Appendix A – 1st Interview with client

(IN CLASS)

[Mr. Christos]: Guys, come on, sketch the graphs.

[Classmate 2]: Come on Sir, can't you do it on the board for us?

[Me]: Or at least on the GDC on the smartboard.

[Mr. Christos]: But I'm sure you will never copy them down; you never keep notes and you need these. I wish I could at least send them to you via email but to do so, I would have to take a screenshot of the smartboard, crop the picture to the GDC's display, add in notes everything that we have found, the roots, the max and min points, find your email addresses and repeat this process for every graph that we create in a lesson. I'm sorry but you will have to write them down.

[Me]: What if I could write a program that does exactly that? Keeps a record of all the graphs that we sketch in a graph and sends them automatically to all of us.

[Mr. Christos]: That sounds perfect and we can talk about it later but for now, please sketch the graphs and let's get going with the lesson.

(LATER THAT DAY)

[Mr. Christos]: Were you serious about creating such a helpful tool for the class?

[Me]: Sure Sir. I will just have it send all the data to the GDC's online site, then have them formatted, saved and emailed to us.

[Mr. Christos]: But more often than not the Internet at school doesn't work. Is it possible that you do all calculations locally before displaying the result?

[Me]: Well it's definitely more complex but it can be done. However, if there's no internet connection, it won't be able to send the results to our emails. And this might impose some more imitations as well. For once, the program will only be able to work for continuous functions, as it is really hard to find points of discontinuity…and I think that floating precision errors will also take place.

[Mr. Christos]: It doesn't really matter, as long as the results are placed all together in a pdf, finding the time later in the day to send it to students would not be difficult. As for the continuity, I believe that breaking a non-continuous function in multiple continuous ones would do the job?

[Me]: Yes, exactly. But back to internet connectivity, I can have it try to send the results to our emails, and should there not be an active internet connection, it will just throw an error. But as long as there is internet connection it will work normally.

[Mr. Christos]: Great. Just make sure that it sends the correct details to the students of the respective class, as well as that it allows me to add new classes and delete and edit old ones.

[Me]: Of course. So what exactly do you want the program to compute?

[Mr Christos]: Not much, basically what the GDC graph does. Firstly a clear graph of a function within a range; other than that, local max and min points, roots and y-intercepts within the same range, as well as y coordinates of any x-value entered.

[Me]: Would it also be useful if it could find the area under the graph, the integral? Or maybe even the volume of revolution?

[Mr. Christos]: It would be great.

[Me]: I'll take care of that, too.

[Mr. Christos]: Perfect, thank you very much. We'll keep in touch. Inform me on any progress that you make.