

Exception Handling

CMPT220L

Due on Apr 22, 2022 by 11:59 PM

Points: 100

Problems

1. (*ArrayIndexOutOfBoundsException*) Write a program that meets the following requirements:
 - Creates an array with 100 randomly chosen integers.
 - Prompts the user to enter the index of the array, then displays the corresponding element value. If the specified index is out of bounds, display the message “Out of bounds”.
2. (*NumberFormatException*) Write the `bin2Dec(String binaryString)` method to convert a binary string into a decimal number. Implement the `bin2Dec` method to throw a `NumberFormatException` if the string is not a binary string. Write a test program that prompts the user to enter a binary number as a string and displays its decimal equivalent. If the method throws an exception, display “Not a binary number”.
3. (*BinaryFormatException*) Modify the previous problem, by defining a custom exception called `BinaryFormatException`. Implement the `bin2Dec` method to throw a `BinaryFormatException` if the string is not a binary string.

Submission

Make sure you create one Java file per project. Place your `.java` files under the corresponding folder in your local copy of the GitHub repository, commit and push it to the remote repository. Make sure that the professor has access to the repository (`jfac65-marist`).

```
cmpt220lastname\  
  hw09\  
    Problem1.java  
    Problem2.java  
    Problem3.java
```