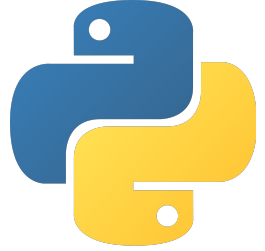


# Coder Kids

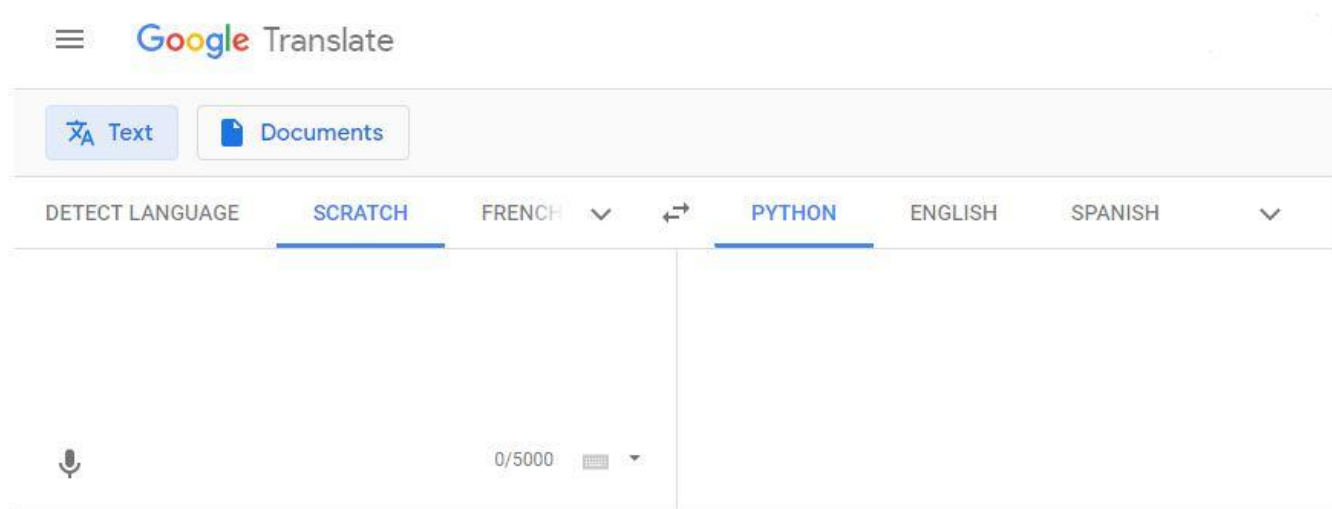
Intermediate

Learn Python



WiFi: connect to *EnterpriseGuest* and sign into the network

# Scratch → Python



Our goal today is to dive into the basics of Python and connect what we learn to what is familiar to us from Scratch.

# No More Green Flags!

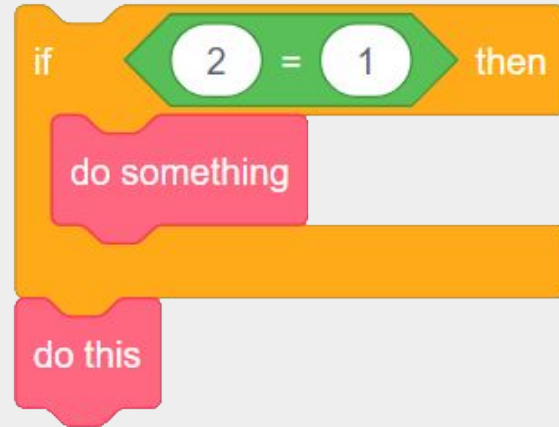


Code runs when a  
**program starts**, you  
don't need to tell it  
that.

