## PLAYING A GAME  (10/10 points)

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 `playGame` function. You should remove the code that is currently uncommented in the `playGame` body. Read through the specification and make sure you understand what this function accomplishes. For the game, you should use the `HAND_SIZE` 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 `HAND_SIZE` with your program, and be sure that you can play the wordgame with different hand sizes by modifying *only* the variable `HAND_SIZE`.

---

### 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 `playHand` - be sure that your code is modular and uses function calls to the `playHand` 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 if you separate them with a comma! Try out the following code:

```
print 'Hello ',
print 'world',
print '!'
```

```
16    while(True):
17        inp = raw_input("Enter n to deal a new hand, r to replay the last hand, or e to end game:")
18        if inp != 'n' and count == 0:
19            print 'You have not played a hand yet. Please play a new hand first!'
20        elif inp == 'n':
21            count = 1
22            hand = dealHand(HAND_SIZE)
23            playHand(hand, wordList, HAND_SIZE)
24        elif inp == 'r':
25            playHand(hand, wordList, HAND_SIZE)
26
27        elif inp == 'e':
28            break
29        else:
30            print 'Invalid command.'
31
```

Correct

# Test results

Hide output

**CORRECT**

Function call: playGame(<edX internal wordList>)

Test 1: Playing a single game, then quitting.

**Output:**

```
Enter n to deal a new hand, r to replay the last hand, or e to end game:n
Hand passed to playHand:  a c b
<playHand execution not shown for grading brevity>
Enter n to deal a new hand, r to replay the last hand, or e to end game:e
None
```

Function call: playGame(<edX internal wordList>)

Test 2: Playing three games, then quitting.

**Output:**

```
Enter n to deal a new hand, r to replay the last hand, or e to end game:n
Hand passed to playHand:  a z
<playHand execution not shown for grading brevity>
Enter n to deal a new hand, r to replay the last hand, or e to end game:n
Hand passed to playHand:  q i
<playHand execution not shown for grading brevity>
Enter n to deal a new hand, r to replay the last hand, or e to end game:n
Hand passed to playHand:  d o
<playHand execution not shown for grading brevity>
Enter n to deal a new hand, r to replay the last hand, or e to end game:e
None
```

Function call: playGame(<edX internal wordList>)

Test 3: Replaying a hand.

**Output:**

```
Enter n to deal a new hand, r to replay the last hand, or e to end game:n
Hand passed to playHand:  a b t o
<playHand execution not shown for grading brevity>
Enter n to deal a new hand, r to replay the last hand, or e to end game:r
Hand passed to playHand:  a b t o
<playHand execution not shown for grading brevity>
Enter n to deal a new hand, r to replay the last hand, or e to end game:e
None
```

Function call: playGame(<edX internal wordList>)

Test 4: Replaying a hand.

**Output:**

```
Enter n to deal a new hand, r to replay the last hand, or e to end game:n
Hand passed to playHand:  b e e f l o t t z
<playHand execution not shown for grading brevity>
Enter n to deal a new hand, r to replay the last hand, or e to end game:r
Hand passed to playHand:  b e e f l o t t z
<playHand execution not shown for grading brevity>
Enter n to deal a new hand, r to replay the last hand, or e to end game:r
Hand passed to playHand:  b e e f l o t t z
<playHand execution not shown for grading brevity>
Enter n to deal a new hand, r to replay the last hand, or e to end game:r
Hand passed to playHand:  b e e f l o t t z
<playHand execution not shown for grading brevity>
Enter n to deal a new hand, r to replay the last hand, or e to end game:e
None
```

Function call: playGame(<edX internal wordList>)

Test 5: Nothing should break if I call 'r' first - you should just print a message to the user if they do this. User should be able to enter 'r' endlessly and the message should always display. (Hint: use a loop for this!)

**Output:**

```
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: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: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: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: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
Hand passed to playHand:  a a p r e e t
<playHand execution not shown for grading brevity>
Enter n to deal a new hand, r to replay the last hand, or e to end game:e
None
```

Function call: playGame(<edX internal wordList>)

Test 6: Invalid input test. If the input is invalid, a message - 'Invalid command.' - should print out.

