

CS150 - Modules

Note Title

3/9/2012

Announcements

- Please turn in HWS now if you had internet problems last night
- HW 6 + 7 are posted

Opening files: a note

The syntax I gave you:

```
x = file('name.txt')
```

This has been retired in python 3!

Instead: `x = open('name.txt')`

String formatting: a note

New syntax: `{s}% mystring`

`{.3f} is a number % sqrt(2)`

Our way: `{%d} is an int % x`

`{d}` is not in Python 3

Modules

Modules are simply files containing python code

Name is same as file name
(but w/o .py or .pyc)

We have imported using from command:

```
from cs1graphics import *
```

```
from math import sqrt
```

```
from hw5 import Account
```

Importing

- Allows us to use this code as though it were our own.

We say all the things imported are in our current environment

Only problem:

If module uses same variables, there is a conflict!

This is called name pollution.

What to do about this:

① Only import what you need:

from math import sqrt

or

from math import sqrt, pi

② Use: import math
then: (* it keeps its namespace)

import math.pi
x = hw5.Account()

Unit testing recap

```
#define MyClass
```

```
if __name__ == '__main__':
```

```
    x = MyClass()
```

```
    x.function1()
```

```
    if x.function2(6) == 'expected result':  
        print 'It worked'
```

Other Useful Modules

Over 250 useful Python modules
that come by default.

Useful:

- math

- sys : sys, stdin
 sys, argv

Python program.py
other

- StringIO