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Day 6: Conditional Statements

Conditional Statements in Python allows the program to make decisions based on conditions. They execute different blocks of code depending on whether a condition evaluates `True` or `False` .

If Statement

```
a = 10
b = 20
if b>a:
    print("b is greater than a.")
```

Important Note

Python relies on indentation (whitespace at the beginning of a line) to define scope in the code. Other programming languages often use curly-brackets for this purpose.

```
a = 33
b = 200
if b > a:
print("b is greater than a") # you will get an error
```

Else Statement

The `else` keyword catches anything which isn't caught by the preceding conditions.

```
a = 20
b = 10
```

```
if b>a:
    print("b is greater than a")
else:
    print("a is greater than b")
```

Elif Statement

The `elif` keyword is Python's way of saying "if the previous statement were not true, then try this condition".

```
a = 10
b = 10

if b>a:
    print("b is greater than a")
elif b==a:
    print("a and b are equal")
else:
    print("a is greater than b")
```

Short Hand

```
# Short Hand - if
if a > b: print("a is greater than b")

# Short Hand - if..else
a = 10
b = 20
print("A") if a > b else print("B")

# Short Hand - 3 conditions
a = 10
```

```
b = 10
print("A") if a > b else print("=") if a == b else print("B")
```

Nested If

You can have `if` statements inside `if` statements, this is called *nested* `if` statements.

```
x = 40

if x > 10:
    print("Above 10")
    if x > 20:
            print("Above 20")
    else:
            print("Not above 20")
else:
    print("Not Above 10")
```