

Curso > Week 4... > Proble... > Proble...

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# Problem 5 - Playing a Hand

Problem Set due Jul 16, 2020 20:30 -03 Completo

# Problem 5 - Playing a Hand

10/10 points (graded)

In <code>ps4a.py</code>, note that in the function <code>playHand</code>, there is a bunch of <code>pseudocode</code>. This pseudocode is provided to help guide you in writing your function. Check out the <code>Why Pseudocode?</code> resource to learn more about the What and Why of Pseudocode before you start coding your solution.

**Note:** Do **not** assume that there will always be 7 letters in a hand! The parameter n represents the size of the hand.

**Testing:** Before testing your code in the answer box, try out your implementation as if you were playing the game. Here is some example output of playHand:

```
Test Cases

Case #1

Function Call:

wordList = loadWords()
playHand({'h':1, 'i':1, 'c':1, 'z':1, 'm':2, 'a':1}, wordList, 7)

Output:
Output:
```

```
Current Hand: a c i h m m z
Enter word, or a "." to indicate that you are finished: him
"him" earned 24 points. Total: 24 points
Current Hand: a c m z
Enter word, or a "." to indicate that you are finished: cam
"cam" earned 21 points. Total: 45 points
Current Hand: z
Enter word, or a "." to indicate that you are finished: .
Goodbye! Total score: 45 points.
```

## Case #2

#### **Function Call:**

```
wordList = loadWords()
playHand({'w':1, 's':1, 't':2, 'a':1, 'o':1, 'f':1}, wordList, 7)
```

### Output:

```
Current Hand: a s t t w f o
Enter word, or a "." to indicate that you are finished: tow
"tow" earned 18 points. Total: 18 points
Current Hand: a s t f
Enter word, or a "." to indicate that you are finished: tasf
Invalid word, please try again.
Current Hand: a s t f
Enter word, or a "." to indicate that you are finished: fast
"fast" earned 28 points. Total: 46 points
Run out of letters. Total score: 46 points.
```

#### Case #3

#### **Function Call:**

```
wordList = loadWords()
playHand({'n':1, 'e':1, 't':1, 'a':1, 'r':1, 'i':2}, wordList, 7)
```

## Output:

```
Current Hand: a r e t i i n
Enter word, or a "." to indicate that you are finished: inertia
"inertia" earned 99 points. Total: 99 points
Run out of letters. Total score: 99 points.
```

## <u>Additional Testing</u>

Be sure that, in addition to the listed tests, you test the same basic test conditions with varying values of n. n will never be smaller than the number of letters in the hand.

```
1 def playHand(hand, wordList, n):
 3
      Allows the user to play the given hand, as follows:
 4
 5
      * The hand is displayed.
 6
      * The user may input a word or a single period (the string ".")
7
        to indicate they're done playing
 8
      * Invalid words are rejected, and a message is displayed asking
9
        the user to choose another word until they enter a valid word or "."
      * When a valid word is entered, it uses up letters from the hand.
10
11
      * After every valid word: the score for that word is displayed,
12
        the remaining letters in the hand are displayed, and the user
13
        is asked to input another word.
14
      * The sum of the word scores is displayed when the hand finishes.
15
      * The hand finishes when there are no more unused letters or the user
```

Press ESC then TAB or click outside of the code editor to exit

#### Correta

## Test results

```
CORRECT

Function call: playHand({1: 1, m: 1, p: 1, u: 1})'<edX internal wordList>', 4

Test 1: Using all the letters in the hand on the first guess

Output:
```

Current Hand: p 1 m u

Enter word, or a "." to indicate that you are finished:plum

"plum" earned 82 points. Total: 82 points

Run out of letters. Total score: 82 points.

None

Function call: playHand({a: 1, z: 1})'<edX internal wordList>', 2

Test 2: Guessing incorrectly, then correctly

#### Output:

Current Hand: a z

Enter word, or a "." to indicate that you are finished:zo

Invalid word, please try again.

Current Hand: a z

Enter word, or a "." to indicate that you are finished:za

"za" earned 72 points. Total: 72 points

Run out of letters. Total score: 72 points.