**Output:**

```
Enter n to deal a new hand, r to replay the last hand, or e to end game:n
Hand passed to playHand:  a a a i i j q s t v
<playHand execution not shown for grading brevity>
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:y
Invalid command.
Enter n to deal a new hand, r to replay the last hand, or e to end game:z
Invalid command.
Enter n to deal a new hand, r to replay the last hand, or e to end game:k
Invalid command.
Enter n to deal a new hand, r to replay the last hand, or e to end game:s
Invalid command.
Enter n to deal a new hand, r to replay the last hand, or e to end game:w
Invalid command.
Enter n to deal a new hand, r to replay the last hand, or e to end game:e
None
```

Hide output

Check    Save    *You have used 10 of 30 submissions*

Hide Discussion                                    New Post

## What does it mean by HAND_SIZE not passed properly?

question posted about an hour ago by **kanv**

0 Votes   **+**

★

•••

What does it mean by HAND_SIZE not passed properly?

1 response

↩ Add A Response

**evanroode**                                                    0 Votes   **+**

about an hour ago                                                         •••

are you redefining the variable instead of using the value you get predefined? Do you actually use HAND_SIZE and not using specific numbers?

yes. getting any random value for the variable HAND_SIZE, I am passing the variable HAND_SIZE          •••
to the dealHand function. is that acceptable?

posted about an hour ago by **akkisinghpanchaal**

you are not supposed to set HAND_SIZE. It is given a value you have to use.          •••

— Collapse discussion

# Grader error?

0 Votes

**+**

**★**

**...**

discussion posted about 2 hours ago by **MBlonski**

My output is: Enter n to deal a new hand, r to replay the last hand, or e to end game: n Hand passed to playHand: a a a i i j q s t v None

**\* ERROR: Failed to ask for input! Expected 'Enter n to deal a new hand, r to replay the last hand, or e to end game: x' Got 'None' \***

in def playGame(wordList) I have a line: inp = raw_input('Enter n to deal a new hand, r to replay the last hand, or e to end game: ')

What's the problem???

2 responses

↩  Add A Response

**evanroode**

0 Votes

**+**

about 2 hours ago

**...**

━  Collapse discussion

## Range of HAND_SIZE?

0 Votes  **+**

question posted about 2 hours ago by **akkisinghpanchaal**

★

⋯

can someone tell what the limit of HAND_SIZE is?

## 1 response

↩ Add A Response

---

**evanroode**

0 Votes  **+**

⋯

about 2 hours ago

it shouldn't matter .... your code shouldn't depend on the exact value you get runtime.

---

What does it mean by HAND_SIZE not passed properly?

⋯

posted about 2 hours ago by **kanv**

---

It likely means you are making up your own value for the hand size instead of using HAND_SIZE

⋯

posted about an hour ago by **dweick**   COMMUNITY TA

━ Collapse discussion

"Error: Your code called 'dealHand' more times than necessary. Be sure you are following the program specifications."

**dweick**   COMMUNITY TA                                          1 Vote   **+**

about 3 hours ago - marked as answer about 2 hours ago by **ana2bell**   STAFF   **...**

Only call dealHand() when the user requests a new game with the 'n' input

Show Comments (2) ▾

0 other responses

↩  Add A Response

**Post a response:**

━  Collapse discussion

*This post is visible to everyone.*

## struggling with user inputs r

question posted about 3 hours ago by **palonke**

supposed to be the last obstacle on the way to get the function working. Repeating the hand from previous round works fine but triggering the...

**+** Expand discussion

*This post is visible to everyone.*

## returning to playGame from playHand when user enters '.'

question posted about 4 hours ago by **amastron**

Are we supposed to be able to solve this problem without altering anything outside of playGame?

I ask because there needs to be a way for playHand...

