HUMAN-COMPUTER INTERACTION HOMEWORK 2

Design a depertment store's 2 dialog boxes

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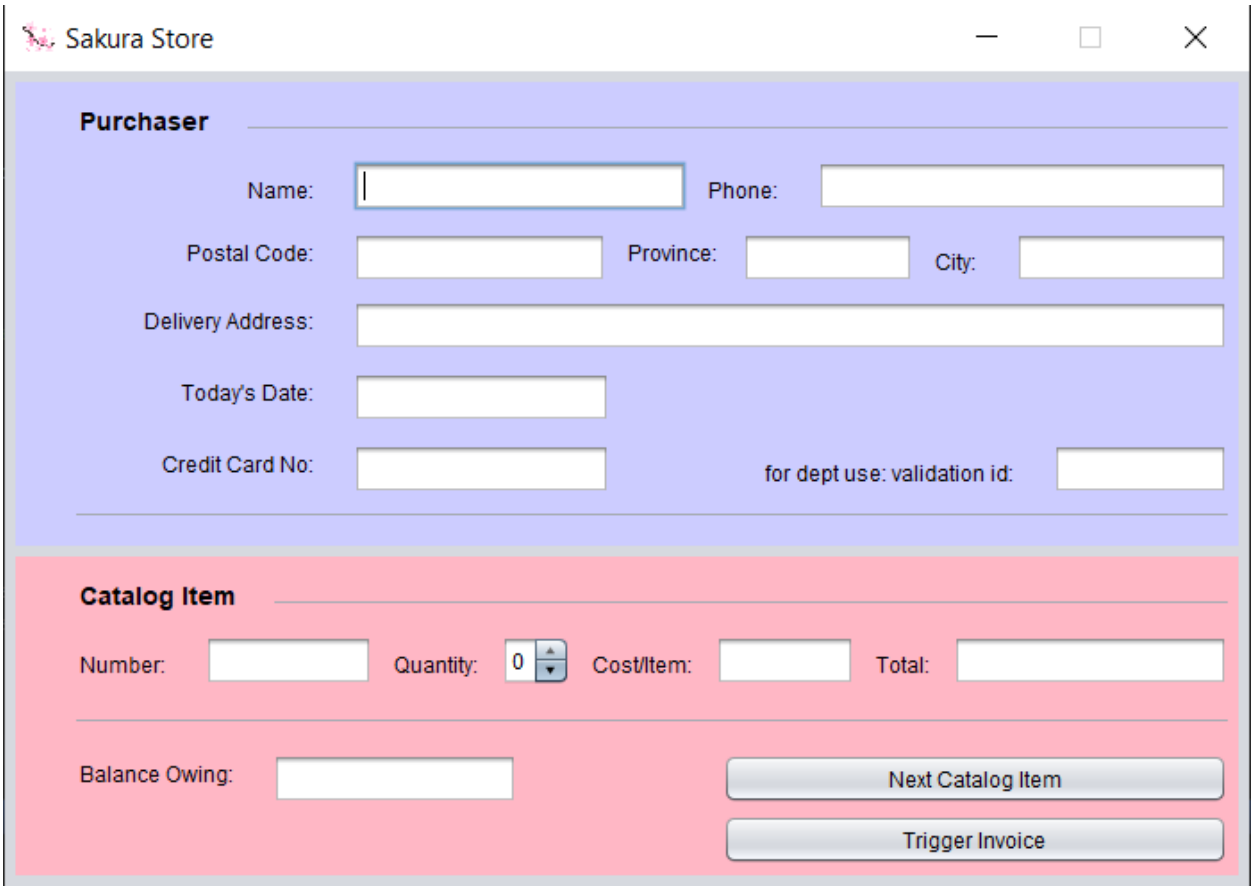
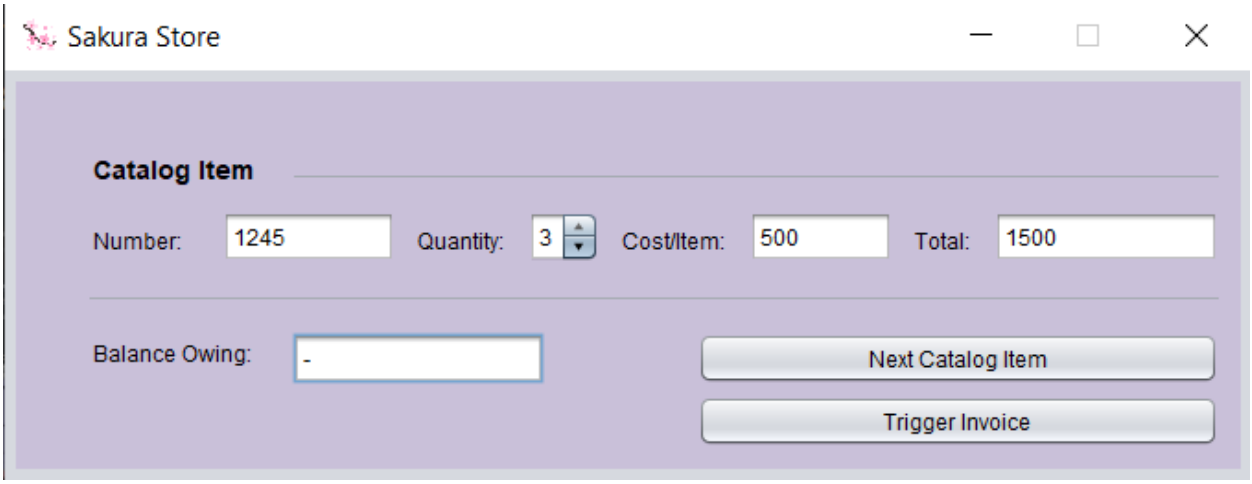
In this project, our goal was to design a department store's 2 dialog boxes, one for customer info and one for the product customer wants to buy. We learned how to design a program with a GUI considering the human-computer interaction rules, laws, and standards.

