Criterion A: Planning

Introduction to Client and Business

XXX, my client, is a housewife who started a small food brand a few years prior, 'Cihen Kitchen', selling various kinds of food through social media. After conducting an interview with the client, it has come to my attention the ineffectiveness of the solution currently in place.

Problem Definition

The current system, the use of pen-and-paper, to record orders is time-consuming, repetitive and prone to error. Every time my client receives an order, she will need to jot down the list of purchased goods with pen and paper on a notebook and then calculate the total sum the customer will need to pay, doing so with a calculator. She will also need to manually calculate for the cost of products per order when analyzing her business expenses. I have been informed that there were many times errors in data entry have caused problems in the past such as mistakes in the recording of orders causing the wrong products to be sent to customers. There were also instances when the client miscalculated the total amount a customer should be paying, causing for misunderstandings as well as distrust between customers and my client. It is also difficult for her to observe trends in the sales of her products. Every time the client is to ship orders, she would have to flip through her notebook to find the correct address from the customer record, making the process inefficient. Due to all these reasons, my client has requested for a product to replace her current system.

Word Count: 203 words

Solution Overview

To solve the client's problem, I have suggested the following possible solutions:

- Web application using VB.net
- Windows application using VB.net
- Spreadsheet using MS Excel
- Database using MS Access

Proposed Solution

After careful deliberation, I have come to the conclusion that a web application linked to a database will be the most suitable solution for my client's problem.

Justification of Proposed Solution

The front-end of the application will be built using VB.net with the help of Visual Studio as it is an object-oriented programming language which can be useful in the process of building the application. VB.net is also relatively well-known among programmers, so in case there is a need for alterations to the application in the future, it will be easier to find programmers capable of doing so. MS Access will be used for the back-end of the application as the product requires a database to store information. MS Access in particular was chosen for a similar reason to VB.net, that is for its widespread popularity among people with access to a computer. This makes it so that the average person without much experience with database management software will be able to modify the database if required in the future. As the client is not very skilled in IT, especially in terms of managing a database, a web application is perfect due to its simplicity and familiarity to the client. A web application also allows the client to access the app without having to install it, which permits the use of different devices. A database is chosen over a spreadsheet because of its efficiency in organizing data as well as the abundance of features it allows for.

Word Count: 216 words

Success Criteria

For my solution to be deemed as a success, it needs to have the ability to do the following:

- Easily input new incoming orders as well as edit existing orders to/from a database, allowing each to indicate if it is paid for, ready to be shipped and its overall status, whether the order is ongoing or completed
- Filter orders based on these features as well as the customer's name to narrow down the search for a particular order
- Sort orders based on their dates to be shipped to allow the user to view orders in accordance to their urgency
- Easily input and edit customer information to/from a database
- Filter customers based on their names
- Easily input and edit products as well as calculate their cost from ingredients required
- Easily input and edit ingredients
- Generate daily, monthly, yearly and all-time reports which include:
    - Listing out top five customers
    - Listing out top five selling products
    - Calculating total revenue, cost and profit

As well as have the following features:

- A login page for security purposes
- A main home page for easy navigation
- A simple easy-to-use user interface
- A consistent design all throughout the application
- Separate pages for reports, editing orders, customer information, products, ingredients as well as viewing customer information and orders
- Minimize data entry to avoid human error with the use of dropdown lists, checkboxes, etc.