Errors & Exception Handling

Eg: print ('Hello)
File
SyntaxError: EOL while scanning string literal

This type of error is called Exception. Even if a st. or expression is syntactically correct, it may cause an error when attempt is made to execute. Errors detected during detection are called exceptions & are not unconditionally fatal.

try & except

The code which can cause an exception to occur is put in the try-block. Handling of exception is put in except block.

```
try:
    You do ur operations here

except ExceptionI:
    If there is Excep.I, then exec. this block
```

except ExceptionII:
    If there is Except:II, then execute this block
    ...

else:
    If no exception then execute this block

finally:

This block will always run regardless if there was an exception in try code block.

try:
    Code block here
    ...
    Due to any exception, this code may be skipped

finally:
    This code block would always be executed

E.g. try:
    f=open('testfile','w')
    f.write('Test write this')

```
except IOError:
    # Only check for an IOError
    print("Error: Could not find file")

else:
    print("Content written successfully")
    f.close()
```

o/p: Content written successfully

E.g.

```
def askint():
    while True:
        try:
            val = int(input("Pls enter integer"))
        except:
            print("Looks like you did not
                    enter an integer!")
            continue
        else:
            print("Yep that's an integer!")
            break
        finally:
            print("Finally, I executed!")
        print(val)
```

```
In: askint()
Pls. enter an integer: five
Looks like you did not enter integer!
Finally, I executed!
Pls. enter an integer: 3
```

Yep that's an integer!
Finally, I executed!

Unit Testing:

Recall that with some IPython magic we can write contents of a cell to a file using %%writefile.
Something we haven't seen yet, you can run terminal commands from a Jupyter cell using !.

Testing tools:

- → pylint
- → pyflakes
- → pep8
- → unittest
- → doctest.