NPTEL » The Joy of Computing using Python   Announcements   About the Course   Ask a Question   Progress   Mentor   Review Assignment

tusharkhera346@gmail.com ⌄

Course outline

Week 6 : Assignment 1

The due date for submitting this assignment has passed.

Due on 2023-03-08, 23:59 IST.

Assignment submitted on 2023-03-05, 11:42 IST

1) Which of the following is true about recursion?   *1 point*

- ☐ Recursion always performs better than non-recursive code.
- ☑ Recursive code can be reused.
- ☑ The base case is necessary for recursion.
- ☑ Recursive code can be shorter than non-recursive code

Yes, the answer is correct.
Score: 1
Accepted Answers:
Recursive code can be reused.
The base case is necessary for recursion.
Recursive code can be shorter than non-recursive code

2) If PYTHON is encoded by TCXLSR then DIAMOND will be encoded as?   *1 point*

- ○ EJBNPOE
- ○ FKCORPF
- ○ HMERTSH
- ⦿ HMEQSRH

Yes, the answer is correct.
Score: 1
Accepted Answers:
HMEQSRH

3) Let L be a list containing different names of movies. Which statement is correct to select a random movie name from that list L?   *1 point*

- ⦿ random.choices(L)
- ○ random.select(L)
- ○ random.movie(L)
- ○ random.random(L)

Yes, the answer is correct.
Score: 1
Accepted Answers:
random.choices(L)

4) In the list L = [4,6,7,4,6,2,1], What is the index of element '7'?   *1 point*

- ○ 0
- ○ 1
- ⦿ 2
- ○ 3

Yes, the answer is correct.
Score: 1
Accepted Answers:
2

5) What will be the output of the following code?   *1 point*

```python
import string

def shift(word,value):

    letters = string.ascii_lowercase
    new = ''

    for i in range(len(word)):

        if word[i] in letters:

            index = letters.index(word[i])
            new = new + letters[(index+value)%26]

        else:

            new = new + word[i]

    return new
```

- ⦿ Shift every letter in a given word by value.
- ○ Shift every letter in a given word by 1.
- ○ Shift every letter in a given word by 26.
- ○ Returns the same word.

Yes, the answer is correct.
Score: 1
Accepted Answers:
Shift every letter in a given word by value.

6) Library used to import images? **1 point**

- ○ PIL
- ○ Imageview
- ○ IMG
- ○ image

Yes, the answer is correct.
Score: 1
Accepted Answers:
PIL

7) Values of CSV files are separated by? **1 point**

- ○ Commas
- ○ Colons
- ○ Semi-colons
- ○ Slash

Yes, the answer is correct.
Score: 1
Accepted Answers:
Commas

8) what will be the output of the following program? **1 point**

```python
def recursive(num):

    if(num==1):
        print('*')
        return

    if(num%2 == 0):
        print('*'*num)
        recursive(num-1)
        return
    else:
        recursive(num-1)
        return

recursive(10)
```

- ○ **********
  ****
  ****
  ****
  ******
  *****
  ****
  ***
  **
  *

- ○ *********
  ****
  *****
  ***
  *

- ○ Runs into infinite loop

- ◉ **********
  ****
  ******
  ****
  **
  *

Yes, the answer is correct.
Score: 1
Accepted Answers:
****
****
******
****
**
*

9) What will happen if we don't check for a base case in recursion. **1 point**

- ○ The program will run smoothly
- ○ The program will return a wrong output.
- ◉ The program will enter into an infinite loop.
- ○ The program will never run.

Yes, the answer is correct.
Score: 1
Accepted Answers:
The program will enter into an infinite loop.

10) Which of the following is true about recursion? **1 point**

- ○ Recursion increases the speed of the program.

○ Recursion decreases the speed of the program.
○ Speed of the program remains the same.
○ Recursion is easier to understand than non-recursive programs.

Yes, the answer is correct.
Score: 1
Accepted Answers:
Recursion decreases the speed of the program.

○ Recursion decreases the speed of the program.
○ Speed of the program remains the same.
○ Recursion is easier to understand than non-recursive programs.

Yes, the answer is correct.
Score: 1
Accepted Answers:
Recursion decreases the speed of the program.