

Error Types

- Syntax Error
- Name Error
- Type Error
- Index Error
- Key Error
- ZeroDivisionError
- Indentation Error
- Value Error
- Import Error
- FileNotFoundError
-

For further Exceptions (Errors): <https://docs.python.org/3/library/exceptions.html>

Syntax Error:

invalid syntax in code

```
In [ ]: print("Hello, Mohamed)
```

```
Cell In [1], line 1
    print("Hello, Mohamed)
          ^
```

SyntaxError: unterminated string literal (detected at line 1)

Name Error:

when variables is not defined

```
In [ ]: print(x)
```

```
-----
NameError                                Traceback (most recent call last)
c:\Users\M\Desktop\WB_Python1\Python1\Python1\10_ErrorTypes\01_ErrorTypes.ipynb
Cell 5 in 1
----> <a href='vscode-notebook-cell:/c%3A/Users/M/Desktop/WB_Python1/Python1/Pyt
hon1/10_ErrorTypes/01_ErrorTypes.ipynb#W4sZmlsZQ%3D%3D?line=0'>1</a> print(x)
```

NameError: name 'x' is not defined

Type Error

incompatible data type, operations between incompatible data types

```
In [ ]: print("Banana" + 3)
```

```
-----
TypeError                                Traceback (most recent call last)
c:\Users\M\Desktop\WB_Python1\Python1\Python1\10_ErrorTypes\01_ErrorTypes.ipynb
Cell 7 in 1
----> <a href='vscode-notebook-cell:/c%3A/Users/M/Desktop/WB_Python1/Python1/Pyt
hon1/10_ErrorTypes/01_ErrorTypes.ipynb#W6sZm1sZQ%3D%3D?line=0'>1</a> print("Bana
na" + 3)
```

TypeError: can only concatenate str (not "int") to str

Index Error

accessing index which is not existing

```
In [ ]: my_list = [1, 2, 3]
        print(my_list[10])
```

```
-----
IndexError                                Traceback (most recent call last)
c:\Users\M\Desktop\WB_Python1\Python1\Python1\10_ErrorTypes\01_ErrorTypes.ipynb
Cell 9 in 2
      <a href='vscode-notebook-cell:/c%3A/Users/M/Desktop/WB_Python1/Python1/Pyt
hon1/10_ErrorTypes/01_ErrorTypes.ipynb#X11sZm1sZQ%3D%3D?line=0'>1</a> my_list =
[1, 2, 3]
----> <a href='vscode-notebook-cell:/c%3A/Users/M/Desktop/WB_Python1/Python1/Pyt
hon1/10_ErrorTypes/01_ErrorTypes.ipynb#X11sZm1sZQ%3D%3D?line=1'>2</a> print(my_l
ist[10])
```

IndexError: list index out of range

KeyError

example: accessing key of dictionary which is not available

```
In [ ]: my_dict = {"a": 1, "b": 2}
        print(my_dict["car"])
```

```
-----
KeyError                                Traceback (most recent call last)
c:\Users\M\Desktop\WB_Python1\Python1\Python1\10_ErrorTypes\01_ErrorTypes.ipynb
Cell 11 in 2
      <a href='vscode-notebook-cell:/c%3A/Users/M/Desktop/WB_Python1/Python1/Pyt
hon1/10_ErrorTypes/01_ErrorTypes.ipynb#X13sZm1sZQ%3D%3D?line=0'>1</a> my_dict =
{"a": 1, "b": 2}
----> <a href='vscode-notebook-cell:/c%3A/Users/M/Desktop/WB_Python1/Python1/Pyt
hon1/10_ErrorTypes/01_ErrorTypes.ipynb#X13sZm1sZQ%3D%3D?line=1'>2</a> print(my_d
ict["car"])
```

KeyError: 'car'

ZeroDivisionError

divide by zero

```
In [ ]: x = 5 / 0
```

```
-----  
ZeroDivisionError                                Traceback (most recent call last)  
c:\Users\M\Desktop\WB_Python1\Python1\Python1\10_ErrorTypes\01_ErrorTypes.ipynb  
Cell 13 in 1  
----> <a href='vscode-notebook-cell:/c%3A/Users/M/Desktop/WB_Python1/Python1/Pyt  
hon1/10_ErrorTypes/01_ErrorTypes.ipynb#X15sZmlsZQ%3D%3D?line=0'>1</a> x = 5 / 0  
  
ZeroDivisionError: division by zero
```

Indentation Error

white spaces missing, incorrect

```
In [ ]: if x == 5:  
print("x is 5")
```

```
Cell In [7], line 2  
    print("x is 5")  
    ^  
IndentationError: expected an indented block after 'if' statement on line 1
```

Value Error

when the function receives a corret type but the content is wrong

```
In [ ]: int("Banana") # Error  
int("3") # correct
```

Import Error

```
In [ ]: import bujar
```

FileNotFoundError

```
In [ ]: with open("nonexistingfile.txt", "r") as file:  
    content = file.read()
```

```
-----  
FileNotFoundError                                Traceback (most recent call last)  
c:\Users\M\Desktop\WB_Python1\Python1\Python1\10_ErrorTypes\01_ErrorTypes.ipynb  
Cell 21 in 1  
----> <a href='vscode-notebook-cell:/c%3A/Users/M/Desktop/WB_Python1/Python1/Pyt  
hon1/10_ErrorTypes/01_ErrorTypes.ipynb#X26sZmlsZQ%3D%3D?line=0'>1</a> with open  
("nonexistingfile.txt", "r") as file:  
    <a href='vscode-notebook-cell:/c%3A/Users/M/Desktop/WB_Python1/Python1/Pyt  
hon1/10_ErrorTypes/01_ErrorTypes.ipynb#X26sZmlsZQ%3D%3D?line=1'>2</a>         conten  
t = file.read()  
  
FileNotFoundError: [Errno 2] No such file or directory: 'nonexistingfile.txt'
```