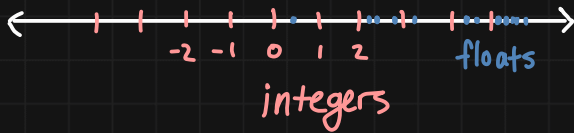


C&S Review

Basic Types:

Day 1



Strings: "hello123!"

Nonetype: None

Booleans: True
False

Variables

Day 2

Python

x = 1.3

y = "elephant"

z = y

Virtual world

x ← 1.3

y ← "elephant"

z ← y

Conditionals

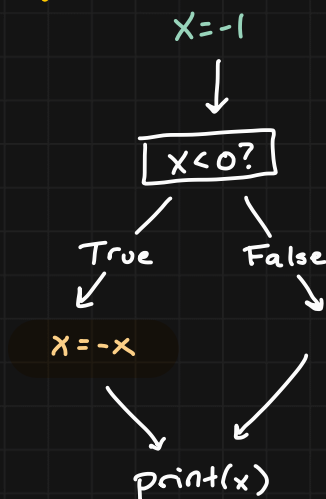
Day 3

x = -1

if x < 0:

x = -x

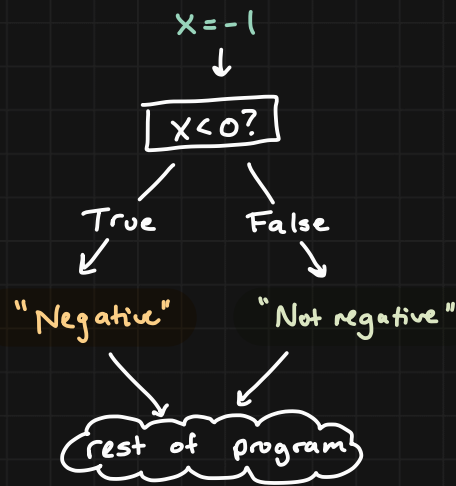
print(x)



```

:
if x < 0:
    print("Negative")
* else:
    print("Not negative")
:

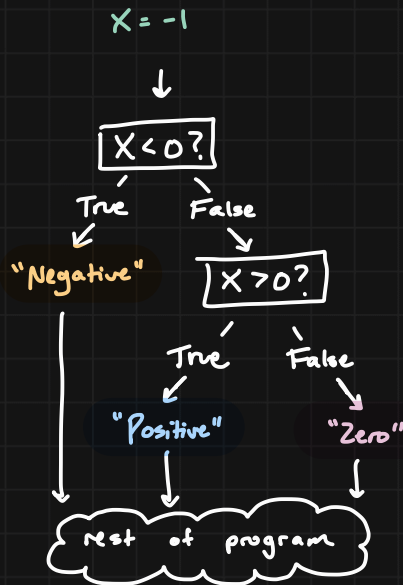
```



```

:
if x < 0:
    print("Negative")
* elif x > 0:
    print("Positive")
else:
    print("Zero")
:

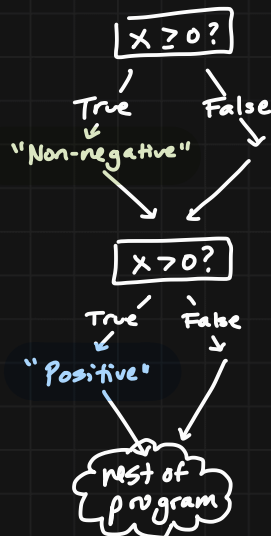
```



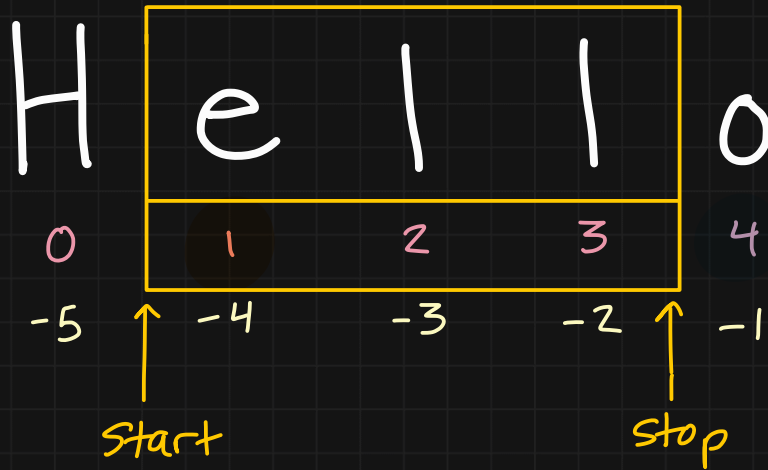
```

:
if x ≥ 0:
    print("Non-negative")
* if x > 0:
    print("positive")
:

```



Indexing / Slicing



```
x = "Hello"
```

```
print(x[1])
```

e

```
print(x[1:4])
```

ell

↑ ↑
start stop*

* not included!

```
print(x[1:])
```

ello

↑
default stop
len(x)

```
print(x[:2])
```

He

↑
default start
0

Lists

y = [1, 2, "blue", -7.8, None]

1	2	"blue"	-7.8	None
0	1	2	3	4
-5	-4	-3	-2	-1

print(y[0]) # 1

print(y[3]) # -7.8

a = []

a.append(1)

a.append(2)

b = ["x", "y", "z"]

a.extend(b)

a.pop()

a ← []

a ← [1]

a ← [1, 2]

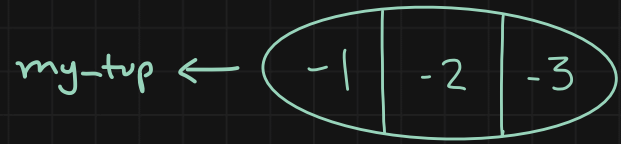
b ← ["x", "y", "z"]

a ← [1, 2, "x", "y", "z"]

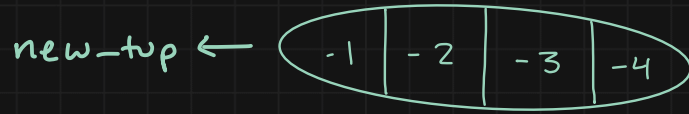
a ← [1, 2, "x", "y"]

Tuples

```
my_tup = (-1, -2, -3)
```



```
new_tup = my_tup + (-4,)
```



can't append like with lists because
tuples are IMMUTABLE.

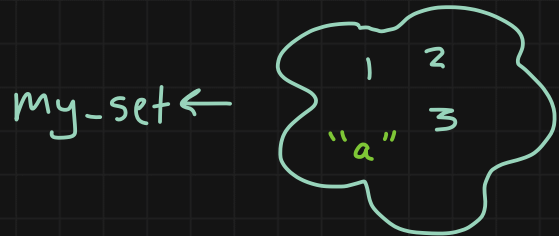
Instead, we create a whole new tuple!

Sets

```
my_set = {1, 2, 3}
```

```
my_set.add("a") *
```

```
my_set.add(1) doesn't do anything!
```



Dictionaries

```
my_dict = {"r": "rock", "s": "scissors", "p": "paper"}
```

```
my_dict["p"] # "paper"
```

```
my_dict["rock"] # error!
```

```
my_dict["p"] = "penguin" *
```

