

Problem 5 - Playing a Hand

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10.0 points possible (graded)

In `ps4a.py`, note that in the function `playHand`, there is a bunch of *pseudocode*. This pseudocode is provided to help guide you in writing your function. Check out the [Why Pseudocode?](#) 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:

```
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.
```

Additional Testing

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):
2     """
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 "."
10    * When a valid word is entered, it uses up letters from the hand.
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
16    inputs a "."
```

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

Unanswered

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,...}.
