Allicyn Horseman

13 July 2022

CIS30A

Course Project Documentation and Planning

The purpose of my course project is to create an ordering system for an online craft store. It will allow the user to select from a predetermined list of products and choose their delivery date. Then it will return a receipt for their order. After the receipt has been created, the system will request additional information regarding the order for later use in order fulfillment.

In my project, I will be solving the following problems: accessing the products in the store, requesting a customer phone number for order confirmation, creating a calendar for delivery date selection, requesting additional information about the order for future use, and providing personalized receipts to customers that include the delivery date.

In order to solve the problems listed above, I will implement the following solutions: firstly, in order to access the products available in the store, I will create a dictionary of the products within the program. I will request the user to input a phone number for the order, which will be confirmed to be valid through exception handling. To provide users with the ability to select their delivery date, I will implement Tkinter’s Tkcalendar function with DateEntry. Since this needs to be accessed within the receipt module, the selected delivery date will need to be parsed into a variable for later use.

The algorithms implemented within my program include calculations for the subtotal of items in an order, the cost of shipping for the order, the cost of tax for the order, and the total cost of the order. I am also implementing classes that request the additional order information from the user. There are two separate custom modules that are incorporated into the program: one for the calendar and one for the receipt creation.

The program objectives in my project are to allow the user to place an order through an online craft store. They will be able to select what they want to purchase and when they would like it to be delivered. Within the program itself, it will need to be able to present inventory (with assigned costs), access a custom calendar module in order to accept date input from the user and store it for the receipt, access a custom receipt module to calculate the various costs of the order, and store the completed order as a text file. Additional information will be requested post-order for later use.

When used, my program interacts with the user by prompting them to select a delivery date. Once they have input this information, the user will be able to select what they would like from a list of products. Then, the product will create a customized receipt showing their subtotal, the total cost of shipping, the total price of the order, and the requested delivery date. Finally, it will prompt the user to input order details and contact information.

The limitations of my program include: there is no tracking of available stock, which would be necessary in a real-world application of an online storefront. Also, the order details (size and color) are only available to select on a single-item order as this is meant as a demonstration of further order modification. Finally, for some reason I have still found myself unable to import the user-selected date into the receipt, resulting in a clear limitation of the program.

In order to improve the limitations of the program, I would recommend implementing a program that includes the amount of inventory available per item that could be updated in real-time when a user places an order. In order to attach details to more than one order, I would recommend creating a module that tracks how many selections the user has made in their order that would return prompts for order details (size and color) for each individual selection. To import the date into the receipt, I honestly do not know what to recommend as even with the myriad solutions I found and attempted online (as well as the wonderful advice of my professor) I remained unable to clear this hurdle.