



Curtin University

# Error Handling

ISYS5002, School of Marketing and Management

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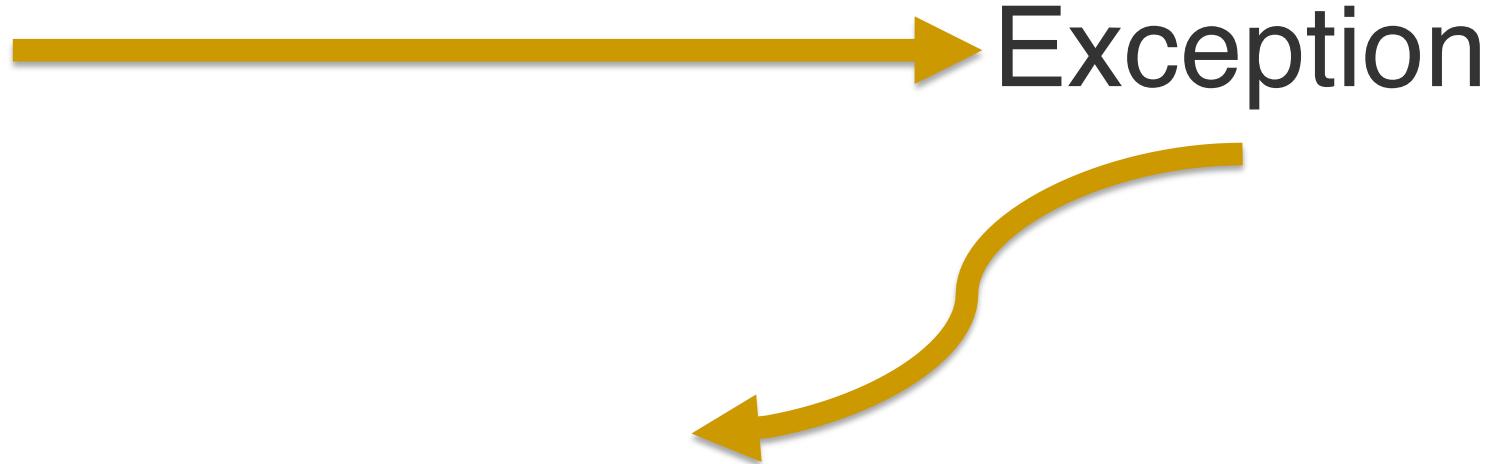
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**Exception Object:**  
- Description  
- Traceback



```
for count in [5,4,3,2,1]
    print(count)
```

```
File "<ipython-input-25-d442a8547899>", line 1
    for count in [5,4,3,2,1]
                           ^

```

**SyntaxError: invalid syntax**



```
for count in [5,4,3,2,1]
    print(count)
```

```
File "<ipython-input-25-d442a8547899>", line 1
    for count in [5,4,3,2,1]
```

SyntaxError: invalid syntax

^



Traceback



```
for count in [5,4,3,2,1]
    print(count)
```

File "[<ipython-input-25-d442a8547899>](#)", line 1
for count in [5,4,3,2,1]

SyntaxError: invalid syntax

Location of error

^

Traceback



```
for count in [5,4,3,2,1]
    print(count)
```

File "[<ipython-input-25-d442a8547899>](#)", line 1
for count in [5,4,3,2,1]

SyntaxError: invalid syntax

↑  
*Description*

^  
*Location of error*  
Traceback



```
for count in [5,4,3,2,1]
    print(count)
```

