Spreadsheet for Margaret Smith

Criterion A– Planning

Defining the problem

The **client, Margaret Smith**, is the Head of Economics of a large school in London. Each year she has to write, mark and analyse information from the end of year assignment for her Year 12 (11th Grade) students.

To do this she puts all of her results into a spreadsheet and then, with a little help from Sean Hartley, the Head of ICT, provides information that will be passed on to the school's management to help with their analysis of student progress.

This year, to Margaret's horror, the **paper had mistakes in Section B** and Mark Regan, the Principal, wanted to know how **whether the results for the whole paper would be reliable**, or Section B should be removed and the information based only on Section A.

Sean has suggested that Margaret approached **Elisabeth Wightman, one of his IB students, to develop a solution** to see whether all of the paper could be used for the analysis of results.

Word Count 158

Rationale for the proposed solution

I decided that MS Excel with Visual Basic would be the best solution to the problem. The ability of the software to allow the integration of Visual Basic code (code) with the tools provided by the software.

To provide the solution in a straightforward manner the spreadsheet must be able to process the data and then be able to present it in a user friendly format to Margaret.

Additionally as Margaret only has basic skills in Excel, she must be able to run the results from a single click of a button which is possible in Excel by the use of macros.

It is also likely that Mark Regan will want to be able to view these results and he does not want to have any more specialist software such as Access (which would require another licence) to be installed on his computer.

Word Count 143

Stating success criteria

Note: To solve the problem in the short timescale a simple version was developed. The initial success criteria are stated in the first bulleted list, numbers 1 to 4, with the second version that was submitted for assessment in the second bulleted list, numbers 5 to 10.

The techniques used to develop the final version are included in Criterion C.

The initial version of the spreadsheet that resolved the problem for Margaret must be able to;

1. allocate the results from Q5 into one worksheet and Q6 into another
2. show the number of students in the initial marks sheet
3. synthesise the information to view the key findings on one sheet
4. apply conditional formatting to highlight when certain conditions apply

The **final version** of the spreadsheet (for assessment) must be able to;

5. dynamically update the summary of results
6. dynamically allocate the results from Q5 into one worksheet and Q6 into another
7. automatically count the number of students in the initial marks sheet
8. synthesise the information to view the key findings on one sheet
9. apply conditional formatting to highlight when certain conditions apply
10. provide sufficient information in the code to make it possible to be maintained or updated by a third party

Word count 60