```
 1 /**
 2  * @author Mikhail Nikulin
 3  * @since 7-23-2023
 4  * @version 1.0
 5  *
 6  * description: this program collects info about the user's coins and
 7  * then calculates total number of coins, total dollar value,
 8  * its penny equivalent. The result is then displayed in console and saved
 9  * to a text file.
10  *
11  * Steps taken: first, import required libraries, create variables,
12  * create method to get input, then create a method to print results in console,
13  * then create a method to save result to a text file. Finally, call all methods
14  * in the main function and troubleshoot any errors.
15  *
16  * Opinion: this program was interesting to make and practice Java. I had
17  * a couple syntax errors but quickly found solutions. I also had to change
18  * my approach to the entire program. Overall great experience. I give 5 stars.
19  *
20  */
21 package assignment1;
22
23 import java.util.Scanner;
24 import java.io.PrintStream;
25
26 public class Assignment1 {
27     public static int halfDollars, quarters, dimes,
28                       nickels, pennies, total;
29     public static double value;
30     public static int nextEntry = 0;
31     public static Scanner sc = new Scanner(System.in);
32     public static PrintStream ps;
33
34
35     public static void main(String[] args) throws Exception {
36
37         ps = new PrintStream("output.txt");
38         getInput();
39
40
41
```

```
42          while(nextEntry > -1){
43            getInput();
44          }
45
46          total = halfDollars + quarters + dimes + nickels + pennies;
47          value = halfDollars * 0.5 + quarters * 0.25 + dimes * 0.1 +
48                  nickels * 0.05 + pennies * 0.01;
49
50          printResult();
51          saveResult();
52
53      }
54
55      // collect data from user
56      public static void getInput(){
57        System.out.println("The value of your change will be computed.");
58        System.out.println("Enter -1 now to stop.");
59
60        System.out.println("\nHow Many half dollars do you have? ");
61        nextEntry = sc.nextInt();
62
63        if(nextEntry > -1){
64            halfDollars += nextEntry;
65            System.out.println("\nHow Many quarters do you have? ");
66            quarters += sc.nextInt();
67            System.out.println("\nHow Many dimes do you have? ");
68            dimes += sc.nextInt();
69            System.out.println("\nHow Many nickels do you have? ");
70            nickels += sc.nextInt();
71            System.out.println("\nHow many pennies do you have? ");
72            pennies = sc.nextInt();
73          }
74      }
75
76
77
78      // Display results in console
79      public static void printResult() {
80          System.out.println("You entered:    "        +halfDollars+" half dollars\n" +
81                             "                "+quarters+" quarters\n"+
82                             "                "+dimes+" dimes\n"+
```

```
 83                             "                "+nickels+" nickels\n"+
 84                             "                "+pennies+" pennies\n");
 85
 86         System.out.printf("The value of your %d coins is $%.2f which "
 87                 + "is equivalent to %.0f pennies.\n",
 88                     total, value,value*100);
 89     }
 90
 91     // Save results to "output.txt"
 92     public static void saveResult() throws Exception {
 93         ps.println("You entered:    "        +halfDollars+" half dollars\n" +
 94                             "                "+quarters+" quarters\n"+
 95                             "                "+dimes+" dimes\n"+
 96                             "                "+nickels+" nickels\n"+
 97                             "                "+pennies+" pennies\n");
 98
 99         ps.printf("The value of your %d coins is $%.2f which "
100                 + "is equivalent to %.0f pennies.\n",
101                     total, value,value*100);
102     }
103 }
```