

Programming Project / C++ – Online Game Platform, Management & Interaction System –

Robert-Florin Csatlos-Muşan
Copcea Darian

May 2025

1 Task Description:

Robert :: Responsible for managing the platform.

- Adding, deleting, and modifying products (price, quantity, genre, etc)
- Making a purchase history
- Wish-list
- Library

Copcea Darian: Responsible for managing interaction with the platform.

- Adding products to the cart
- Viewing purchase history
- Buying products
- Redeeming products

2 Data Structures used by the team:

The following classes will be used:

- Product: int gameID, string gameName, Release_Date date, string developer, string publisher, double price, double discount, bool DLC
- Rel_Date: int day, int month, int year
- Date: int day, int month, int year
- Order: Product[] products, Date date

3 File Structure

The following files will be used:

Games.txt

A file where details about the available games will be stored in the form:

```
<number of products>  
<gameID> <gameName> <Rel.Date> <developer> <publisher> <price> <DLC>.
```

Library.txt

A file where details about the games the user owns will be stored in the form:

```
<number of products>  
<gameID> <gameName> <DLC>
```

Wishlist.txt

A file where details about the games the user wishes to buy in the future will be stored in the form:

```
<number of products>  
<gameID> <gameName> <price> <discount> <DLC>
```

OrderHistory.txt

A file where details about the games that the user bought will be stored in the form:

```
<number of products>  
<order1 date>  
<order1 gameID list>
```

Cart.txt

A file where the user can see the products they wish to purchase.

```
<number of products>  
<gameID> <gameName> <price> <discount> <DLC>
```

(GameName).bat

These will be files that will "simulate" the games available in the library. They will be automatically generated in the library when a game is purchased.

4 Interacting with Executables

The Application_1 will offer the following options:

`./engine.exe generate`

Generate the prerequisite folders and files.

`./engine.exe store`

To view games available for purchase.

`./engine.exe add <gameID> <gameName> <Rel_Date> <developer> <publisher>
<price> <DLC>`

To add a game to the store page.

`./engine.exe delete <gameID>`

To delete a game from the store page.

`./engine.exe edit <gameID> <price/relDat/developer/publisher/discount/DLC>
<New value>`

To change certain values of the product.

The Application 2 will offer the following options:

`./cart.exe view`

To view the products in your cart.

`./cart.exe addProduct <gameID>`

To add a product to your cart

`./cart.exe delete <gameID>`

To delete a product from your cart

`./cart.exe purchase`

To purchase the products from your cart.

`./cart.exe orderHistory`

To view the order history of your products.

The Application 3 will offer the following options:

`./library.exe view`

To view the library

`./library.exe install <gameID>`

To install that game

`./library.exe uninstall <gameID>`

To uninstall that game

`./library.exe play <gameID>`

To play that game