Project 3 – Binary Search Trees

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Author Note

This program takes the users input and converts it to a binary search tree. It produces the proper output to show the user a binary search tree in the terminal. It also will tell the user if the binary search tree is balance or is a binary search tree.

UML Class Diagram

A screenshot of a computer

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**Project 3 – Binary Search Trees**

**Test Table**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test Case** | **Input** | **What to Test** | **Actual Output** | **Pass/Fail** |
| 1 | Open Project 2  run points.txt  end | See if it will oprn application and display points in the file | File is read in and  Points are displayed | Pass |
| 2 | While It is open  Add 5 points | This will check the addPoints and addLines methods.  Also, it will update the maxList and redraw lines on new max points or not draw points if it is below and to left of max points. | Added 5 points and successfully update maxList | Pass |
| 3 | Remove 5 points from the application | This will test he remove points, drawpoints, drawlines, findMax, and compareTo method. | Removed 5 points and displayed new max list | Pass |
| 4 | Remove File name to make sure it sends error to terminal and opens blank application | Tests the File not found exception as well as the application opening even though there is an error | Successfully opens blank application and triggers file not found exception to terminal. | Pass |
| 5 | Add points to blank filenot found application | Tests that the application is working on a filenotfoundexception | Successfully allows you to add points to the Application and creates new max list. | Pass |

**Screenshots**

**Test Case 1**

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**Test Case 2**

**A screenshot of a computer

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**Test Case 3**

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**Test Case 4**

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**Test Case 5**

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**Rough Drafts**

**A notebook with writing on it

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**A graph paper with a square and numbers

Description automatically generatedA graph paper with writing on it

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