Design Document
Methods and Tools in SW Development

I. Group Information

Group Number: 25

Group Member names/netIDs:

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What classes are you going to have? Explain why.

1. **Customer Interface- This is important because it will contain all the actual Menu options that the account has access to.**
2. **Inventory- This important because it contains all the necessary information for the Inventory .**
3. **Cart- Keeps all the information for the price and the books the customer wants to buy.**
4. **Account Information- important because it contains all the user's accoun**t

II. Detailed Class Diagrams

Inventory
-Item name: string -Item_count: int
+Inventory(): void +Inv_add_Item(): void +Inv_remove_Item(): void +restock_item(): void

Inventory(): A constructor for the class inventory

Inv_add_Item(): Add items to the inventory

Inv_remove_Item(): Removes items from the inventory on checkout of that item (item count decreases)

restock_item(): Restocks the items that are not checked out.

Customer Interface
-UserName : string
+View_all_items_in_carts(): void +View_LoggedIn_OrderHistory(): void +CheckOut_Current_Cart(): void +Delete_Account_Information() : void +Create_Account(string Username, string Password, string Address): void +LogIn(string Username, string Password): void +LogOut(): void +Exit(): void

+View_all_items_in_carts(): Views all the items in the cart.
+View_LoggedIn_OrderHistory(): Views the logged in user's Order History.
+CheckOut_Current_Cart(): Checks out the current user's cart and deletes it.
+Delete_Account_Information(): Deletes the User Account Information.
+LogIn(string username, string Password): Logs User in
+LogOut(): Logs User Out
+Exit(): Exits out of interface

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| Cart                              |
|-----------------------------------|
| -Cart_Item : string               |
| -Cart_Item_Number : int           |
| -Total_price : float              |
|-----------------------------------|
| +Get_cart_items: string           |
| +Add_Cart_Item(): void            |
| +Set_Cart_Item_Price(): void      |
| +Delete_Cart_Item(): void         |
| +Get_Cart_Total_Price(): int      |
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+Get_Cart_items(): Gets all the cart items.

+Add_Cart_Item(string book_name): Adds the specified book to the cart.

+Set_Cart_Item_Price(): Sets the item price that is inside of the cart.

+Delete_Cart_Item(): Deletes the item within the cart.

+Get_Cart_Total_Price(): Gets the total price of all the items in the cart.

Book
-Book_Title : string -ISBN : int -Book_Count : int -Book_Author : string -Book_price : int
+View_All_Books(): void +Get_Book_ISBN(book_name) :int +Get_Book_Author(string book_title): string +Get_Book_Count(string book_title): string

+View_All_Books(): Views all the books.

+Get_Book_ISBN(): Gets the ISBN of the book.

+Get_Book_Author(): Gets the book's author.

+Get_Book_Count(): Gets the book count.

III. Menu Information

Before login:
- Login
- Create Account
- Exit Program

After login:
- Welcome message ("welcome < user_name>")
- Cart Information
  - Go back
  - View Cart
  - Remove Item from Cart
  - Checkout item

- Inventory Information
  - View available Books
  - View total quantity

- Book Information
  - View book informations (ISBN, Author, Title)
  - View book price

- Customer Information
  - View username and password
  - View billing information (card informations and details)
  - View shipping information (shipping address and details)
  - View Cart items if any

- Exit Program

Does your menu cover all requirements given? If not, explain why certain requirements don't have a distinct menu option?

- **Edits stock information to lower the stock accordingly doesn't need to have a distinct menu option as it happens automatically once checking out the item. A customer or site admin does not need to manually edit stock information for every checkout.**

IV. Information Storage

How is your group storing information?
- **We will be using a csv file to store our data.**

Include one of these lines of questioning based on your storage schema:
- If a database, what kind of database?
    - How many database tables will you have?
- If files, how will your files be formatted?
    - How many files are you going to use?
        - **We will be using 4 different CSV files.**

What information are you going to store in each (table / file depending on schema)?
- **The Customer Table will store all the customer information.**
- **The Cart will store the Book Information and the price of the book for said user**
- **The Inventory will store the books for sale .**
- **The book will store the book title, price and author.**

- *Customer*
    - *First name*
    - *Last name*
    - *Username*
    - *Password*
    - *Email*
    - *Address(street, state, city, zip)*
    - *CardName*
    - *CardNumber*
    - *Billing Address(street, state, city, zip)*

- *Cart*
    - *Book name*
    - *Book Author*
    - *Book Amount*
    - *Book ISBN*
    - *Book Price.*

- *Inventory*
    - *Book quantity*
    - *Book Name*
    - *Book ISBN*
    - *Book Price*
    - *Book Author*

- *Book*
  - *Book title*
  - *Book Price*
  - *Book Author*
  - *Book ISBN*