Initial Proposal – A Till PoS System

Brief overview:

My idea is to create a Till Point of Sale System. This system will work using the server-client model, where clients connect to a server and request data from it. The server will have a database connected to it which it uses. This database could store stock items that can be sold, staff names, logons and details or transaction details, including a list/dictionary of items that were bought, date time etc.

The items will be stored as objects, and I will be using Unity Engine to enable easy UI creation and manipulation. I will be programming with C# as this is the main programing language that is compatible with Unity. C# is an object orientated programing language that is primarily used for game development, however it is a versatile language that can be well suited to my needs.

I will be also using the SQLite library for my database manipulation, this is a light-weight library, which allows me to directly execute Structured Query Language (SQL) code. It contains most features, however it isn’t overly powerful, and is therefore suited to smaller projects like this. SQLite is also a C# library meaning that I don’t have to link in another programing language, like I would if I used other options such as MySQL.

My Primary Stakeholder would be a restaurant or a standard store (such as a corner store). This means that I can make a general software that could be adjusted depending on the stakeholder’s personal wishes, if this were a commercial software.

Another advantage of using Unity Engine and C# is that they are compiler based. This means that the source code is compiled and then then an executable file is sent to the end user, this means that the source code can remain private. This is suited to Closed Source development. This means that if the software were commercial then the copyright and code could be kept secure.

Outline of what I would like to achieve

I would like to achieve a working Point of Sale System, where staff members can enter a customer’s order, calculate an order total and complete the order. Due to the limitations of this project, the system will not be able to be connected to a card payment system, a till drawer or a receipt printer.

However, it should be able to simulate these functions, it should also be able to recall previous transactions, and output the order details to the screen. This could be done using popups.

I would like to achieve a self-explanatory interface that requires no operating instructions for the basic user. Some administrator features may require some instructions, however these functions will only be accessible to users with more experience.