

GOAL: Create two files, odds.txt and evens.txt, with the first one containing the odd numbers from 1 to 1000, and the second one containing the even ones.

HINT: Start with the file WriteData.java

TASK BREAKDOWN:

- * Copy WriteData.java from the ENGR 131 Code Repository
- * Copy TextFileIO.java to the same directory
- * Copy WriteData.java to a new program OddsEvens.java
- * Edit OddsEvens.java to save 1-1000 in the file all.txt
- * Compile, Run, Debug. Look at output.
- * Edit OddsEvens.java to save the odds to file odds.txt
- * Compile, Run, Debug. Look at output.
- * Edit OddsEvens.java to also save evens to file evens.txt
- * Compile, Run, Debug. Look at output. We're done!

```
-----  
// HERE IS THE FILE WriteData.java  
  
// This file demonstrates writing data to a text file using  
// the PrintWriter class and the TextFileIO.openWrite method  
//  
// -- M. Branicky, 10/09/06  
  
import java.io.PrintWriter; // needed for output processing using PrintWriter  
  
public class WriteData  
{  
    public static void main(String args[])  
    {  
        // Open the file  
        PrintWriter output = TextFileIO.openWrite("out.txt");  
  
        // Write output to the file  
        output.println("Prints an entire line, plus a carriage return.");  
        output.print("Prints a string without ... ");  
        output.println("a new line ...");  
        output.println("."); // end the line  
        output.println();  
        output.println("The square root of 2 is " + Math.sqrt(2.0));  
        output.printf("The square root of 2 is %f\n", Math.sqrt(2.0));  
        output.printf("%d + %d = %d\n", 2, 2, 2+2);  
        output.println(2 + " + " + 2 + " = " + (2+2));  
        output.println();  
  
        // Close the file  
        output.close();  
    }  
}
```

BACKGROUND: The file userN.dat (produced by GLRatings.java) contains a tab-separated list of integers
user_id | userN
where userN represents the number of movies that user user_id has reviewed.

GOAL: Read in userN.dat and output (to the screen) a list of the data for those users who have reviewed more than 200 movies (so-called "heavy users")

HINT: Start with the file ReadData.java

TASK BREAKDOWN:

- * Copy ReadData.java from the ENGR 131 Code Repository
- * Copy TextFileIO.java to the same directory
- * Copy WriteData.java to a new program HeavyUsers.java
- * Edit HeavyUsers.java to display all the data.
- * Compile, Run, Debug. Look at output.
- * Edit HeavyUsers.java to display only the heavy users' data
- * Compile, Run, Debug. Look at output.

```
-----  
// HERE IS THE FILE ReadData.java  
  
// This file demonstrates reading data from a text file using  
// the Scanner class and the TextFileIO.openRead method  
//  
// -- M. Branicky, 10/09/06  
  
import java.util.Scanner; // needed for input processing using Scanner  
  
public class ReadData  
{  
    public static void main(String args[])  
    {  
        // Open the file  
        Scanner input = TextFileIO.openRead("MadlibData.txt");  
  
        // Variables to be used in the story  
        double number = 0.0;  
        String pluralNoun = "", adjective = "";  
  
        // Get input from file  
        while (input.hasNext()) {  
            pluralNoun = input.next();  
            adjective = input.next();  
            number = input.nextDouble();  
  
            // Display story  
            System.out.printf("After the man ate %f %s, he felt very %s.\n",  
                number, pluralNoun, adjective);  
        }  
  
        // Close the file  
        input.close();  
    }  
}
```