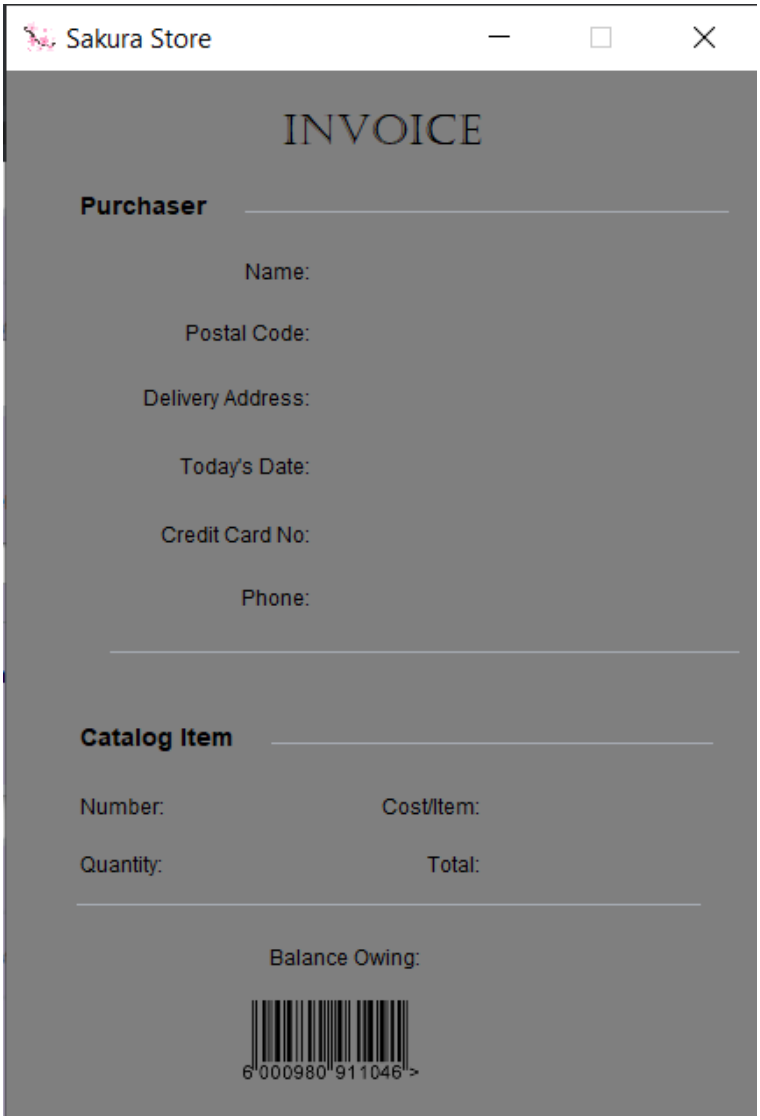
First, we talked about the programming schema. We discussed whether to choose Microsoft Access or Java to code this program. We wanted to create and design a database in Microsoft Access so every user and what they buy would be recorded in the system. But our project goal wasn't to create a database, only to design a database GUI, so we decided to use Java JFrame since we had more experience.

Like our last project, we worked with JFrame. We created the interface like the one in the project document. We named our store "Sakura Store", selected a sakura tree as an icon, chose pastel colors for the background and white for buttons. These soft colors will make it easier for the user to use and look at this app. Buttons' sizes are appropriate and when the user hovers on the buttons, they change color so the user feels like they are real-life buttons. Also, the program opens in the center of the screen so the user can see quickly and act fast. We designed the window minimalistic and simple so that it won't bother the user.



After user enters all the info needed, they can choose 2 buttons. Next catalog item creates another catalog item tab, but the main window won't be closed so that user can click on that button as many times they want. Trigger invoice button creates an invoice with the data user entered before they pressed the button.





Example Scenario

Now we will study a simple usage of this program. Since our project only wants us to design the GUI we didn't add the mathematical coding part and didn't store information in a database. But when someone wants to use this program as a whole, codes can be added and a database can be created. We will explain it as the database is created.

When the user first runs the program, they will first see that they have to enter their name, phone, postal code, province, city, address, and credit card number. Today's date can be derived from the database server's date and the validation id can be auto-incremented and used as a primary key in the database so that every customer has a unique ID. Then user sees the catalog item part. They must enter the item number which is auto-incremented and is used as a primary key in the database so that every item has a unique ID like customers. When the user enters the item number, its price will come to the screen automatically since it is stored in the database. The user can increase or reduce the quantity, the program will automatically calculate the total cost. So, the user only has to enter the number and quantity, others can be found from the database and can be calculated.

If the user wants to buy another item, they can press the "Next Catalog Item" button without the need of logging in again. The user does the same steps to choose the item. It will be added to "items they have purchased" in the database when they press the "Next Catalog Item" of the "Trigger Invoice" button again.

The "Trigger Invoice" button creates an invoice with the data in the database. The user doesn't need to add any more information. Invoice is only created for the last item they purchased.