**File Class Testing**

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| **Test Name** | **Error** | **Solution** |
| **advertise()** | | |
| Create an advertise transaction | Assert returned false | Changed assert to check a value instead of a boolean |
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| **bid()** | | |
| Create a bid transaction | Assert returned list size of 0 instead of 1 | Added line items.add(item) to bid |
| Create a bid transaction | Wrong type of test | Change the test to look for changes in the object |
| Create a bid transaction | No value was produced | Wasn’t getting the new value and applying it to the object |
| Create a bid transaction | Wrong value was produced | Got the value from the transaction object instead of itself |
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| **refund()** | | |
| Change available credits based off of refund amount | Null pointer exception | Created new test object for a buyer refund |
| Change available credits based off of refund amount | Null pointer exception | Created new test object for a seller refund |
| Change available credits based off of refund amount | Error appending objects into user accounts | Removed the users.add(buyer) and users.add(seller) lines |
| Change available credit based off of refund amount | Error in assertEquals (improper comparison value) | Used the wrong assert value. Changed assertEquals(new BigDecimal(“21:00:”), users.get(0).getAvailableCredit()); to assertEquals(new BigDecimal(“21:00”), users.get(0).getAvailableCredit()); |
| Change available credit based off of refund amount | Failed Test | Used wrong values to compare changed assertEquals(new BigDecimal(“21:00”), users.get(0).getAvailableCredit()); to BigDecimal(“19:00”), users.get(0).getAvailableCredit()); |
| Change available credit based off of refund amount | Failed Test | Used wrong values to compare. Changed BigDecimal(“19:00”), users.get(0).getAvailableCredit()); to BigDecimal(“21:00”), users.get(0).getAvailableCredit()); |
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| **addCredit()** | | |
| Updating the Available Credit on a user | Null pointer error | Incorrect test variables, added a name to the test object |
| Updating the available credit on a user | Incorrect value produced | Changed which attribute the assign function was point to |
| Updating the available credit on a user | Correct value, incorrect decimal value | Changed the data type to BigDecimal |
| **updateAvailableItemsList()** | | |
| Updating the user accounts list based on the transaction file | Incorrect value produced | Improper delete transaction processing through the switch statement. Used updated implementation of delete method. |
| Updating the user accounts list based on transactions | Improper test | Removed FileIO from test to focus on the method implementation in the Files class |
| **updateUserList()** | | |
| Updates the user accounts list based on transactions | Improper test | Focused statement coverage strictly on lines in the method in the Files class |
| Updates the user accounts list based on transactions | Incorrect value was produced | Item creation bug, fixed item creation method to let test work |

**FileIO Class Testing**

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| **Test Name** | **Error** | **Solution** |
| **ParseTransaction()** | | |
| Check if transaction file is parsed correctly | Incorrect format | Changed input format to match what is expected in the document |
| Bid parse for transaction | 0 returning for maxBid value | Checked the wrong attribute, changed minBid to maxBid |
| **writeUserFile()** | | |
| Check if the output is correctly formatted | Spacing incorrect | Added proper spacing in the test values. |
| Check if the file is read | Improper file | Changed the directory where the test output gets printed |
| Check first line of file | Incorrect way to check file | Used SearchPhrase, changed to regular scanner syntax and checked the first line. |

Methods for Loop and Decision coverage (To Cover updateAvailableItemsList() in Files class)

* neverEnterLoop()
* enterLoopOnceForBid()
* enterLoopOnceForAdvertise()
* enterLoopTwiceDecisionForNone()
* enterLoopTwiceDecisionForBoth
* updateAvailableItemsList() - does loop for many times