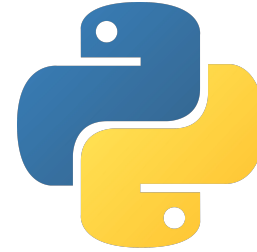
# In Python, **SPACING** **(INDENTATION)** **IS KEY**

```
if 2 == 1:  
    doSomething()  
doThis()
```

=

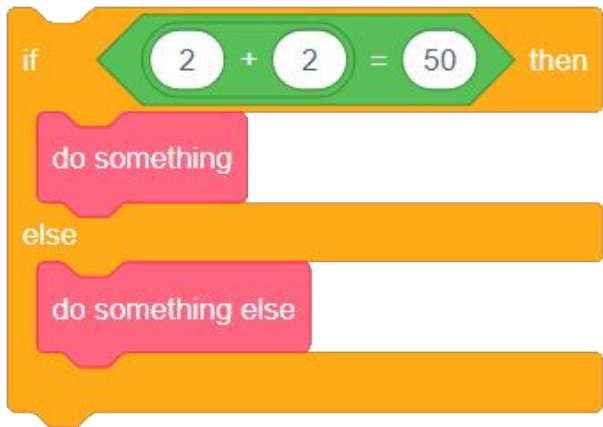


# If Statements



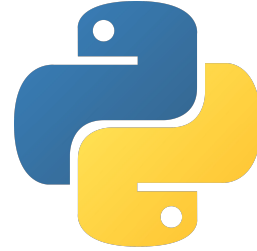
```
if month == "December":  
    wearJacket()
```

# If Else Statements



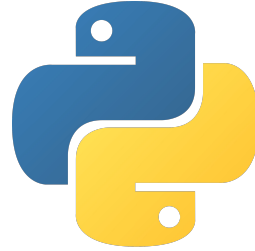
```
if 2 + 2 == 5:  
    doSomething()  
else:  
    doSomethingElse()
```

# If, Else, Else If Statements



```
if 2 == 1:  
    doSomething()  
elif 2 > 1:  
    doSomethingElse()  
else:  
    doAnotherThing()
```

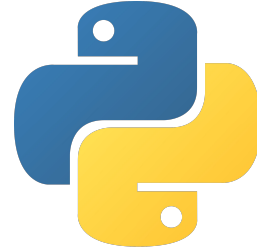
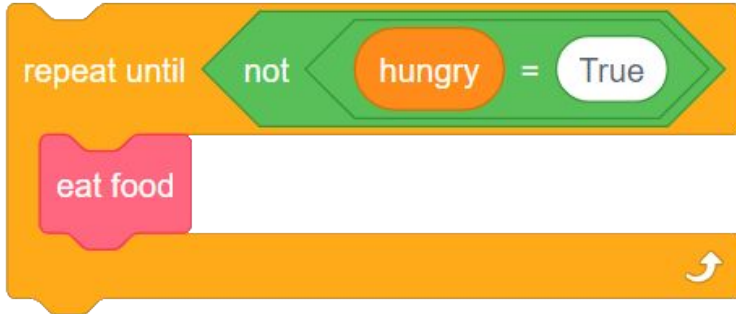
# For and While loops, pt. 1



```
for n in range(10):  
    doSomething()
```



# For and While loops, pt. 2

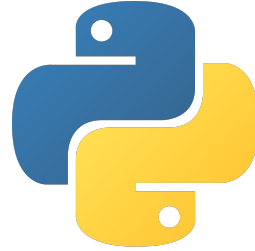


```
while (not hungry):  
    eat()
```

