

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 `raw_input`) and score the word (using your `getWordScore`). 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 `isValidWord` function.

Testing: Make sure the `test_isValidWord` 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 `isValidWord` in `ps4a.py` and be sure you've passed the appropriate tests in `test_ps4a.py` 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.

```
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:  
25         if word == wordy:  
26             for x in listy:  
27                 if x in hand:  
28                     hand[x] -= 1  
29                     if hand[x] < 0:  
30                         flag = 0
```

Correct

Test results

Hide output

CORRECT

Test 1

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

Output:

False

Test 2

Function call: isValidWord(chayote, {'a': 1, 'c': 2, 'u': 2, 't': 2, 'y': 1, 'h': 1, 'z': 1, 'o': 2}, <edX internal wordList>)

Output:

False

Test 3

Function call: isValidWord(hammer, {'a': 1, 'h': 1, 'r': 1, 'm': 2, 'e': 1}, <edX internal wordList>)

Output:

True

Test 4

Re-testing last test to see if you mutate the original hand

Output:

True

Test 4

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, 'x': 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

Random Test 7

Function call: isValidWord(tea, {'a': 1, 'c': 1, 'e': 2, 'q': 1, 't': 1, 'x': 1}, <edX internal wordList>)

Output:

True

Random Test 8

Re-testing last test to see if you mutate the original hand

Output:

False

Hide output

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You have used 7 of 30 submissions

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