Pseudocode for NumberFormat.java

* main(String[] args) method
  + Non-constant variables:
    - binaryString
  + Ask the user to input a binary String
  + Record the user’s input in binaryString
  + Call bin2Dec method to get the decimal version of that binary string
  + Print that number
* bin2Dec(String) method
  + Non-constant variables:
    - temp to hold the value of the decimal form of the binaryString temporarily
  + Try to parse the int into decimal and place it into temp
    - If it throws an error, tell user that it wasn’t a binary string
  + Return temp

Test cases:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Cases** | **Input** | **Expected Result** | **Actual Result** | **Did it pass?** |
| Case 1 | 111110100 | 500 | 500 | Y |
| Case 2 | 1100010110011 | 6323 | 6323 | Y |
| Case 3 | 100000 | 32 | 32 | Y |

Screenshots

A screenshot of a cell phone

Description automatically generatedA screenshot of a cell phone

Description automatically generatedA screenshot of a cell phone

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UML Class Diagram:

A screenshot of a cell phone

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Lesson’s Learned

For this assignment, I learned how to work with Exceptions and how to catch any errors my programs are making. I used various exception types to catch user errors and attempted to current them/let them know of their errors. Exception catching is very important when making programs for the real world because you can never trust the end user with a simple task, so you must make it as stupidly easy and problematic as possible, as shown in InputMismatch.

Checklist

|  |  |  |  |
| --- | --- | --- | --- |
| **#** |  | **Y/N** | **Comments** |
|  | **Source java files** | **Y** |  |
|  | **Compressed files:** | **Y** |  |
|  | FirstInitialLastName\_Project8\_Moss.zip | **Y** |  |
|  | FirstInitialLastName\_Project8\_doc.zip | **Y** |  |
|  | **Program compiles** | **Y** |  |
|  | **Program runs** | **Y** |  |
|  | **Checklist is completed and included in the Documentation** | **Y** |  |
|  | **Documentation file:** | **Y** |  |
|  | **Comprehensive Test Plan** | **Y** |  |
|  | **Screenshots based on Test Plan** | **Y** |  |
|  | **UML Diagram** | **Y** |  |
|  | **Algorithms/Pseudocode** | **Y** |  |
|  | **Flowchart** | **Y** |  |
|  | **Lessons Learned** | **Y** |  |