Criterion A- Planning

1. The Scenario

My client, Mr. Ali is a middle-aged store owner and has his own general store in our neighborhood. As I am a regular customer, I noticed that he was facing difficulty in managing the general notebook he uses to keep track of his inventory and record his transactions. I conducted an interview with him over phone at 12th July 2021, where he expressed the problems he face in depth. He mentioned that due to an increase in number of customers in his store, he found it difficult in keeping track of all the customer's transactions. He also noticed that some items from the store inventory disappears, and he struggles in figuring out whether the item was stolen or misplaced. A transcript of this conversation is given in Appendix A. Me, being an IB computer science student decided that I will help this person out by building a software which will help in keeping track transactions and increasing accountability of the store.

2. The Rationale

After brainstorming the problem, numerous solutions to the problem were available. The first solution was that the client can use an excel spreadsheets to list his inventory and transactions down. However, the issue with this approach is that since it is a general store, the list of products and transactions is quite large. It may be overwhelming for my client to find a specific product information from the spreadsheet quickly. Although there are search options available in excel, but they are quite complicated to use, and it will not be user friendly for my client, who is a middle-aged man. Moreover, anyone can access the excel spreadsheet and modify the data, which is a critical issue with this approach.

The second approach was that me being an IB computer science student, I can develop an inventory management software for him. The program will have add, update, delete and a search function which will allow the client to keep a record of his products in the store easily. A checkout function can also be integrated into the program which will allow my client to record transactions easily. The program will be secured with a login page containing a username and password so that the product information remains confidential.

As I had previous experience in coding with C++ and C#, I decided that I will write the program in C#. The main advantage of coding in C# is that not only is it an object-oriented programming language, its cross platform as well. Any operating system that has NET framework can run a C# application. It also has a rich class of libraries, hence many functions can be easily implemented and the application can be developed quickly. Moreover, C# program generates a portable executable '.exe' file, which would make it make my client very easy to run the program.

Success Criteria

    a.   The program is compatible with a variety of operating systems.

    b.   User-Friendly Interface

    c.   Login Module to assure a secure program

    d.   Add Data

    e.   Update/Edit Data

    f.   Search Data

    g.   Delete Data

    h.   Validation Checks

    i.   Program can be used on multiple operating systems

Word Count- 467 Words