Final Report

Methods and Tools in SW Development

**I. Group Information**

Group Number: 1

Group Member names/netIDs:

● Jacob Frayser

○jf1774

● Micheal McCusker

○ Jm2042

● Joshua Bean

○ jab1896

● Michael Wood

○ msw460

● Zach Chandler

○ zpc24

Group GitHub/GitLab repo link: https://github.com/JoshBean1/methodsProject

Who was assigned to do what?

Joshua Bean: User class, menu.py

Zach Chandler: Book and movie classes

**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?

* The User class started with only functions for login and changing data. I added two similar functions called ‘\_update’ and ‘delete\_account’ that manage the users.csv file. Update is called whenever a user is added or user data such as email or password is changed. I removed the Users\_cart function because it seemed unnecessary.

\*\* 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

|  |
| --- |
| User |
| +ID: Int  +username: string  +password: string  +name: string  +payment\_info: string  +address: string  +email: string |
| +login()  +change\_name()  +change\_pass()  +change\_payment\_info()  +change\_address()  +delete\_account()  -\_update() |

* Login: return True if username/password combination is correct
* Change\_name: update name, reflect in csv file
* Change\_pass: update password, reflect in csv file
* Change\_payment\_info: update payment info string, reflect in csv file
* Change\_address: update address, reflect in csv file
* Delete\_account: remove account from csv file
* \_update: write or rewrite user data to csv file

|  |
| --- |
| Cart |
| \*\*CartID: int  \*UserID: int  -Books: array  -Movies: array |
| +add\_book(self, book)  +add\_movie(self, movie)  +get\_num\_items(self)  +remove\_book\_index(self, key)  +remove\_movie\_index(self, key)  +remove\_item\_ID(self, item\_ID)  +remove\_all\_items(self)  +get\_total\_price(self)  +print\_items\_and\_price(self)  +view\_books(self)  +view\_movies(self)  +view\_cart(self) |

* Add\_book: Attempt to add a book to the cart by incrementing an existing book’s Count or by appending the book to the end of the Cart’s list
* Add\_movie: Attempt to add a movie to the cart by incrementing an existing movie’s Count or by appending the movie to the end of the Cart’s list
* Get\_num\_items: Returns the total number of items in the cart
* Remove\_book\_index: Removes a book from the Cart’s list based on its position in the list
* Remove\_movie\_index: Removes a movie from the Cart’s list based on its position in the list
* Remove\_item\_ID: Removes an item from the Cart’s list based on the item’s internal ID
* Remove\_all\_items: Clears the Books and Movies lists in the Cart
* Get\_total\_price: Adds up the total price of all items in the Cart
* Print\_items\_and\_price: Prints out the total number of items and their total price in the Cart
* View\_books: Prints out each Book within the Cart
* View\_movies: Prints out each Movie within the Cart
* View\_cart: Prints out each item within the Cart.

|  |
| --- |
| Book |
| \*\*ISBN: int  \*Name: string  -Count: int  -Price: float |
| +increment()  +decrement()  +delete\_book()  +update() |

Increment-Adds a book to the count

Decrement-Removes one book from the count

Delete\_book-Permanently removes a book from the list of books.

Update-Adds one book to the list of books.

|  |
| --- |
| Movie |
| \*\*ID: string  \*Name: string  -Count: string  -Price: float |
| +increment()  +decrement()  +delete\_movie()  +update() |

Increment-Adds a movie to the count

Decrement-Removes one movie from the count

Delete\_book-Permanently removes a movie from the list of movies.

Update-Adds one movie to the list of movie.

|  |
| --- |
| Inventory |
| \*\*itemID: int  -Count: int  -itemType: string  -title: string  -itemPrice: float |
| +view\_books()  +view\_movies()  +view\_all()  +checkoutBook(ID)  +checkoutMovie(ID) |

View\_books()-views the books in the list of books.

View\_movies()-views the movies in the list of movies

View\_all()-Views the books and movies

checkoutBook(ID)-Removes a book from the inventory

checkoutMovie(ID)-Removes a movie from the inventory

**III. Conclusions**

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

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

What difficulties did your group have?

What did your group learn overall from the project?