None

Function call: playHand({i: 1, o: 1, q: 1})'<edX internal wordList>', 3

Test 3: Guessing word, then quitting

#### Output:

Current Hand: i q o

Enter word, or a "." to indicate that you are finished:qi

"qi" earned 22 points. Total: 22 points

Current Hand: o

Enter word, or a "." to indicate that you are finished:.

Goodbye! Total score: 22 points.

None

Function call: playHand( $\{b: 1, s: 1, x: 2, y: 1, z: 2\}$ )'<edX internal wordList>', 7

Test 4: Can't make a word:(

## Output:

Current Hand: b s x x z z y

Enter word, or a "." to indicate that you are finished:.

Goodbye! Total score: 0 points.

None

Function call: playHand( $\{a: 2, e: 2, p: 1, r: 1, t: 1\}$ )'<edX internal wordList>', 7

Test 5: Full hand transcript - using all letters

## Output:

Current Hand: p e e t r a a

Enter word, or a "." to indicate that you are finished:pear

"pear" earned 24 points. Total: 24 points

Current Hand: e a t

Enter word, or a "." to indicate that you are finished:tea

"tea" earned 9 points. Total: 33 points

Run out of letters. Total score: 33 points.

None

Function call:  $playHand({a: 2, e: 1, p: 2, r: 1, z: 1})'<edX internal wordList>', 7$ 

Test 6: Full hand transcript - can't use every letter

### Output:

Current Hand: p p e r z a a

Enter word, or a "." to indicate that you are finished:pear

"pear" earned 24 points. Total: 24 points

Current Hand: p a z

Enter word, or a "." to indicate that you are finished:za

"za" earned 22 points. Total: 46 points

Current Hand: p

Enter word, or a "." to indicate that you are finished:p

Invalid word, please try again.

Current Hand: p

Enter word, or a "." to indicate that you are finished:.

Goodbye! Total score: 46 points.

None

Function call: playHand( $\{a: 1, e: 2, f: 1, g: 1, k: 1, o: 1, q: 1, s: 1, t: 1\}$ )'<edX internal wordList>', 10

#### Test 7: Randomized Test

#### Output:

Current Hand: e e a o f g s q k t
Enter word, or a "." to indicate that you are finished:k
Invalid word, please try again.

Current Hand: e e a o f g s q k t Enter word, or a "." to indicate that you are finished:chayote Invalid word, please try again.

Current Hand: e e a o f g s q k t Enter word, or a "." to indicate that you are finished:kwijibo Invalid word, please try again.

Current Hand: e e a o f g s q k t
Enter word, or a "." to indicate that you are finished:tea
"tea" earned 9 points. Total: 9 points

Current Hand: e o k f g s q

Enter word, or a "." to indicate that you are finished:.

Goodbye! Total score: 9 points.

None

<u>Hide output</u>

**Note:** Letters in the dictionary for the test cases in "See full output" are actually strings. When you test your code, they should be {"a": 1, "e": 1,...} not {a: 1, e: 1,...}.

Enviar

You have used 3 of 30 attempts

Suas respostas foram salvas mas não avaliadas. Clique 'Enviar' para corrigi-las.

# Problem 5 - Playing a Hand

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?	unable to reproduce the grader's output  The grader raised a couple of error type such as pasted below. I am , however, not able to reproduce	7
2	"A Cool Trick about 'print'"  In the next question (Problem 6), there is a tip regarding how to use the print function to have differ	5
?	What do these errors mean?  There was a problem running your solution (Staff debug: L379). We couldn't run your solution (Staff	2
?	The function is printing before 'Current Hand: ' The function `displayHand(hand)` is printing before `'Current Hand: '` Even if in my code it is in the	2
€	Invalid grader reply  "Invalid grader reply. Please contact the course staff." This message appears when I submit my code	4
?	Can we reference a other functions i.e display_hand and update_hand for problem 5?  IN order to get update hand and display hand it is easier to reference a separate function. Can grade	1

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