

# Criterion A:

## The Scenario

**My client** Brian has in recent years run a convenient pop-up store where he sells products such as food and drinks in order to generate a profit. Involved in his process includes stock keeping, supplier management and customer management. His current methodology revolves around keeping stock and manually updating it using an excel spreadsheet that is shared with employees.

Having spoken with him (**refer to Appendix 1**), he has made me aware of his struggles in bookkeeping and product management. He has also mentioned the frustrations of having to email each of his suppliers manually when the stock of certain products is low. Given this, I offered to build him a point-of-sale system which fulfills its basic functionality and his specific requirements.

The product would be a desktop application that can run on the client's computer. This would be sufficient for my client as they typically do not need to move much when engaged in sales hence, disregarding the need for portability in a mobile app etc.

## Rationale for Solution

As my client works with additional employees, the software will require segmented modules of which certain modules may not be accessible with employee privileges and will require administrative privileges to access. For instance, adding new users or ordering products from suppliers. I will use Java to create this program as not only is it object-oriented which will allow me to create modules to repeat processes that will arise but it is also platform-independent, which may be necessary as my client and his employees do not use the same device and operating systems. Java also has a large variety of libraries which would be very useful when creating the GUI and implementing other features such as getting the date or connecting to the database.

As decided in the follow-up interview with my client (**refer to Appendix 2**), the software will have a front end and a database. The database will be created on MySQL and will run on a cloud server. This database will store all the information regarding products, users etc. I have decided to use MySQL as I am familiar with its use and its strong performance and scalability. It is also fairly simple to add tables to accommodate the large amount of different data that my client would require. Using MySQL, data can be easily added and pulled from the database using queries to allow for easy manipulation of data. The front end of this software will use a GUI (Graphical User Interface) in order to allow for easy navigation as well as clear input boxes and tables that will display data pulled from the database.

## Success Criteria

1. Entire software will be accessible and run through a Graphical User Interface
2. Employees and Admins may log in with existing Accounts
3. Administrators may create/edit/delete new or existing accounts
4. Employees and Admins may add/edit/delete/search new or existing products, customers, suppliers and categories
5. All data must be stored permanently on tables in a database to be used later.
6. All data will be displayed in tables visible on the GUI
7. Employees may engage in the sale of a product.
8. Sales Record must be created showing revenue and product sold.
9. If the sale includes a registered customer, Total sales and spending should be recorded.
10. Automatic stock update
11. Report must be generated for a summary of daily sales and total daily revenue.
12. Automatic restocking sends pdf through email to corresponding suppliers
13. All user inputs must be validated

Word Count: 438

