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CSC 1051-1

Project 3

I had a lot of trouble with this project. I spent about 10 hours on it. I struggled with the algorithm in general, and found myself starting over many times. I tried writing the algorithm out by hand and then coding. My goal ended up being to get the program to run without a magic code generated. Instead I gave magic code a value of 4902. The math for the magic code was very difficult for me. I tried different ways to do the math, but my syntax was wrong. I will go back and figure out what I am doing wrong and understand how to generate the magic code. I thought if I could get everything else working then I could go back and compute the magic code number and just add it into the output later. I do understand the CheckOut logic, but without generating the magic code I have nothing to turn in. I needed to finish my lab, so I am turning in what I have completed for my project.

There are many issues I am aware of with this project, and it is very frustrating. One problem I need to figure out is how to end the program after the user does not input an ID of 4 digits two times. Currently, if a user inputs an id that is not 4 digits twice the program will print a goodbye message but the program does not end. Also, my code can be broken down so much better. I have two conditions that are the same. I think if I used a loop it could have been better, but I wasn’t sure how to come up with an algorithm for it. I was all over the place for this assignment. I have working really hard, and it has been challenging, but this project was really disappointing for myself.

I did enjoy the challenge, even though it was really hard. I stayed with the project as long as I could, and I really did give it a lot of effort. I found that I was doing best when I was simply writing one line of code and testing it. Also, I know I am really bad at indenting my code and I need to figure out exactly how to properly indent. This assignment was very tough, I can’t wait to go over it and see exactly what I was doing wrong.

**CheckIn: Source Code**

//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  
 2 // CheckIn.java Author: Kyle Carney  
 3 // Project 3  
 4 //\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  
 5 import java.util.Scanner;  
 6 public class CheckIn  
 7 {  
 8 // variables:  
 9 int id, id2;  
10   
11 public static void main (String[] args){  
12   
13 // algorithm:  
14   
15   
16 Scanner scan = new Scanner(System.in);   
17 // print what is 4 digit id?  
18 System.out.print ("Enter your 4-digit ID: ");  
19 // input id number  
20 int id = scan.nextInt();  
21   
22 // length = digits of id  
23 int length = String.valueOf(id).length();  
24   
25 //if length is 4 digits  
26 if (length == 4) {  
27 //print 3 questions  
28 System.out.print("Welcome. \nPlease answer 3 questions right for the magic code!\n");  
29 //output question 1  
30 System.out.print("How many mens bball championships does Nova have? ");  
31 //input question 1  
32 int question1 = scan.nextInt();  
33 //output question 2  
34 System.out.print("How many mens Super Bowls did Eagles win? ");  
35 //input question 2  
36 int question2 = scan.nextInt();  
37 //output question 3  
38 System.out.print("How many bytes in a kilobyte ");  
39 //input question 3  
40 int question3 = scan.nextInt();  
41 //magic = (id \*331)%1000;  
42 if (question1 == 3 && question2 == 1 & question3 == 1024)  
43 //magic = (id\*331)%1000  
44 //magic = (id \*331)%1000;  
45 System.out.println("You answered the questions correctly.\n" +  
46 "Your magic number is " );  
47 else  
48 System.out.println("Sorry you answered one or more questions wrong.\n" +  
49 "You did not generate a magic code.\n" +  
50 "Thank you. Goodbye!");  
51 }  
52 // if id is not 4 digits  
53 if (length != 4)  
54 // print what is 4 digit id? one last time  
55 System.out.print ("Enter your 4-digit ID: ");  
56 //input 2nd attempt 4 digit id  
57 int id2 = scan.nextInt();  
58 //length = digits of id2  
59 int length2 = String.valueOf(id2).length();  
60   
61 //if id and id2 not 4 digits  
62 if (length != 4 && length2 != 4)  
63 //print id invalid goodbye  
64 System.out.println("Sorry your input for ID is invalid. Goodbye!");  
65 else  
66 //if id2 is 4 digits  
67 if (length2 == 4)  
68 //output question 4  
69 System.out.print("Welcome.\nPlease answer 3 questions right for the magic code!\n" +  
70 "How many mens bball championships does Nova have? ");  
71 //input question 4   
72 int question4 = scan.nextInt();  
73 //output question 5  
74 System.out.print("How many mens Super Bowls did Eagles win? ");  
75 //input question 5  
76 int question5 = scan.nextInt();  
77 //output question 6  
78 System.out.print("How many bytes in a kilobyte ");  
79 //input question 6  
80 int question6 = scan.nextInt();  
81 // if all questions are right  
82 if (question4 == 3 && question5 == 1 && question6 == 1024)  
83 // print magic number  
84 System.out.println("You answered the questions correctly.\n" +  
85 "Your magic number is 4902");  
86 //else   
87 else  
88 //print questions wrong no magic number goodbye   
89 System.out.println("Sorry you answered one or more questions wrong.\n" +  
90 "You did not generate a magic code\n" +  
91 "Thank you. Goodbye!");  
92 }   
93 }  
94   
95   
96

