

TDD FileLoader v1.0

In this solution, the production class actually loads a file from the disk.

Unit Test

```
import unittest
from app.file_loader import FileLoader

class LiveFileLoaderTest(unittest.TestCase):
    """
```

The initial design is described in this test.

The weakness should be obvious — the file to be loaded and its location. I use a shared network drive to run this code from different machines, normally developing from a PC. When I ran the code on the laptop from a cafe it immediately failed because the C: on the laptop was completely different to the PC, so the original file C:/tmp/KeyboardHandler.txt did not exist.

THIS IS A GREAT EXAMPLE OF WHY THE UNIT TEST AND CUT SHOULD NOT BE STRONGLY LINKED TO ANY IO — NETWORK, DB, AND FILE SYSTEM.

"""

```
def test_load_all_of_file_using_inbuilt_files_type(self):
```

```
    # Arrange
    file_to_load = "sample.txt"
    expected_bytes_read = 12
    cut = FileLoader(file_to_load)
```

```
    # Act
```

```
    bytes_read = cut.load_file(file_to_load)
```

```
    # Assert
```

```
    self.assertEqual(expected_bytes_read, bytes_read)
```

```
if __name__ == "__main__":
    unittest.main()
```

The CUT FileLoader

```
class FileLoader:  
    def __init__(self, file_to_load):  
        self.file_to_load = file_to_load  
        self.lines = []  
  
    def load_file(self, fname):  
        try:  
            with open(fname, encoding='utf-8') as f:  
                self.lines = f.readlines()  
        except IOError:  
            self.lines = []  
  
        return self._calculate_file_size()  
  
    def _calculate_file_size(self):  
        total_length = sum(len(line) for line in self.lines)  
        return total_length
```