# Problem 6 - Playing a Game

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# Problem 6 - Playing a Game

15.0 points possible (graded)

A game consists of playing multiple hands. We need to implement one final function to complete our word-game program. Write the code that implements the <code>playGame</code> function. You should remove the code that is currently uncommented in the <code>playGame</code> body. Read through the specification and make sure you understand what this function accomplishes. For the game, you should use the <code>HAND\_SIZE</code> constant to determine the number of cards in a hand.

**Testing:** Try out this implementation as if you were playing the game. Try out different values for <code>HAND\_SIZE</code> with your program, and be sure that you can play the wordgame with different hand sizes by modifying *only* the variable <code>HAND\_SIZE</code>.

#### Sample Output

Here is how the game output should look...

```
Loading word list from file...
   83667 words loaded.
Enter n to deal a new hand, r to replay the last hand, or e to end game: r
You have not played a hand yet. Please play a new hand first!
Enter n to deal a new hand, r to replay the last hand, or e to end game: n
Current Hand: p z u t t t o
Enter word, or a "." to indicate that you are finished: tot
"tot" earned 9 points. Total: 9 points
Current Hand: p z u t
Enter word, or a "." to indicate that you are finished: .
Goodbye! Total score: 9 points.
Enter n to deal a new hand, r to replay the last hand, or e to end game: r
Current Hand: p z u t t t o
Enter word, or a "." to indicate that you are finished: top
"top" earned 15 points. Total: 15 points
Current Hand: z u t t
Enter word, or a "." to indicate that you are finished: tu
```

```
Invalid word, please try again.
Current Hand: z u t t
Enter word, or a "." to indicate that you are finished: .
Goodbye! Total score: 15 points.
Enter n to deal a new hand, r to replay the last hand, or e to end game: n
Current Hand: a q w f f i p
Enter word, or a "." to indicate that you are finished: paw
"paw" earned 24 points. Total: 24 points
Current Hand: q f f i
Enter word, or a "." to indicate that you are finished: qi
"qi" earned 22 points. Total: 46 points
Current Hand: f f
Enter word, or a "." to indicate that you are finished: .
Goodbye! Total score: 46 points.
Enter n to deal a new hand, r to replay the last hand, or e to end game: n
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.
Enter n to deal a new hand, r to replay the last hand, or e to end game: x
Invalid command.
Enter n to deal a new hand, r to replay the last hand, or e to end game: e
```

# Hints about the output

Be sure to inspect the above sample output carefully - very little is actually printed out in this function specifically. Most of the printed output actually comes from the code you wrote in <code>playHand</code> - be sure that your code is modular and uses function calls to the <code>playHand</code> helper function!

You should also make calls to the dealHand helper function. You shouldn't make calls to any other helper function that we've written so far - in fact, this function can be written in about 15-20 lines of code.

Here is the above output, with the output from playHand obscured:

```
Loading word list from file...
83667 words loaded.
Enter n to deal a new hand, r to replay the last hand, or e to end game: r
You have not played a hand yet. Please play a new hand first!
```

Enter n to deal a new hand, r to replay the last hand, or e to end game: n <call to playHand>

Enter n to deal a new hand, r to replay the last hand, or e to end game: n <call to playHand>

Enter n to deal a new hand, r to replay the last hand, or e to end game: n <call to playHand>

Enter n to deal a new hand, r to replay the last hand, or e to end game: x Invalid command.

Enter n to deal a new hand, r to replay the last hand, or e to end game: e

Hopefully this hint makes the problem seem a bit more approachable.

## **Entering Your Code**

Be sure to only paste your definition for playGame in the following box. Do not include any other function definitions.

## A Cool Trick about 'print'

A cool trick about print: you can make two or more print statements print to the same line! Try out the following code. It will separate the first and second line with a space, and the second and third line with a "?" rather than putting each on a new line.

```
print('Hello', end = " ")
print('world', end="?")
print('!')
```

```
1 def playGame(wordList):
 2
 3
      Allow the user to play an arbitrary number of hands.
 4
 5
      1) Asks the user to input 'n' or 'r' or 'e'.
 6
        * If the user inputs 'n', let the user play a new (random) hand.
 7
        * If the user inputs 'r', let the user play the last hand again.
 8
        * If the user inputs 'e', exit the game.
 9
        * If the user inputs anything else, tell them their input was invalid.
10
11
      2) When done playing the hand, repeat from step 1
      .....
12
13
      # TO DO ... <-- Remove this comment when you code this function
14
```

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

Unanswered

**Note:** the <code>input</code> function on Spyder may print an extra newline. That's ok. Do not try to move text backwards using <code>end='\b'</code> in a print statement