**CheckIn: Test Runs**

* **entering a valid id and answering all questions correctly (at least 2 runs, with different id's)**

 ----jGRASP exec: java CheckIn  
Enter your 4-digit ID: 1313  
Welcome.   
Please answer 3 questions right for the magic code!  
How many mens bball championships does Nova have? 3  
How many mens Super Bowls did Eagles win? 1  
How many bytes in a kilobyte 1024  
You answered the questions correctly.  
Your magic number is 4902  


 ----jGRASP exec: java CheckIn  
Enter your 4-digit ID: 4003  
Welcome.   
Please answer 3 questions right for the magic code!  
How many mens bball championships does Nova have? 3  
How many mens Super Bowls did Eagles win? 1  
How many bytes in a kilobyte 1024  
You answered the questions correctly.  
Your magic number is 4902  


* **entering an invalid id (such as 9999912 - too many digits) but then entering a valid id on the second try, and answering all questions correctly**

 ----jGRASP exec: java CheckIn  
Enter your 4-digit ID: 13913910  
Enter your 4-digit ID: 4993  
Welcome.  
Please answer 3 questions right for the magic code!  
How many mens bball championships does Nova have? 3  
How many mens Super Bowls did Eagles win? 1  
How many bytes in a kilobyte 1024  
You answered the questions correctly.  
Your magic number is 4902  
  
 ----jGRASP: operation complete.

* **entering an invalid id twice in a row (program should issue an error message and terminate)**

 ----jGRASP exec: java CheckIn  
Enter your 4-digit ID: 12  
Enter your 4-digit ID: 31313  
Sorry your input for ID is invalid. Goodbye!  


* **entering a valid id and answering one or more questions incorrectly (at least 2 runs, with the same id but different mistakes)**

 ----jGRASP exec: java CheckIn  
Enter your 4-digit ID: 29  
Enter your 4-digit ID: 1392  
Welcome.  
Please answer 3 questions right for the magic code!  
How many mens bball championships does Nova have? 3  
How many mens Super Bowls did Eagles win? 19  
How many bytes in a kilobyte 1024  
Sorry you answered one or more questions wrong.  
You did not generate a magic code  
Thank you. Goodbye!  
  
 ----jGRASP: operation complete.  


 ----jGRASP exec: java CheckIn  
Enter your 4-digit ID: 29  
Enter your 4-digit ID: 1392  
Welcome.  
Please answer 3 questions right for the magic code!  
How many mens bball championships does Nova have? 20  
How many mens Super Bowls did Eagles win? 1  
How many bytes in a kilobyte 1024  
Sorry you answered one or more questions wrong.  
You did not generate a magic code  
Thank you. Goodbye!  
  
 ----jGRASP: operation complete.  
