

Courseware Updates & News Calendar Wiki Discussion Progress

VALID WORDS (10/10 points)

At this point, we have written code to generate a random hand and display that hand to the user. We can also ask the user for a word (Python's <code>raw_input</code>) and score the word (using your <code>getWordScore</code>). However, at this point we have not written any code to verify that a word given by a player obeys the rules of the game. A *valid* word is in the word list; **and** it is composed entirely of letters from the current hand. Implement the <code>isValidWord</code> function.

Testing: Make sure the <code>test_isValidWord</code> tests pass. In addition, you will want to test your implementation by calling it multiple times on the same hand - what should the correct behavior be? Additionally, the empty string ('') is not a valid word - if you code this function correctly, you shouldn't need an additional check for this condition.

Fill in the code for <code>isValidWord</code> in <code>ps4a.py</code> and be sure you've passed the appropriate tests in <code>test_ps4a.py</code> before pasting your function definition here.

Canopy specific instructions: If you modify code in ps4a.py go to

Run -> Restart Kernel (or hit the CTRL with the dot on your keyboard)

before running $test_ps4a.py$. You have to do this every time you modify the file ps4a.py and want to run the file $test_ps4a.py$, otherwise changes to the former will not be incorporated in the latter.

```
Help
```

```
15
      for i in range(len(word)):
16
         listy.append(word[i])
17
18
19
20
      flag = 0
21
      hand = hand.copy()
22
23
24
      for wordy in wordList:
         if word == wordy:
25
26
            for x in listy:
27
               if x in hand:
                   hand[x] = 1
29
                   if hand[x] < 0:
30
                      flag = 0
```

