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NPTEL (<https://swayam.gov.in/explorer?ncCode=NPTEL>) » The Joy of Computing using Python (course)



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Course outline

About NPTEL ()

How does an NPTEL online course work? ()

Week 0 ()

Week 1 ()

Week 2 ()

Week 3 ()

○ Lists Part 1 :
Introduction
(unit?
unit=57&lesson
=58)

○ Lists Part 2 :
Manipulation
(unit?
unit=57&lesson
=59)

○ Lists Part 3 :
Operations
(unit?)

Thank you for taking the Week 3: Assignment 3.

Week 3: Assignment 3

Your last recorded submission was on 2024-08-13, 22:18 IST Due date: 2024-08-14, 23:59 IST.

1) Which of the following is/are **true** statement(s)?

1 point

- ☒ Lists are used to store multiple values.
- ☐ One can access element in list by using non-numeric indices.
- ☒ Iterating over lists is possible in Python.
- ☐ We need to specify required size of list while creating a new list variable.

2) In the below code -

```
n= ?  
a = []  
for i in range(n):  
    l1 = []  
    p = 0  
    for j in range(i):  
        l1.append(j)  
    for k in l1:  
        p+=1  
    a.append(p)  
  
k=0  
for l in a:  
    k+=1  
print(k)
```

For what value of **n** does the program print **21** ?

Lists Part 4 :
Slicing (unit?
unit=57&lesson
=61)

Loops and
Conditionals :
Fizzbuzz 01
(unit?
unit=57&lesson
=62)

Loops and
Conditionals :
Fizzbuzz 02
(unit?
unit=57&lesson
=63)

Crowd
Computing -
Just estimate
01 (unit?
unit=57&lesson
=64)

Crowd
Computing -
Just estimate
02 (unit?
unit=57&lesson
=65)

Crowd
Computing -
Just estimate
03 (unit?
unit=57&lesson
=66)

Crowd
Computing -
Just estimate
04 (unit?
unit=57&lesson
=67)

Crowd
Computing -
Just estimate
05 (unit?
unit=57&lesson
=68)

Crowd
Computing -
Just estimate
06 (unit?
unit=57&lesson
=69)

Permutations -
Jumbled Words
01 (unit?
unit=57&lesson
=70)

7

1 point

3) From the previous question, for what values of **n** is the number **7** appended to list **a**.

1 point

- ☐ 7
☐ 6
☒ 8
☒ 9

4) What does the following code perform ?

1 point

```
def mystery(container):
    result = []
    for i in range(len(container)):
        if i % 2 == 0:
            result.append(container[i] * 2)
        else:
            result.append(container[i] + 3)
    return result
```

- ☐ It converts any input list into a new list which is filled with some alternative even and odd numbers.
- ☒ It converts any input list into a new list such that at even indices, the value is a multiple of an even number and at odd indices, the value is either odd or even number.
- ☐ It converts any input list into a new list such that at even indices, the value is multiple of 2 and at odd indices, the value is multiple of 3.
- ☐ It converts any input list into a new list, which follows no pattern.

5) From the previous question, if the option -

1 point

It converts any input list into a new list which is filled with some alternative even and odd numbers.

is incorrect, Can you make changes to code such that this option is true ?

- ☐ No, it is not possible to make such changes.
- ☐ No, the option is already correct.
- ☒ Yes, we can make changes.

6) If **file.txt** exists, Does the code successfully run ?

1 point

```
with open("file.txt", "w") as f:
    data = f.read()
    print(data)
```

- ☐ Yes
☒ No

7) Which of the following are examples of Social Computing ?

1 point

- ☒ StackOverflow
☒ Wikipedia
☒ Quora

- Permutations - Jumbled Words 02 (unit? unit=57&lesson=71)
- Permutations - Jumbled Words 03 (unit? unit=57&lesson=72)
- Theory of Evolution 01 (unit? unit=57&lesson=73)
- Theory of Evolution 02 (unit? unit=57&lesson=74)
- Theory of Evolution 03 (unit? unit=57&lesson=75)
- Theory of Evolution 04 (unit? unit=57&lesson=76)
- Quiz: Week 3: Assignment 3 (assessment? name=453)
- Week 3 Feedback Form: The Joy of Computing using Python (unit? unit=57&lesson=77)
- Week 3: Programming Assignment 1 (/noc24_cs113/progassignment?name=456)
- Week 3: Programming Assignment 2 (/noc24_cs113/progassignment?name=457)
- Week 3: Programming Assignment 3 (/noc24_cs113/

☐ None

8) What does the following code print for **n = 3**?

1 point

```
n = ?
k = 0
a = []
b = 0
while (n != 0):
    k = k + (n % 10)
    a.append(n % 10)
    n = n//10
a.sort()
for i in a:
    b = b + i
if(b == k):
    print("WE KNOW THE WISDOM OF SERIES")
else:
    print("WE ARE YET TO KNOW MANY THINGS")
```

- ☒ WE KNOW THE WISDOM OF SERIES
- ☐ WE ARE YET TO KNOW MANY THINGS

9) From the previous question, is the variable **n** or **a.sort()** responsible for printing of either of the two possible sentences ? **1 point**

- ☒ No, it is not dependent on variable n, the code will never print "WE ARE YET TO KNOW MANY THINGS".
- ☐ Yes on a.sort() only, but the code will never print "WE ARE YET TO KNOW MANY THINGS".
- ☐ Yes on both, the code may print both sentences.
- ☒ No, it is not dependent on a.sort(), the code will never print "WE ARE YET TO KNOW MANY THINGS".

10) What does the code in question 8, calculate ?

Can you say what the values of k and b are if $n = 10294343763482 \times 10^{2309}$.

If values of k and b are different, enter 0, else enter value of k

56

1 point

You may submit any number of times before the due date. The final submission will be considered for grading.

Submit Answers

proassignment
Assessment submitted.
(name=438)

X

week 4 ()

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