File "[<ipython-input-25-d442a8547899>](#)", line 1

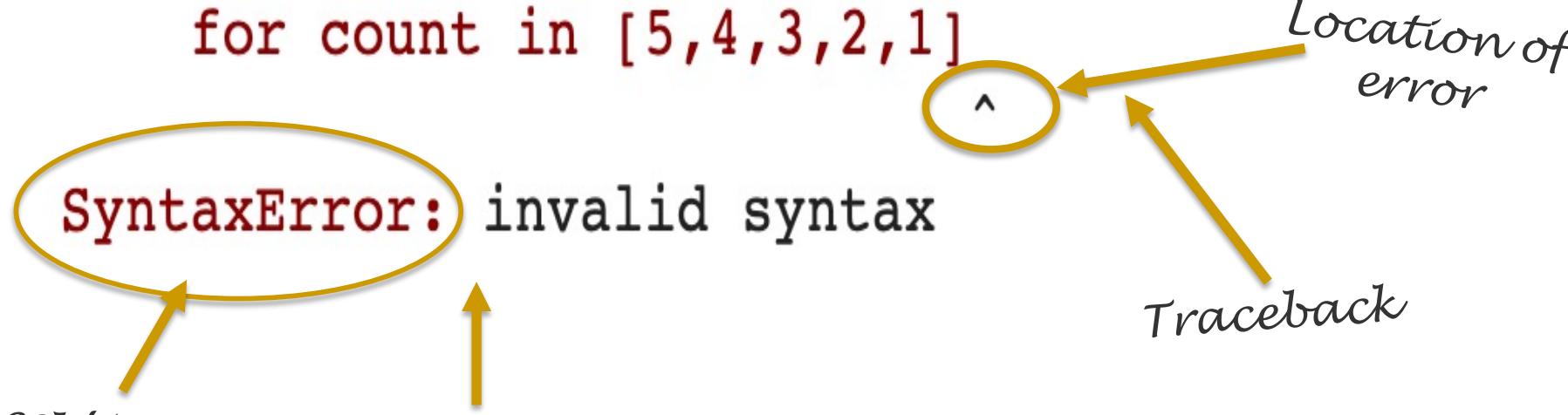
```
for count in [5,4,3,2,1]
```

**SyntaxError: invalid syntax**

*Exception Type*      *Description*

*Location of error*

*Traceback*





1/0



ZeroDivisionError

Traceback (most recent call last)

<ipython-input-26-9e1622b385b6> in <module>()

----> 1 1/0

ZeroDivisionError: division by zero



1/0



ZeroDivisionError

Traceback (most recent call last)

[<ipython-input-26-9e1622b385b6>](#) in <module>()

----> 1 1/0

ZeroDivisionError: division by zero

*Exception Type*



```
with open('readme.txt') as f:  
    lines = f.readlines()
```



```
-----  
 FileNotFoundError                                     Traceback (most recent call last)  
<ipython-input-27-ec76974b55a1> in <module>()  
----> 1 with open('readme.txt') as f:  
      2     lines = f.readlines()
```

**FileNotFoundException:** [Errno 2] No such file or directory: 'readme.txt'



```
with open('readme.txt') as f:  
    lines = f.readlines()
```



```
-----  
FileNotFoundError                                     Traceback (most recent call last)  
<ipython-input-27-ec76974b55a1> in <module>()  
----> 1 with open('readme.txt') as f:  
      2     lines = f.readlines()  
  
FileNotFoundError: [Errno 2] No such file or directory: 'readme.txt'
```

*Exception Type*



```
age = int(input("How old are you?"))
```

↳ How old are you?ten

---

```
ValueError                                     Traceback (most recent call last)
<ipython-input-24-f7a714c57d43> in <module>()
----> 1 age = int(input("How old are you?"))
```

**ValueError:** invalid literal for int() with base 10: 'ten'

SEARCH STACK OVERFLOW



```
age = int(input("How old are you?"))
```

↳ How old are you?ten

```
ValueError
```

```
Traceback (most recent call last)
```

```
<ipython-input-24-f7a714c57d43> in <module>()
```

```
----> 1 age = int(input("How old are you?"))
```

ValueError: invalid literal for int() with base 10: 'ten'

SEARCH STACK OVERFLOW

*Exception Type*



```
try:  
    with open('readme.txt') as f:  
        lines = f.readlines()  
except FileNotFoundError:  
    lines = "Umm... can't find the file"  
  
print(lines)
```

↳ Umm... can't find the file

Create a new  
block to 'try' the  
problem code



try:

```
    with open('readme.txt') as f:  
        lines = f.readlines()  
    except FileNotFoundError:  
        lines = "Umm... can't find the file"  
  
    print(lines)
```

⌚ Umm... can't find the file

Block to run  
if something  
goes wrong

Create a new  
block to 'try' the  
problem code



try:

```
with open('readme.txt') as f:
```

```
    lines = f.readlines()
```

```
except FileNotFoundError:
```

```
    lines = "Umm... can't find the file"
```

```
print(lines)
```

↳ Umm... can't find the file

Block to run  
if something  
goes wrong

Create a new  
block to 'try' the  
problem code



try:

```
with open('readme.txt') as f:
```

```
    lines = f.readlines()
```

```
except FileNotFoundError:
```

```
    lines = "Umm... can't find the file"
```

```
print(lines)
```

The 'something'

Umm... can't find the file

# Error Handling

- Exceptions
  - SyntaxError (fix, don't use try/exception)
  - ZeroDivisionError
  - FileNotFoundException
  - ValueError
  - Many others
- try/except block (simple)
- try/except/else/finally (advanced)