

# Hi Class

- Please download lab2.ppt, hw1\_k.py, lab2.py from Canvas - Module

# **BST 281**

Lab2

02/06/2017

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# Announcement:

- When you want to ask us some personal questions, please send to both me and Eric!

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- Post Homework related question in **DISCUSSION BOARD** as early as possible! Don't wait till the last day!
- You can submit hw multiple times through Canvas ( until the deadline)!

# From hw1:

- A way to check your answer:  
`python -m doctest k01-introduction.py`
- Homework name: `problems01.py`
- Homework formatting:  
Open `hw1_k.py`

# Range

```
>>> for i in range(5):  
...     print(i)  
...  
0  
1  
2  
3  
4
```

```
range(5, 10)  
5 through 9
```

```
range(0, 10, 3)  
0, 3, 6, 9
```

```
range(-10, -100, -30)  
-10, -40, -70
```

# List

Look at [range example](#) in lab2.py

```
>>> range(5)
range(0, 5)
>>> list(range(5))
[0, 1, 2, 3, 4]
```

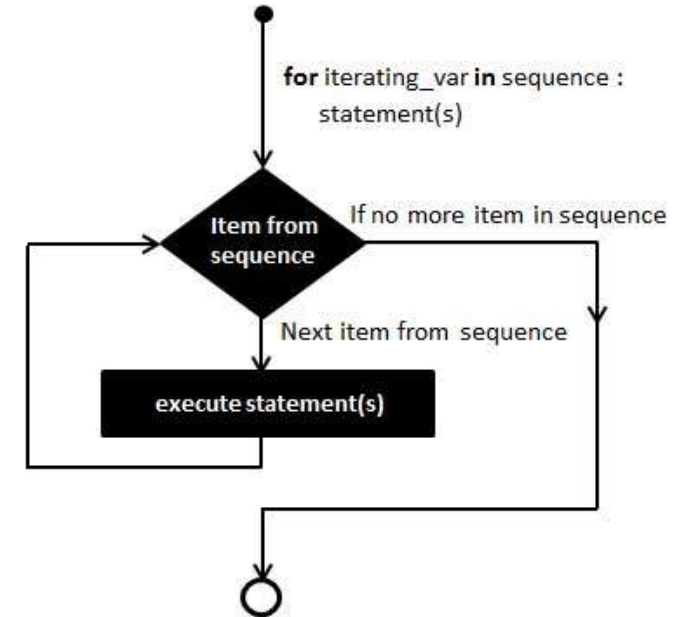
```
>>> for var in list(range(5)):
    print (var)
```

## Output

This will produce the following output.

```
0
1
2
3
4
```

Flow Diagram



# If

Look at [“if” example](#) in lab2.py

```
>>> x = int(input("Please enter an integer: "))
Please enter an integer: 42
>>> if x < 0:
...     x = 0
...     print('Negative changed to zero')
... elif x == 0:
...     print('Zero')
... elif x == 1:
...     print('Single')
... else:
...     print('More')
...
More
```

# For loop

Look at [“for loop” example](#) in lab2.py

```
>>> a = ['Mary', 'had', 'a', 'little', 'lamb']
>>> for i in range(len(a)):
...     print(i, a[i])
...
0 Mary
1 had
2 a
3 little
4 lamb
```

```
>>> # Measure some strings:
... words = ['cat', 'window', 'defenestrate']
>>> for w in words:
...     print(w, len(w))
...
cat 3
window 6
defenestrate 12
```



# Function

```
a = 23
b = -23

if a < 0:
    a = -a
if b < 0:
    b = -b
if a == b:
    print("The absolute values of", a, "and", b, "are equal.")
else:
    print("The absolute values of", a, "and", b, "are different.")
```

```
a = 23
b = -23

def absolute_value(n):
    if n < 0:
        n = -n
    return n

if absolute_value(a) == absolute_value(b):
    print("The absolute values of", a, "and", b, "are equal.")
else:
    print("The absolute values of", a, "and", b, "are different.")
```

# Function

Look at [“function1-3” example](#) in lab2.py

```
def hello():  
    print("Hello")  
  
def area(width, height):  
    return width * height  
  
def print_welcome(name):  
    print("Welcome", name)  
  
hello()  
hello()  
  
print_welcome("Fred")  
w = 4  
h = 5  
print("width =", w, " height =", h, " area =", area(w, h))
```

Check out homework keys!