

CS150 - More on unit tests

Note Title

3/1/2012

Announcements

- MT average - 58.5
- HW due next Thursday

(Overview of midterm)

Theory of Unit testing

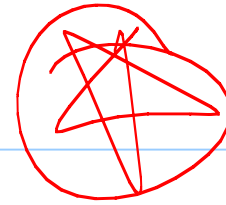
Unit testing is part of top-down design.

Idea is to carefully specify requirements & behaviour expected.

Then run tests often - at completion or change of any included module, at least.

One way - run a script

Our way of unit testing:



Example: file xxx.py

```
class XXX:
```

```
    # code for class
```

```
if __name__ == "__main__":  
    # test code
```

This test only runs when we type
python xxx.py
(not when module is imported.)

How to use unittest (PyUnit)

Import it: `import unittest`

Unit tests themselves consist of functions the programmer writes to test the code.

Eg:

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

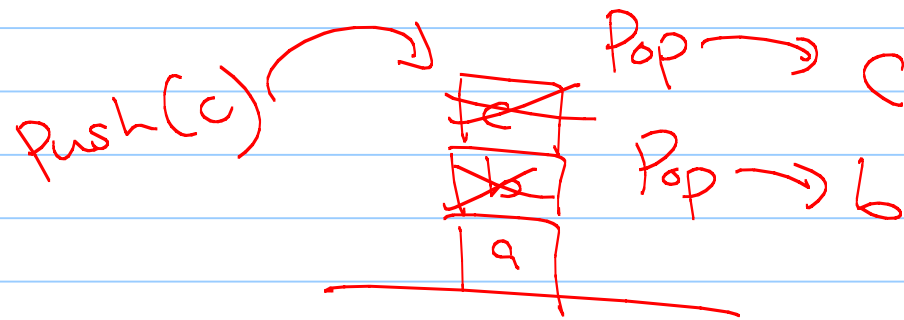
Example: a stack

A simple data structure w/ 3 functions.

- Push(data)

- Pop()

- Peek()



(If empty, None is returned)

Let's code this, & then test it.

Running PyUnit

Coded some example unit tests for
our stack.