

# Final Report

## Methods and Tools in SW Development

### I. Group Information

Group Number: Group 8

Group Member names/netIDs:

- Matthew Morgan
  - Dmm765
- Robert Gilliland
  - Rsg196
- Han Berdivev
  - Hb1136
- Brook Tebeje
  - Btt109

Group GitHub/GitLab repo link:

<https://github.com/han191299/Methods-Tool-GroupProject-Fall2022>

#### Who was assigned to do what?

Han Berdivev- Helped with both the design document. Helped with the code for the implementation by adding Comments and doing debugging for the code as well helped with the classes

Brook Tebeje- Did the bulk of the coding aspect of this project.

Matthew Morgan- Helped with design document and did the final report as well as minorly helping with code.

Robert Gilliland- Helped with the design document, added Comments to the Code as well as debugging code.

## II. Updated Detailed Class Diagrams

**When creating your project, did any of your classes change? Why did they have to change? Were the changes adding or removing items?**

We have essentially changed all the class diagrams, the first being the Account class where we added the OrderHistory function to let the user be able to view their order history. The other was taking out the UserID attribute because it was not used and is not needed for the user experience. We made three changes to the Inventory class, that being taking out the Show\_electronic\_inventory() because we realized that we only needed one category for a four person group and this will make the programming aspect a little lighter on our group. We also took out the Edit\_stock() function because other functions accomplished the main purpose of this function. Final change to Inventory was taking out the Classification attribute which was done because of the removal of the multiple categories, thus was not needed at all. The biggest change that was made was the complete removal of the Item Category class. The reason for this was because like mentioned before we moved from multiple categories of products to just one. Now that the Item Category is removed, we must meet the 4 class requirement so we made a Review class. This class will allow Users to leave and look at reviews on the website. For our final class which is the Shopping cart class where we removed two attributes (Stock and Classification). Stock because it was not a needed attribute in the shopping cart class and Classification because of the change to a single category. The last change to this class is the removal of the CalculateTotal() function because it was unneeded. The final thing was just minor changes to function and attribute names to make their purpose clearer.

Account has added the OrderHistory function and took out the UserID column

Shopping Cart we deleted two attributes (Stock and Classification) and deleted one function (CalculateTotal())

Inventory- remove the Show\_electronics\_inventory() function and the Edit\_stock() function also removed the Classification attribute.

Item Category- was completely removed

Review- replaced the Item Category

These were also several renaming's of attributes and functions

Account

- Attributes
  - o PaymentInformation to Payment
  - o ShippingAddress to Address
- Functions
  - o EditPaymentHistory() to EditPaymentMethod()

Inventory

- Attributes
  - o Cost to Price
  - o ItemID to ISBN
- Functions

- Show\_books\_inventory() to displayBooks()

#### Shopping Cart

- Attributes
  - ItemID to ISBN
  - Cost to Price
- Functions
  - RemoveItem() to DeleteItem()
  - PrintCart() to DisplayCart()

**\*\* after this point, add any class diagrams for classes that did change. Make sure it's the entire diagram, not just the items that were added/removed/edited -- one class diagram per page**

Account
Password EmailAddress FullName Payment OrderHistory Address
CreateAccount() Login() DeleteAccount() EditAccount() EditOrderHistory() Logout() EditPaymentHistory() EditShippingAddress() ViewAccountInformation() OrderHistory()

CreateAccount()- To make the ability to create a account

Login()- to be able to login

DeleteAccount()- The ability to discontinue a account

EditAccount()- allows the ability to edit account information

EditOrderHistory()- used to update order history as new orders come through

Logout()- to be able to logout

EditPaymentHistory() (Method instead of History)- the ability to add and remove payment information

EditShippingAddress()- used to update shipping addresses

ViewAccountInformation()- the ability to view account information

OrderHistory()- The ability to view your order history

Inventory
Title ISBN price Stock
displayBooks()

- Display\_inventory()- shows the inventory of the books

Review
Rating Reviewer Name Content Date Book title
AddReview() DeleteReview() ViewReview()

AddReview()- gives you the ability to add a review

DeleteReview()- lets you take down your review

ViewReview()- lets you look at reviews on the website

Shopping Cart
ItemID (ISBN) Title Cost (price) Stock - remove Classification- remove
AddItem() Deleteitem() ClearCart() Checkout() Displaycart()

AddItem()- the ability to add item to the cart

DeleteItem()- the ability to remove item to the cart

ClearCart()- get rid of all items in cart

Checkout()- Checkout the items

DisplayCart()- show the contents of the cart

### **III. Conclusions**

**If you were to flesh out your project more, what requirements do you think could be added?**

I would add a non-functional requirement that does not allow the service to use user's billing information except for the purpose of selling products and allowing the user to look and edit this information. Another requirement I would add would be to let users be able to contact a customer support team for any concerns this would be a functional requirement.

**Are there any overall design choices you wish you could have changed in hindsight? What are they and why?**

I think for the most part we changed a lot from our design and overall we are pretty happy with it but one thing is that we wish we could have made it more appealing to the eyes but we were not able to do this task. I wish we implemented more of a connection between inventory and review classes so that we could do reviews link to specific books.

**What difficulties did your group have?**

Most of our difficulties came from our lack coding skills in Python and the SQL connector syntax. This made it hard for everyone to participate in some parts of the project and thus led us to work on different parts of the projects and then come together with what everyone had.

**What did your group learn overall from the project?**

Overall, we learned how a simple ecommerce site would look on the back end of things and thus gave us a little insight on what goes on in the background when we are doing online shopping.

Another important thing we learned is that since there was a drastic difference in ability of doing the programming portion that we each had to do separate parts of the project and then come back together with the finish product.

Lastly While it was more of a biproduct it help some of us become more comfortable with the Linux OS.