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# Python: Control Structures

# Today's agenda

- Built-in Functions
- Keywords
- Control Structures
- Lab

# the range function

```
# range(x) := [0,1,2,...,x-1]
for i in range(5):
    print i
```

---

0

1

2

3

4

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# the continue statement

```
# continue := continue with the next iteration
for i in range(5):
    if i == 3:
        continue
    print i
```

---

0  
1  
2  
4  
5

# the `break` statement

```
# break := break out of the loop
for i in range(5):
    if i > 2:
        break
    print i
```

---

0

1

2

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# if statement

```
temp = 5
```

```
if temp < 10:  
    print "It is cold!"
```

---

```
It is cold!
```



# if statement

```
temp = 20
```

```
if temp < 10:  
    print "It is cold!"
```

---

# if...else statement

```
temp = 20
```

```
if temp < 10:
```

```
    print "It is cold!"
```

```
else:
```

```
    print "It feels good!"
```

---

```
It feels good!
```

# if...else statement

```
temp = 40
```

```
if temp < 10:
```

```
    print "It is cold!"
```

```
else:
```

```
    print "It feels good!"
```

---

```
It feels good!
```

# if...elif...else statement

```
temp = 40
```

```
if temp < 10:  
    print "It is cold!"  
elif temp > 30:  
    print "It is hot!"  
else:  
    print "It feels good!"
```

---

It is hot!

for loops

# for loops

```
for i in [0,1,2,3,4]:  
    print i
```

---

0

1

2

3

4

`while loops`

# while loops

```
i = 0
while (i < 5):
    i = i + 1
    print i
```

---

1  
2  
3  
4  
5



# while loops with break and continue

```
i = 0
while (i < 5):
    i = i + 1
    if i == 3:
        continue
    if i > 4:
        break
    print i
```

---

1  
2  
4

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