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Python Workshop Series

Department of Computer Science - OUSL

Activity 08

The activity given is as follows.

1. Look at the following code snippet and identify the errors:

```
numbers = [1, 2, 3]
```

```
print(numbers[3])
```

- I. What type of exception will this raise?
 - II. How can it be handled using Try-Except. Give codebase?
-

```
numbers = [1, 2, 3]
```

This code line assigns a list which consists of 1, 2, 3 to the variable *numbers*.

The indexes of 1 , 2 , 3 are as follows

1 → index 0

2 → index 1

3 → index 2

To call each element, the code goes

numbers[0] gives 1

numbers[1] gives 2

numbers[2] gives 3

```
IDLE Shell 3.13.1
File Edit Shell Debug Options Window Help
Python 3.13.1 (tags/v3.13.1:0671451, Dec 3 2024, 19:06:28) [MSC v.1942 64 bi
t (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>> numbers = [1,2,3]
>>> numbers[0]
1
>>> numbers[1]
2
>>> numbers[2]
3
>>> print(numbers[0])
1
>>> print(numbers[1])
2
>>> print(numbers[2])
3
>>>
```

But when `numbers[3]` is called python returns an *Index Error* because the calling is out of range.

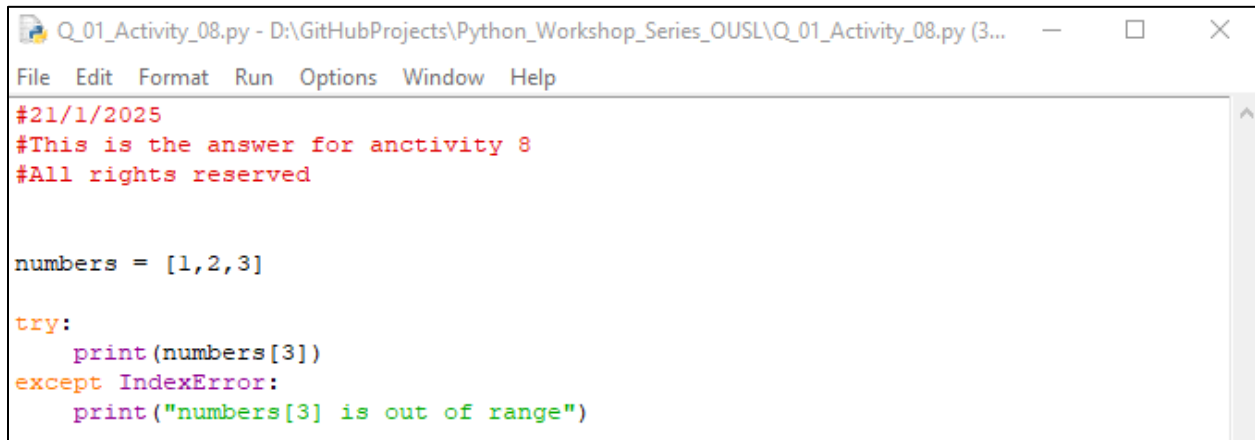
Error is ***IndexError: list index out of range***

```
IDLE Shell 3.13.1
File Edit Shell Debug Options Window Help
Python 3.13.1 (tags/v3.13.1:0671451, Dec 3 2024, 19:06:28) [MSC v.1942 64 bi
t (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>> numbers = [1,2,3]
>>> numbers[0]
1
>>> numbers[1]
2
>>> numbers[2]
3
>>> print(numbers[0])
1
>>> print(numbers[1])
2
>>> print(numbers[2])
3
>>> print(numbers[3])
Traceback (most recent call last):
  File "<pyshell#7>", line 1, in <module>
    print(numbers[3])
IndexError: list index out of range
>>>
```

Above error can be fixed using try-exception method in python

```
numbers = [1,2,3]

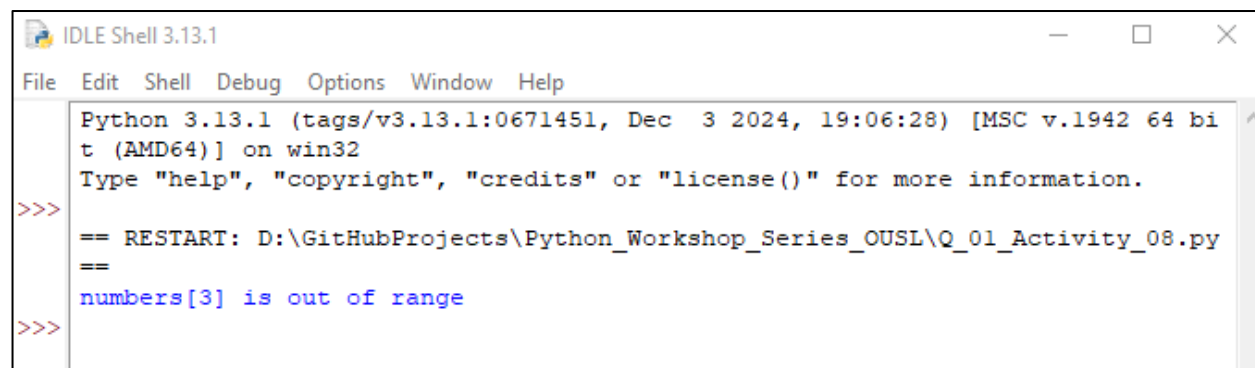
try:
    print(numbers[3])
except IndexError:
    print("numbers[3] is out of range")
```

A screenshot of a Python script file named 'Q_01_Activity_08.py' in an IDE. The window title bar shows the file path: 'D:\GitHubProjects\Python_Workshop_Series_OUSL\Q_01_Activity_08.py (3...'. The menu bar includes 'File', 'Edit', 'Format', 'Run', 'Options', 'Window', and 'Help'. The script content is as follows:

```
#21/1/2025
#This is the answer for anctivity 8
#All rights reserved

numbers = [1,2,3]

try:
    print(numbers[3])
except IndexError:
    print("numbers[3] is out of range")
```

A screenshot of the IDLE Shell window for Python 3.13.1. The window title bar shows 'IDLE Shell 3.13.1'. The menu bar includes 'File', 'Edit', 'Shell', 'Debug', 'Options', 'Window', and 'Help'. The shell output shows the following:

```
Python 3.13.1 (tags/v3.13.1:0671451, Dec 3 2024, 19:06:28) [MSC v.1942 64 bi
t (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
== RESTART: D:\GitHubProjects\Python_Workshop_Series_OUSL\Q_01_Activity_08.py
==
numbers[3] is out of range
>>>
```

Dear sir/madam, please visit repositories for more information:

https://github.com/loachana/Python_Workshop_Series_OUSL.git