**Coding Standards**

Attributes will be written in **camel case**

Variables will be written in **camel case**

Constants will be written in **capital letters**

Methods will be written in **pascal case**

Class names will be written in **pascal case**

**User**

|  |  |
| --- | --- |
| **Attributes** | **Description** |
| String userName | The user class is used to determine if they are eligible to use other functions of the program such as bidding or advertising and keeps track of their credits and used to store their names when they bid or advertise an item |
| String password |
| String userType |
| Float credits |
| Const Float SESSION\_CREDIT\_LIMIT |
| **Methods** |  |
| User FindUser() | Admin uses it to when executing other functions such as delete, enable and disable user.  User uses it when logging in to check if user exists in current\_user\_account file |
| Void Login() | Prompts user to input a username and password then runs against the current\_user\_file to see if both information is correct, if correct starts the session for that user |
| Void Logout() | Session ends for the user |
| Void ChangePassword() | Prompts user to input a new password twice and then changes the password |
| Void Create() | User can create an account - Prompts user to input a username, password and user type |
| Void AddCredits() | Prompts user to add credits to their account, and can add up to $1000 per session. |
| Void GetUser() | Retrieve user and its attributes |
| Void SetUser() | Retrieve user and its attributes |

**Admin (Inherits User Class)**

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| --- | --- |
| **Attributes** | **Description** |
|  | Admin class inherits user class which gives them extra privileges and methods |
| **Methods** |  |
| Void DeleteUser() | Prompts admin to input a username and confirmation to delete |
| Void EnableUser() | Prompts admin to input a username and confirmation to enable a user’s account |
| Void DisableUser() | Prompts admin to input a username and confirmation to disable a user’s account |
| Void Refund(Item item) | Prompts admin to input a Transaction ID and confirmation to withdraw money from the seller and deposit the amount to the buyer from the bid amount. |
| Void AddCredits() | Prompts admin to enter a username and credit amount to add to user’s account |

**Items**

|  |  |
| --- | --- |
| **Attributes** | **Description** |
| String itemName | The items class is used by the bid and advertise class as it has a lot of information that can be used and shared by the advertise, bid and user class. |
| String itemID |
| Float bidPrice |
| String sellerName |
| String currentBuyerName |
| **Methods** |  |
| Void SetCurrentBid() | Receives information from bid class when user successfully bids on the item and changes the bidPrice. |
| Void SetCurrentBuyer() | Receives information from user class when user successfully bids on an item and changes the currentBuyerName attribute. |
| Float GetCurrentBid() | Get current bid price |
| String GetCurrentBuyer() | Get current buyer |
| Item FindItem() | This is used to find items of user input |

**Advertise (Subjected to change)**

|  |  |
| --- | --- |
| **Attributes** | **Description** |
| Item item | The advertise class is used to allow user to create an item to advertise |
| Short remainingDays |
|  |
| **Methods** |  |
| Void AdvertiseItem() | User is prompted to input most information of the item they wish to advertise for (item name, minimum bid price and number of days to put the item up for) |
| Void GetRemainingDays() | Retrieves the number of days until auction ends. |
| Short SetRemainingDays() | Sets the number of days until auction ends |

**Bid (Subjected to change)**

|  |  |
| --- | --- |
| **Attributes** | **Description** |
| Item item | The bid class is used to allow user to bid on an item |
| Const Float MINIMUM\_BID\_PERCENT |
| **Methods** |  |
| Float CalculateLowestBid() | Calculates the minimum amount a user has to bid (current price x MINIMUMBIDPERCENT) |
| Void BidOnItem() | User is prompted to input an item name then selects from a list of items then input an amount to bid on an item |
|  |  |

**Writer**

|  |  |
| --- | --- |
| **Attributes** | **Description** |
| String fileName | This class is used to write to the files when called |
|  |
| **Methods** |  |
| Ofstream OpenFile() | Opens the selected file |
| Ofstream CloseFile() | Closes the selected file |
| Void WriteToFile(String text) | Writes to the selected file |
|  |  |
|  |  |