of the subjects and present the school with individual student records.

So far, due to the relatively small number of students per grade, she had been keeping records manually. However, over the years, the number of students has increased, making Ms. xx's job tedious and very error prone.

Therefore, Ms xx contacted me, asking me to provide her with an IT solution. She wishes for the end product to be very user-friendly, since she is not familiar with computer and software, and for it to be relatively inexpensive. My computer science teacher agreed to be my advisor, and I decided to write the program using Java.

### 2. Rationale for solution

So, the idea behind the program is to minimise the time needed for Ms xx to create complete student records, maximise efficiency and minimise mistakes. It would also make it much easier to track student progress, class progress and the stage at which Ms. xx's work is at.

So, I decided to proceed with this programming language since I am familiar with it, it is object-oriented, which will allow me to create a modular, easily-maintainable application and easy to make changes in the code. Also, it is platform-independent, so the program could be used on multiple systems. Finally, since the client may not have internet access at all times, the app will be coded as a desktop app and not as a web app.

### 3. Criteria for success

- ✓ Data entry forms will allow the client to create new students, subjects, classes and grades easily
- ✓ Client will be able to edit and/or delete any entry at any moment
- ✓ Averages will be calculated automatically if student has all required grades (three trimesters and final-exam grade, which will be considered as a fourth trimester)
- ✓ Client will be able to see her entries by printing them on a browser (this way, if a hard copy is needed, the client will be able to print by clicking the mouse)
- ✓ Printed files will be sorted using student surnames
- ✓ Very user-friendly interface
- ✓ Can be used on multiple operating systems

**word count: 426**