COMP1531

2.4 - Python - Importing & Paths

importing and modules

- In python you're able to write code in one file, and import it into another file (just like C).

importing and modules

calmath.py

```python
def daysIntoYear(month, day):
    total = day
    if month > 0:
        total += 31
    if month > 1:
        total += 28
    if month > 2:
        total += 31
    if month > 3:
        total += 30
    if month > 4:
        total += 31
    if month > 5:
        total += 30
    if month > 6:
        total += 31
    if month > 7:
        total += 30
    if month > 8:
        total += 31
    if month > 9:
        total += 30
    if month > 10:
        total += 31
    return total

def quickTest():
    print(f"month 0, day 0 = {daysIntoYear(0,0)}")
    print(f"month 11, day 31 = {daysIntoYear(11,31)}")

#if __name__ == '__main__':
#    quickTest()

quickTest()
```

importto.py

```python
import sys

import calmath

if len(sys.argv) != 3:
    print("Usage: importto.py month dayofmonth")
else:
    print(calmath.daysIntoYear(int(sys.argv[1]), \
                               int(sys.argv[2])))
```

What is this for??
(Live Demo)

Ways to import

use.py

```
1  import * from lib
2
3  # To do
4
5  from lib import one, two, three
6
7  # To do
8
9  import lib
10
11 # To do
```

lib.py

```
1 def one():
2     return 1
3
4 def two():
5     return 2
6
7 def three():
8     return 3
```

Which ways do we prefer and why?

pytests and paths

- Pathing with pytest is a big complicated. Because pytest is a program, it actually runs many python files in a container, which means that many different python files are run from different folders.
- This makes our assumptions around paths difficult...

"testpath" example

Live demo

Let's look at week 2 lecture code to learn more about importing, pytests, and paths

Python Path

This is something needed to make
pytest work

If your project is in ~/cs1531/project

```
1 export PYTHONPATH="$PYTHONPATH:~/cs1531/project"
```

You can add this line to your
~/.bashrc if you don't want to type it
in every time you open a terminal