Loops

Python for Ecologists

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Notes

Conditionals

- whitespace is very important, determines the close

```
if grade >= 90:
  print "A"
elif grade >= 80:
  print "B"
elif grade >= 70:
  print "C"
elif grade >= 60:
  print "D"
else:
  print "F"
```

Notes

Booleans

```
cloudy = True
rainy = False

# Testing booleans
print(bool("alpha"<"beta"))
True
```

- Strings are compared alphabetically when sorted

Notes

Comparison operators

- Python comparison operators

```
# x == y       x equals y
# x < y        x is less than y
# x > y        x is greater than y
# x >= y       x is greater than or equal to y
# x <= y       x is less than or equal to y
# x != y       x is not equal to y
# x is y       x and y are the same object
# x is not y   x and y are different objects
# x in y       x is a member of the container y
# x not in y   x is not a member of the container
```

Notes

Loop iteration

```
# through a list of numbers
for value in [1,2,3,4,5,6,7]:
  print value
# using range
for value in range(1,8):
 print value
```

Notes

enumeration

```
# through a list of strings with indices
watersheds = ["Suwanne", "Oconee", "Tennessee", "Flint"]
for index, value in enumerate(watersheds):
  print index, value
# can also loop through dictionaries
```

Notes

break, continue, and pass

```
# using break
for number in range(1,8):
 if number < 5:
   print number
 else:
     break
# using continue
for number in range(1,8):
 if number < 5:
   print number
   continue
# pass
for number in range(1,8):
  if number < 5:
    print number
  else:
    pass
```

Notes

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