**What are the Errors and Exceptions in Python?**

Python doesn’t like errors and exceptions and displays its dissatisfaction by terminating the program abruptly.

There are basically two types of errors in the Python language-



* Syntax Error.
* Errors occuring at run-time or *Exceptions.*

**Syntax Errors**

Syntax Errors, also known as parsing errors, occur when the parser identifies an incorrect statement. In simple words, syntax error occurs when the proper structure or syntax of the programming language is not followed.

An example of a syntax error:

>>> print( 1 / 0 ))

File "", line 1

print( 1 / 0 ))

^

SyntaxError: invalid syntax

**Exceptions**

Exceptions occur during run-time. Python raises an exception when your code has a correct syntax but it encounters a run-time issue which it is not able to handle.

There are a number of defined built-in exceptions in Python which are used in specific situations. Some of the built-in exceptions are:

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| Exception | Cause Of Error |
| ArithmeticError | Raised when numerical computation fails. |
| FloatingPointError | Raised when floating point calculation fails. |
| AssertionError | Raised in case of failure of the Assert statement. |
| ZeroDivisionError | Raised when division or modulo by zero takes place for all numerical values. |
| OverflowError | Raised when result of an arithmetic operation is very large to be represented. |
| IndexError | Raised when an index is not found in a sequence. |
| ImportError | Raised when the imported module is not found. |
| IndentationError | Raised when indentation is not specified properly. |
| KeyboardInterrupt | Raised when the user hits interrupt key. |
| RuntimeError | Raised when a generated error does not fall into any category. |
| SyntaxError | Raised when there is an error in Python syntax. |
| IOError | Raised when Python cannot access a file correctly on disk. |
| KeyError | Raised when a key is not found in a dictionary. |
| ValueError | Raised when an argument to a function is the right type but not in the right domain. |
| NameError | Raised when an identifier is not found in the local or global namespace. |
| TypeError | Raised when an argument to a function is not in the right type. |

There are another type of built-in exceptions called **warnings**. They are usually issued in situations where the user is alerted of some conditions. The condition does not raise an exception; rather it  terminates the program.