

User Defined Exceptions in Python

Python throws errors and exceptions, when there is a code gone wrong, which may cause program to stop abruptly.

Python also provides exception handling method with the help of try-except. Some of the standard exceptions which are most frequent include IndexError, ImportError, IOError, ZeroDivisionError, TypeError and FileNotFoundError.

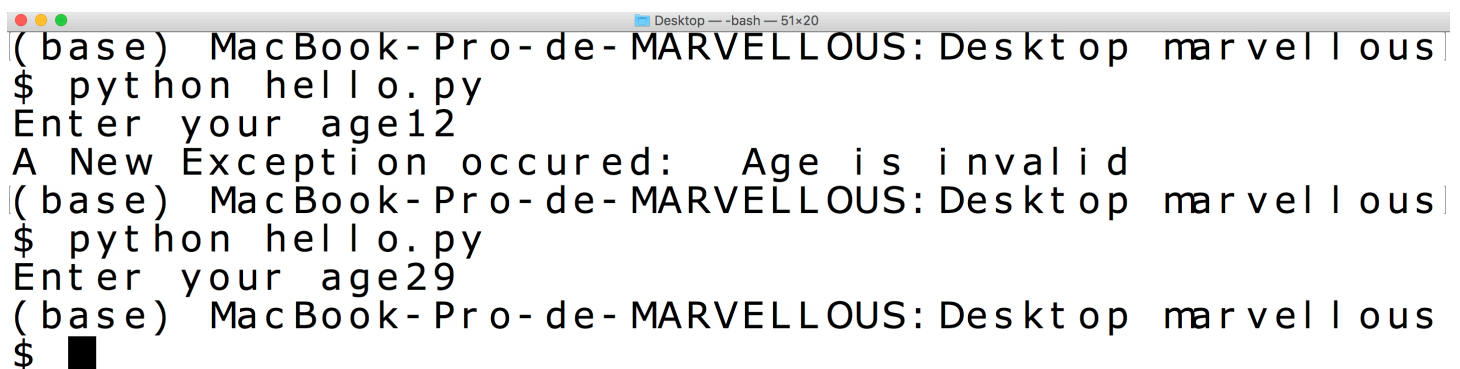
A user can create his own error using exception class.

Programmers may name their own exceptions by creating a new exception class. Exceptions need to be derived from the Exception class, either directly or indirectly.

Consider below example which demonstrates user define exceptions in Python

```
1 class AgeInvalid(Exception):
2     def __init__(self, value):
3         self.value = value
4
5 def main():
6     try:
7         age = int(input("Enter your age"));
8         if (age < 18):
9             raise (AgeInvalid("Age is invalid"));
10
11    except AgeInvalid as error:
12        print('A New Exception occurred: ',error.value)
13
14 if __name__ == "__main__":
15     main();
16
```

Output of above application



```
(base) MacBook-Pro-de-MARVELLOUS: Desktop marvellous
$ python hello.py
Enter your age12
A New Exception occurred: Age is invalid
(base) MacBook-Pro-de-MARVELLOUS: Desktop marvellous
$ python hello.py
Enter your age29
(base) MacBook-Pro-de-MARVELLOUS: Desktop marvellous
$
```