

```

1  /**
2   * Main
3   *
4   * main()
5   * getDurationString(int seconds)
6   * getDurationString(int minutes, int seconds)
7   */
8  public class Main {
9
10
11     // == constants ==
12     private static final String INVALID_VALUE_MESSAGE = "Invalid value!"; // define constants with final and UPPERCASE
13
14
15
16     // == public methods ==
17     /**
18      * main()
19      * @param args
20      */
21     public static void main(String[] args) {
22
23         System.out.println(getDurationString(1, 1));
24         System.out.println(getDurationString(60000123));
25     }
26
27
28     /**
29      * getDurationString()
30      * Get duration String from minutes and seconds.
31      *
32      * @param minutes min
33      * @param seconds sec
34      * @return duration String in minutes and seconds
35      */
36     public static String getDurationString(int minutes, int seconds) {
37
38         if(minutes >= 0 && seconds >= 0 && seconds <= 59) {
39             int hours = minutes / 60;
40             String hourString;
41             if(hours <= 9) {
42                 hourString = "0" + hours;
43             } else {
44                 hourString = "" + hours;
45             }
46
47             int remainingMinutes = minutes % 60;
48             String minuteString;
49             if(remainingMinutes <= 9) {
50                 minuteString = "0" + remainingMinutes;
51             } else {
52                 minuteString = "" + remainingMinutes;
53             }
54
55             String secondString;
56             if(seconds <= 9) {
57                 secondString = "0" + seconds;
58             } else {
59                 secondString = "" + seconds;
60             }
61
62             String timeString = hourString + "h " + minuteString + "m " + secondString + "s";
63             return timeString;
64         } else {
65             return INVALID_VALUE_MESSAGE;
66         }
67     }
68
69
70     /**
71      * getDurationString()
72      * Get duration String from hours, minutes and seconds (1 Param).
73      *
74      * @param seconds sec
75      * @return duration String in hours, minutes and seconds
76      */
77     public static String getDurationString(int seconds) {
78         if(seconds >= 0) {
79             int minutes = seconds / 60;
80             int remainingSeconds = seconds % 60;
81             return getDurationString(minutes, remainingSeconds);
82         }
83         return INVALID_VALUE_MESSAGE;
84     }
85 }
86 }
87

```