

```

1 package com.publcept;
2
3 import java.util.Scanner;
4
5 /**
6  * Main
7  * Use of Scanner functions without issues.
8  *
9  * main(String[] args)
10 */
11 public class Main {
12
13     /**
14      * main()
15      * @param args args
16      */
17     public static void main(String[] args) {
18
19         Scanner scanner = new Scanner(System.in);    // create new Scanner object
20
21         System.out.println("Enter your year of birth: ");
22         /*
23          * "Wrong Input Type Issue"
24          *
25          * Issue description:
26          * If letters are entered instead of a number, an exception is thrown back by Java and the program crashes!
27          *
28          * Solution:
29          * Check if the entered value is a proper number with .hasNextInt().
30          * Use an if statement to check the boolean of .hasNextInt() is true.
31          */
32         boolean hasNextInt = scanner.hasNextInt();
33
34         if(hasNextInt) {
35             int yearOfBirth = scanner.nextInt(); // retrieve console input int value with the Scanner method .nextInt
36             /*
37              * "Enter-Key-Issue"
38              *
39              * Issue description:
40              * Whenever reading a number from the scanner it's confirmed with enter, which ends the line and
41              * skips the next input.
42              * It's recommended to call .nextLine again without assigning a variable before entering another value
43              * to handle the "enter key issue" of skipping the next input, we have to call the .nextLine(), so that the
44              * scanner works as expected.
45              * Now, internally the Scanner is checking for a line separator and when we hit enter,
46              * we're typing a line separator, so that's interpreted as input.
47              * When we reach the .nextLine method, the input for this line becomes "enter", so is essentially skipped!
48              *
49              * SOLUTION:
50              * ==> There must be another empty .nextLine() method call right after reading a number with the scanner,
51              * to handle the next line character (enter key) issue! (see below...)
52              */
53             scanner.nextLine();                      // handle next line character (enter key) issue
54
55             System.out.println("Enter your name: ");
56             String name = scanner.nextLine();        // retrieve console input String with the Scanner method .nextLine
57
58             /*
59              * Negative Entry Of Number Issue
60              *
61              * Negative entered numbers lead to unexpected results.
62              *
63              * Solution:
64              * ==> use if statement to check a valid range of possible results.
65              */
66             int age = 2020 - yearOfBirth;
67
68             if(age >= 0 && age <= 120) {
69                 System.out.println("Your name is " + name + ", and your are " + age + " years old.");
70             } else {
71                 System.out.println("Invalid year of birth.");
72             }
73         } else {
74             System.out.println("Unable to parse year of birth.");
75         }
76
77         /*
78          * remove Scanner object to free up memory
79          */
80         scanner.close();
81     }
82 }
83
84

```