**+** Expand discussion

## basic set up of if condition combined with several bools

question posted about 4 hours ago by **palonke**

hope my question is not too basic. My testing is something along:

```
if letter neither 'a' nor 'b' nor 'c'
    do this
else:
 …
```

**+** Expand discussion

1 response

↩ Add A Response

**pal_sch**  COMMUNITY TA                                                    0 Votes  **+**

about 4 hours ago - endorsed about 4 hours ago by **ana2bell**  STAFF        **...**

You shouldn't be defining `HAND_SIZE` but instead using the value given by the grader.

---

WHAT DOES IT MEAN "INSTED USING THE VALUE GIVEN BY THE GRADER"            **...**

posted about 2 hours ago by **akkisinghpanchaal**

---

Do not define the HAND_SIZE variable in your own code.                    **...**

posted about an hour ago by **OttoDidact**

---

```
Add a comment
```

Showing all responses

**Post a response:**

— Collapse discussion

*This post is visible to everyone.*

## variable hand is undefined...

question posted about 5 hours ago by **gleit**

When I try to call playHand(hand, wordList, n) inside this function, it tells me hand is not defined. I thought the tester would define hand...

**+** Expand discussion

*This post is visible to everyone.*

## Doubts in dictionary copy

discussion posted about 6 hours ago by **PushpinderK**

I have solved the rest of the part of this problem except the case of 'r' after a hand has been already dealt.

I did a .copy() and deepcopy()...

**+** Expand discussion

## Please what's the right condition to test

discussion posted about 7 hours ago by **MorganBunmi**

My code works perfectly except for the part after the comment below; when input is 'r' and no hand has been dealt

hand = {}

```
while True:

    ----
    if input == 'n':

        ----
        -----
    elif input == 'r':

        **#THIS PART; whats the right condition to test??**
        if dealHand(HAND_SIZE) == {}:
            print('You have not played a hand yet. Please play a new hand first!')
        else:
            -----
    elif input == 'e':
        -----
    else:
        ----
        ----
```

I have tried a few conditions but to no avail

➖ Collapse discussion

## not allowing the use of existing funtion

discussion posted about 10 hours ago by **MarisD**

Was trying to use `calculateHandlen` to see if hand was ever dealt (scenario in the output saple section), however grader gave an error `"Your...

**+** Expand discussion

## How to exit the game?

discussion posted about 11 hours ago by **STamilla**

when user's input is 'e' my code exits the loop ( I checked it using print statement) but then the word list is being loaded again

```
Enter...
```

**+** Expand discussion

## I simply don't get why test 5 fails

discussion posted about 11 hours ago by **leon153**

The last test in the grader says that the output is not correct. Can you tell me what is not correct when the last lines of my output according...

**+** Expand discussion

## How calculate the length of the hand `` `n` ``?

question posted about 12 hours ago by **Fhernd**

Somebody can give a tip about how to calculate (set/obtain) `n` in `playGame(wordList)` method?

Actually, I'm trying to assign its value via:

...

**+** Expand discussion

## Constants?

question posted about 13 hours ago by **aniln**

the Grader is giving me the following error. When I run the same code in Canopy it runs perfectly, but not in grader...

**\* Error: \*** 'HAND_SIZE'...

**+** Expand discussion

## Completely stuck - just one more test to pass

question posted about 13 hours ago by **av82014**

Hi, My solution for the last problem in PS4 is graded ok except for the last test: Test 10: Invalid input test - if something other that 'u'...

**+** Expand discussion

## Some hands in the Sample Output are impossible given the dealHand(n) function supplied

discussion posted about 14 hours ago by **Greg1950**

The sample output has an instance where a new hand is **a r e t i i n** . That hand has 4 vowels in it, but the `dealHand(n)` function provided...

**+** Expand discussion

---

## End of file error

question posted about 17 hours ago by **Ddng**

When i submit my code i get the statement :

```
Traceback (most recent call last):
  File "submission.py", line 19, in <module>
  …
```

**+** Expand discussion

## How to exit the loop correctly when e is chosen

discussion posted about 17 hours ago by **d_cramer**

Well... I'm getting the exact same output as the grader is asking for... when I run it on my own computer (outside the edx client) the thing...

**+** Expand discussion

**1**    2    3    Next >

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