

If I am hired then I will prefer some modern way to Test this like I listed below.

- * Black-Box: Test my website without knowing internals code.

- * Gray-Box: Use some understanding of how it's implemented using POSIX calls to craft more targeted tests(it is a combination of white and black box).

There are some Key Areas to Tests like:

- * Basic functionality:

- ** Can it read/write files correctly?

- ** What should fopen, fread, fwrite, fclose, feof, and ferror do?

- * Error handling: Does it behave correctly when files don't exist or when operations fail?

- * Edge cases: Empty files, large files, partial reads/writes, reaching EOF, reading after EOF, etc.

- * Concurrency: What happens when multiple file handles are opened?

- * Correct wrapping: Are file descriptors properly closed on fclose()?

- * Design Integration Tests (Black-box):

- ** Combine multiple functions in workflows (e.g., open → write → close → read).

- ** Validate correctness of full usage scenarios.

Examples of Individual Tests:

- * Basic Write and Read Test:

```
def test_basic_write_read():
```

```
    lib = LibIO()
```

```
    lib.fopen("file.txt", 'w')
```

```
    lib.fwrite(b"test123")
```

```
    lib.fclose()
```

```
    lib.fopen("file.txt", 'r')
```

```
    assert lib.fread(10) == b"test123"
```

```
    assert not lib.ferror()
```

```
    lib.fclose()
```

- * Open Non-existent File for Reading:

```
def test_open_nonexistent_file():
```

```
    lib = LibIO()
```

```
    with pytest.raises(OSError):
```

```
        lib.fopen("does_not_exist.txt", 'r')
```

```
    assert lib.ferror()
```

- * EOF Detection:

```
def test_feof_flag():
```

```
    lib = LibIO()
```

```
    with open("file.txt", 'wb') as f:
```

```
        f.write(b"abc")
```

```
lib.fopen("file.txt", 'r')
assert lib.fread(3) == b"abc"
assert not lib.feof()
assert lib.fread(1) == b""
assert lib.feof()
```

and I already mention my code Example Code for Tests in the file by the name of test

For Run my code type in terminal
python handleLongestContigousevenNumber.py