# Nothing is forever: Scratch's 'forever' is a while loop



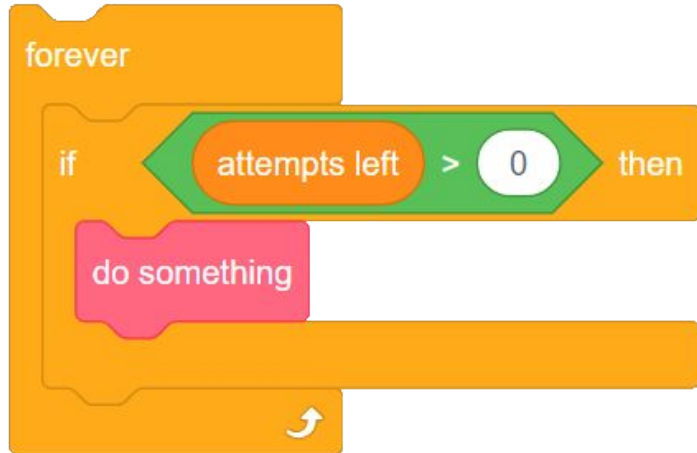
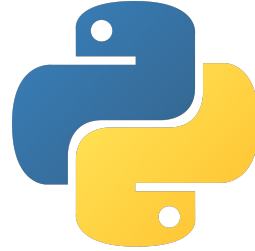
**Scratch:** Do this forever



```
while True:  
    doSomething()
```

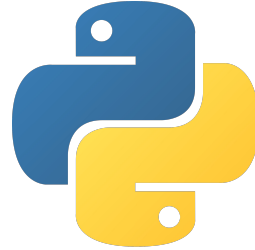
**Python:** Do this while True = True,  
which will never change

# But, forever-if has an equivalent



```
while (attemptsLeft > 0):  
    doSomething()  
    attemptsLeft -= 1
```

# Input and printing lines



```
answer = input("What's your name?")  
print("Hello " + answer)
```

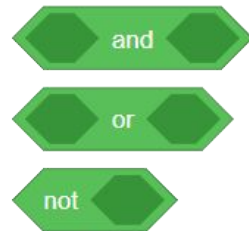
# A few last things to translate...

## Arithmetic



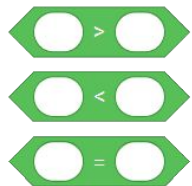
```
4 + 6 # addition
3 - 1 # subtraction
4 * 3 # multiplication
8 / 2 # division
```

## Boolean Operators (we'll get to more on this later)



```
True and False # False
True or False  # True
not True       # False
```

## Comparisons

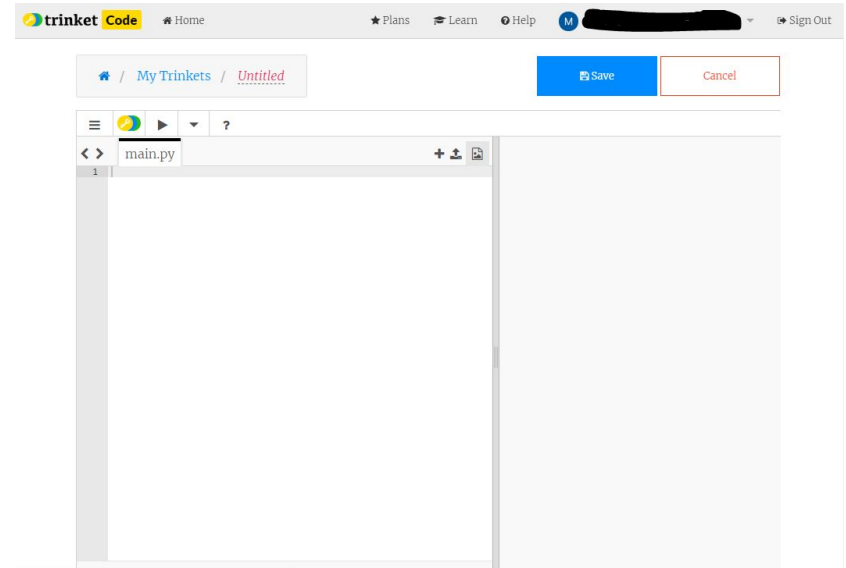


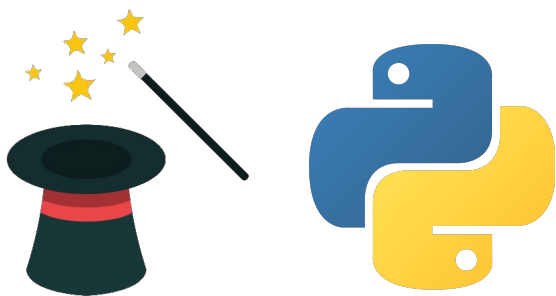
```
2 < 3          # less than
(8 / 2) == 4   # equal to
6 > -2         # greater than
5 <= 5         # less than or equal to
7 >= 4         # greater than or equal to
```

# Let's Get Started

We will be using trinket.io to write and execute Python code in the browser. This also makes it easy for our creations to be in one place, accessible from any and all devices.