Correct

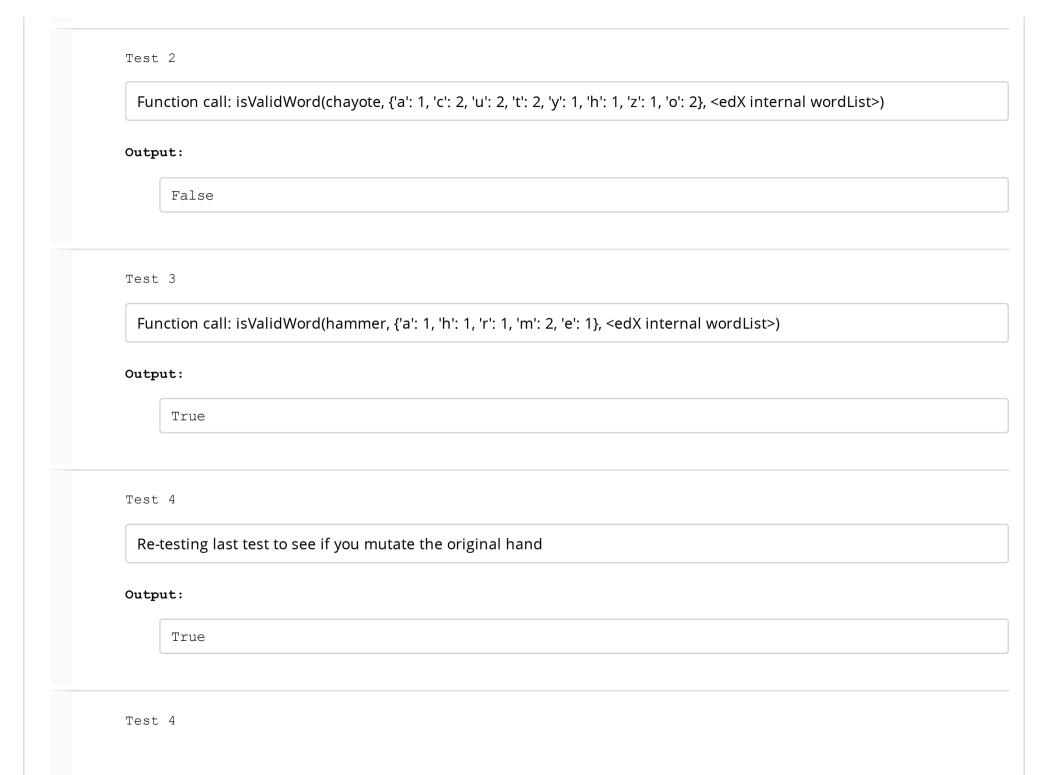
Test results

```
Test 1

Function call: isValidWord(kwijibo, {'b': 1, 'i': 2, 'k': 1, 'j': 1, 'o': 1, 'w': 1}, <edX internal wordList>)

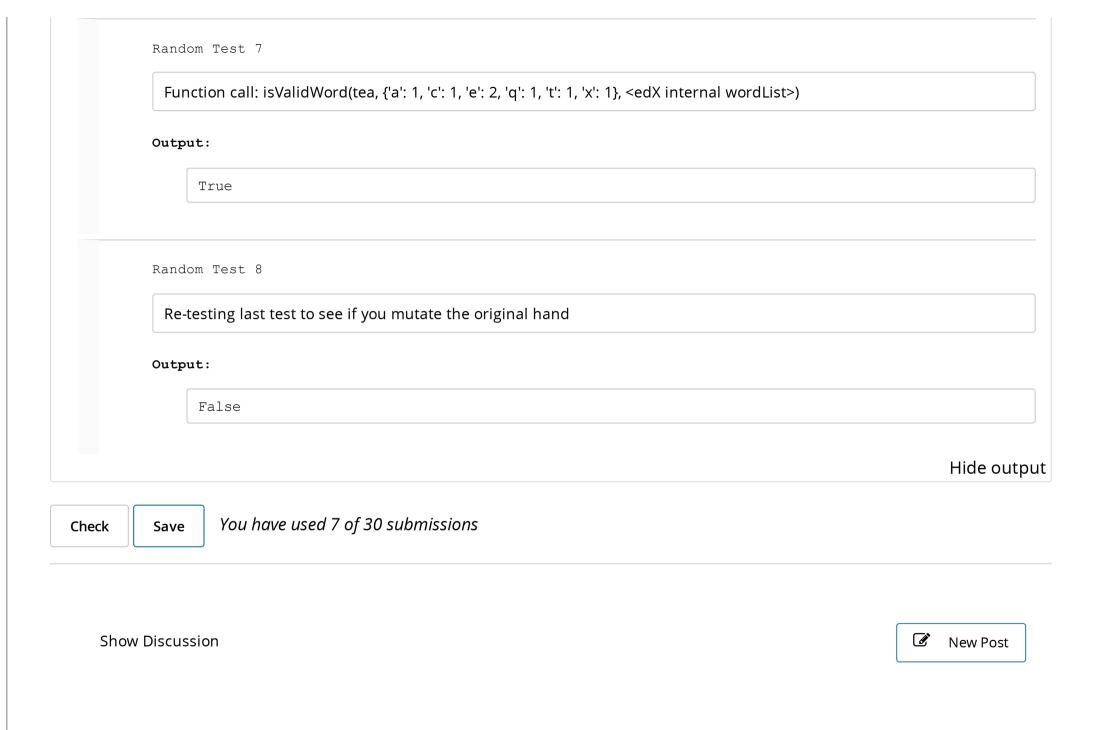
Output:

False
```



```
Function call: isValidWord(rapture, {'a': 3, 'e': 1, 'p': 2, 'r': 1, 'u': 1, 't': 1}, <edX internal wordList>)
Output:
       False
Random Test 1
 Function call: isValidWord(shrimp, {'b': 1, 'i': 1, 'k': 1, 'j': 2, 'q': 1, 'p': 1, 't': 1, 'v': 1, 'y': 1, 'z': 1}, <edX internal wordList>)
Output:
       False
Random Test 2
 Function call: isValidWord(coffee, {'e': 2, 'd': 1, 'g': 2, 'f': 1, 'i': 1, 'n': 1, 'q': 1, 'w': 1, 'y': 2}, <edX internal wordList>)
Output:
       False
Random Test 3
 Function call: isValidWord(carrot, {'a': 1, 'c': 1, 'g': 1, 'j': 1, 'o': 1, 'n': 1, 'r': 2, 't': 1, 'z': 1}, <edX internal wordList>)
Output:
```

True Random Test 4 Re-testing last test to see if you mutate the original hand Output: False Random Test 5 Function call: isValidWord(pear, {'h': 2, 'm': 2, 'o': 1, 'q': 1, 'p': 1, 'r': 1, 't': 1, 'w': 1, 'v': 1, 'y': 1}, <edX internal wordList>) Output: False Random Test 6 Function call: isValidWord(hair, {'f': 1, 'i': 2, 'h': 1, 'l': 2, 'p': 1, 'r': 1, 't': 2, 'w': 1, 'x': 1}, <edX internal wordList>) Output: False





EdX offers interactive online classes and MOOCs from the world's best universities. Online courses from MITx, HarvardX, BerkeleyX, UTx and many other universities. Topics include biology, business, chemistry, computer science, economics, finance, electronics, engineering, food and nutrition, history, humanities, law, literature, math, medicine, music, philosophy, physics, science, statistics and more. EdX is a non-profit online initiative created by founding partners Harvard and MIT.

© 2015 edX Inc.

EdX, Open edX, and the edX and Open edX logos are registered trademarks or trademarks of edX Inc.

Terms of Service and Honor Code

Privacy Policy (Revised 4/16/2014)

About edX

About

News

Contact

FAQ

edX Blog

Donate to edX

lobs at edX

Follow Us

Twitter



Facebook



Meetup



LinkedIn



S+ Google+