Introduction to Computer Programming
CSCI-UA 2

Repetition Structures
Loops
Repetition Structures

Loops

Repeatedly execute blocks of code

Introduce nonlinearity into programs

Loops fall into two general categories
- Condition-controlled loops
- Count-controlled loops
Condition-Controlled

“While” Loops

Repeat a block of code while a condition is True

Must initialize variable and set incrementation

```python
i = 0

while i < 10:
    print(i)
    i = i + 1
```
Count-Controlled

“For” Loops

Repeat a block of code a specified number of times

Assumptions are built into for-loops so it is not necessary to initialize variables and set incrementation

for i in range(n):
    print(i)
Loop Keywords

**break**

Let's you jump out of a loop from within the loop body

Allows you to skip over unnecessary statements

Should only be used when it makes your code simpler
Loop Keywords

continue

Related to break statement

Lets you jump to the next iteration of a currently-executing loop

Good for when you want to continue with the loop without doing anything
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