CS50 Lecture 6: Python

Jordan Mandel

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Intro

```
print("hello, world")
```

can get strings

```
answer = get_string("What's your name? ")
print("hello, " + answer)

from cs50 import get_string

answer = get_string("What's your name? ")
print("hello, " + answer)
```

F strings

```
print(f"hello, {anser})
```

if/else:

```
if x < y:
    print("x is less than y")
elif x > y:
    print("x is greater than y")
else:
    print("x is equal to y")
```

boolean expression:

```
while True:
    print("hellow, world")
```

we can write a loop:

```
i=0
while i < 3:
    print("hello, world")
    i += 1
```

can write for loop:

```
for i in [0, 1, 2]: // this is like a list
    print("cough")
```

`range(3)` gives `[0, 1, 2]`
`range(0, 101, 2)` goes from `0` to `100` in increments of `2`.

we can print an integet with print `i`.

data types

- `bool`: `True`, `False`
- `float`
- `int`
- `str`

More complex types include

- `range`: sequence of numbers
- `list`: sequencd of mutable values: can grow or shrink
- `tuple`: tuple: collection of ordered values
- `dict`: key value pairs
- `set`: unique values with no duplicates