**Users**

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| --- | --- |
| **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** |  |
| Bool 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 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 SetUserName(string name) | Set user’s name - used in Create() |
| String GetUserName() | Retrieve user’s name |
| Void SetPassword(string pwd) | Set user’s password - used in Create() |
| String GetPassword() | Get user’s password |
| Void SetUserType(string Type) | Set user’s user type |
| String GetUserType() | Get user’s user type |
| Void SetCredits(float cred) | Set the amount of credit a user has |
| Float GetCredits() | Gets the amount of credit a user has |
| Bool ValidateCredentials() | Validates their credentials on login |

**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 |
| User FindUser() | Admin uses it when executing other functions such as delete, enable and disable user. |

**Items**

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| --- | --- |
| **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 currentBidderName |
| **Methods** |  |
| Void SetBidPrice(Float price) | Set current bid price |
| Float GetBidPrice() | Get current bid price |
| Item FindItem() | This is used to find items of user input |
| Void SetItemName() | Set Item’s name |
| String GetItemName() | Get Item’s name |
| Void SetItemId() | Set Item’s Id |
| String GetItemId() | Get Item’s Id |
| Void CheckItems() | Allows the user to check on their items that are currently on auction |
| Void SetSellerName(string name) | Set Seller’s name |
| Float SetBidPrice() | Get current bid price |
| String GetSellerName() | Get current buyer |
| Void SetCurrentBidderName() | Receives information from user class when user successfully bids on an item and changes the currentBuyerName attribute. |
| String GetCurrentBidderName() | Get the current Bidder’s name |
| 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(short remaining) | 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 (1+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**

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| --- | --- |
| **Attributes** | **Description** |
| Const String DAILY\_TRANSACTION\_FILE | This class is used to write to the files when called |
| Const string AVAILABLE\_ITEMS\_FILE |
| Const string CURRENT\_USER\_ACCOUNTS\_FILE |
| Ofstream outFile |
| **Methods** |  |
| Void WriteToDailyTransactionFile() | Writes to the Daily Transaction File |
| Void WriteToUserFile() | Writes to the Current User accounts file |
| Void WriteToAvailableItemsFile() | Writes to the Available Items File |