Python Crash P3

Map

- Map will apply function every element of the sequence

```
times2(5)
```

```
10
```

```
# map()
```

```
seq = [1,2,3,4,5]
```

```
list(map(times2,seq))
```

```
[2, 4, 6, 8, 10]
```

Lamda Expression

- Normal Function

```
def times2(var):return var*2
```

- Lamda Function

```
t = lambda var:var*2
```

- Another Example

```
seq = [1,2,3,4,5]
```

```
list(map(lambda num: num*3,seq))
```

```
[3, 6, 9, 12, 15]
```

Filter function

- Very Similar to Map. Instead of map, filter outs
- Filter Even Numbers from Sequence

```
In [123]: list(map(lambda num: num*3,seq))
Out[123]: [3, 6, 9, 12, 15]

In [125]: list(filter(lambda num: num%2 == 0,seq))
Out[125]: [2, 4]
```

Methods

```
s = 'hello my name is Sam'
```

```
s.lower()
```

```
'hello my name is sam'
```

```
s.upper()
```

```
'HELLO MY NAME IS SAM'
```

```
s.split()
```

```
['hello', 'my', 'name', 'is', 'Sam']
```

- String Methods
  - upper()
  - lower()
  - split()
  - split('#')
- List/Dictionary Methods
  - pop()
  - pop(0)
  - d.keys()
  - d.values()
  - append()
- in

```
'x' in [1,2,3]
```

```
False
```

```
'x' in ['x','y','z']
```

```
True
```

Tuple Unpacking

- Grab an element from List of tuple in normal way

```
x = [(1,2),(3,4),(5,6)]
```

```
x[0][1]
```

```
2
```

- Same in Tuple unpacking

```
for (a,b) in x:
    print(b)
```

```
2
4
6
```