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1 # name: Justin Dang
2 # Student ID: 1148267
3 # Homework 2, PS1
4 # Randomly generates a two-digit number and prompts the user to enter a single
5 #two-digit number, and determines whether the user wins according to the certain rules
6
7 #variables along with an imported function
8 import random
9 USERINPUT = 49
10 GAME = True
11 print('Welcome to the Lottery!')
12
13 while GAME:
14     #input
15     USERINPUT = int(input('Please enter a single two-digit number or enter 0 to'
16                            ' quit.'))
17 #generates lottery number and separates the user and the lottery number into
18 #single digits
19 COMPUTER = random.randint(10,99)
20 COMPUTER1 = COMPUTER%10
21 COMPUTER10 = int(COMPUTER/10)
22 USERINPUT1 = USERINPUT%10
23 USERINPUT10 = int(USERINPUT/10)
24 #if statements that set up conditions for winning and losing
25 if USERINPUT1 == COMPUTER1:
26     if USERINPUT10 == COMPUTER10:
27         print('Congratulations! You guessed the exact number which was', USERINPUT,
28               'You won $10,000!')
29     elif USERINPUT1 == COMPUTER1 or USERINPUT1 == COMPUTER10:
30         if USERINPUT10 == COMPUTER1 or USERINPUT10 == COMPUTER10:
31             print('So close! You guessed the right digits but in the wrong order!'
32                   'you guessed', USERINPUT, 'and the lottery number was', COMPUTER,
33                   ', you won $3,000')
34         if USERINPUT1 == COMPUTER1 or USERINPUT1 == COMPUTER10:
35             print('You only guessed one digit. The lottery number was', COMPUTER,
36                   ' and you guessed', USERINPUT, ', you won $1,000')
37         elif USERINPUT10 == COMPUTER1 or USERINPUT10 == COMPUTER10:
38             print('You only guessed one digit. The lottery number was', COMPUTER,
39                   ' and you guessed', USERINPUT, ', you won $1,000')
40 #ends the loop
41 if USERINPUT == 0:
42     print('Goodbye!')
43     GAME = False
44 else:
45     print('You failed to guess the lottery number which was', COMPUTER)
46
47 ## Output with 5 test cases
48 ##
49 ## Test Case 1.
50 ##
51 ##Welcome to the Lottery!
52 ##Please enter a single two-digit number or enter 0 to quit.23
53 ##You failed to guess the lottery number which was 90
54 ##Please enter a single two-digit number or enter 0 to quit.43
55 ##You failed to guess the lottery number which was 58
56 ##Please enter a single two-digit number or enter 0 to quit.23
57 ##You only guessed one digit. The lottery number was 72 and you guessed 23 , you won $1,000
58 ##You failed to guess the lottery number which was 72
59 ##4Please enter a single two-digit number or enter 0 to quit.3
60 ##So close! You guessed the right digits but in the wrong order!you guessed 3 and the lottery number was 30 , you won $3,000
61 ##You only guessed one digit. The lottery number was 30 and you guessed 3 , you won $1,000
62 ##You failed to guess the lottery number which was 30
63 ##2Please enter a single two-digit number or enter 0 to quit.3
64 ##You only guessed one digit. The lottery number was 35 and you guessed 3 , you won $1,000
65 ##You failed to guess the lottery number which was 35
66 ##Please enter a single two-digit number or enter 0 to quit.43
67 ##You failed to guess the lottery number which was 82
68 ##Please enter a single two-digit number or enter 0 to quit.23
69 ##You failed to guess the lottery number which was 74

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69 ##You failed to guess the lottery number which was 74
70 ##Please enter a single two-digit number or enter 0 to quit.0
71 ##Goodbye!
72
73 ## Test Case 2.
74 ##
75 ##Welcome to the Lottery!
76 ##Please enter a single two-digit number or enter 0 to quit.0
77 ##Goodbye!
78
79 ## Test Case 3.
80 ##
81 ##Welcome to the Lottery!
82 ##Please enter a single two-digit number or enter 0 to quit.10
83 ##You failed to guess the lottery number which was 26
84 ##Please enter a single two-digit number or enter 0 to quit.21
85 ##You only guessed one digit. The lottery number was 32 and you guessed 21 , you won $1,000
86 ##You failed to guess the lottery number which was 32
87 ##Please enter a single two-digit number or enter 0 to quit.92
88 ##You only guessed one digit. The lottery number was 89 and you guessed 92 , you won $1,000
89 ##You failed to guess the lottery number which was 89
90 ##Please enter a single two-digit number or enter 0 to quit.83
91 ##You only guessed one digit. The lottery number was 36 and you guessed 83 , you won $1,000
92 ##You failed to guess the lottery number which was 36
93 ##Please enter a single two-digit number or enter 0 to quit.74
94 ##You only guessed one digit. The lottery number was 48 and you guessed 74 , you won $1,000
95 ##You failed to guess the lottery number which was 48
96 ##Please enter a single two-digit number or enter 0 to quit.65
97 ##Congratulations! You guessed the exact number which was 65 You won $10,000!
98 ##You only guessed one digit. The lottery number was 65 and you guessed 65 , you won $1,000
99 ##You failed to guess the lottery number which was 65
100 ##Please enter a single two-digit number or enter 0 to quit.0
101 ##Goodbye!
102
103 ## Test Case 4.
104 ##
105 ##Welcome to the Lottery!
106 ##Please enter a single two-digit number or enter 0 to quit.23
107 ##You only guessed one digit. The lottery number was 92 and you guessed 23 , you won $1,000
108 ##You failed to guess the lottery number which was 92
109 ##Please enter a single two-digit number or enter 0 to quit.45
110 ##You failed to guess the lottery number which was 29
111 ##Please enter a single two-digit number or enter 0 to quit.67
112 ##You failed to guess the lottery number which was 42
113 ##Please enter a single two-digit number or enter 0 to quit.89
114 ##You failed to guess the lottery number which was 61
115 ##Please enter a single two-digit number or enter 0 to quit.0
116 ##You only guessed one digit. The lottery number was 70 and you guessed 0 , you won $1,000
117 ##Goodbye!
118
119 ## Test Case 5.
120 ##
121 ##Welcome to the Lottery!
122 ##Please enter a single two-digit number or enter 0 to quit.12
123 ##You failed to guess the lottery number which was 98
124 ##Please enter a single two-digit number or enter 0 to quit.0
125 ##You only guessed one digit. The lottery number was 20 and you guessed 0 , you won $1,000
126 ##Goodbye!
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