1. Go to [www.trinket.io](https://www.trinket.io)
2. Create an account (“Sign up” in the top right)
3. Then, click on your username, navigate to “**new trinket**” in the dropdown, and select “**python**” from there.
4. You should see a page that looks like the one on the right!





# Now, let's make a Guess the Number Game

Go to: <https://trinket.io/python/4198f618do> and click Remix

To see our previous workshop projects, head to  
<https://tinyurl.com/coderkids>



Now, let's make Rock, Paper, Scissors!

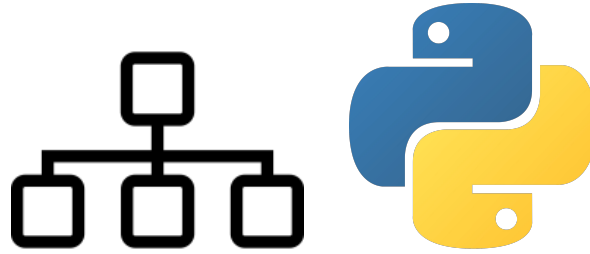
Go to: <https://trinket.io/python/a1610fa335> and click Remix





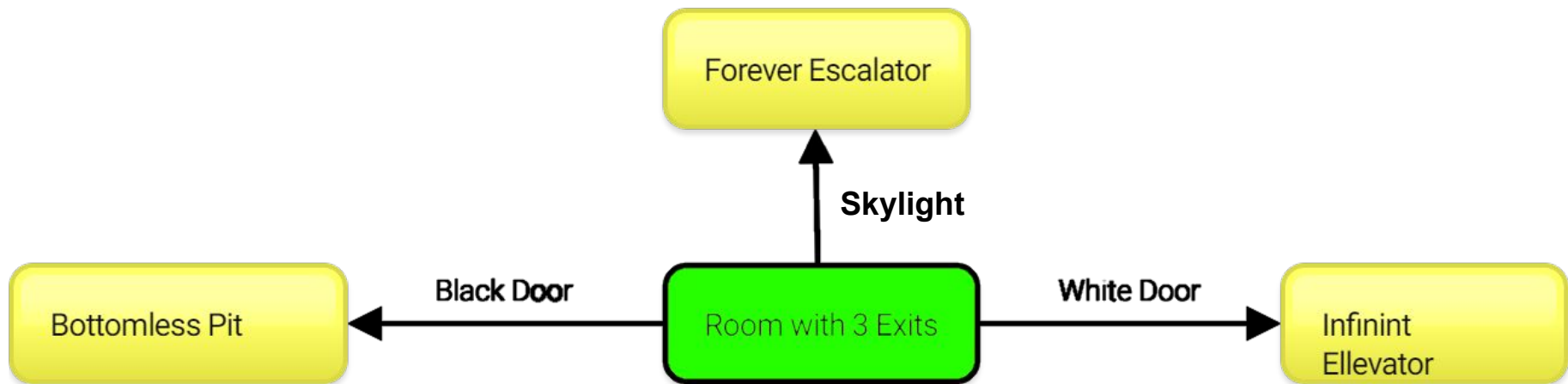
Now, let's make a Trivia Game!

Go to: <https://trinket.io/python/530c70e3e3> and click Remix



Now, let's make a Text Adventure Game!

Go to: <https://trinket.io/python/f2cd8b8921> and click Remix





# Now, let's make a Turtle Program

Go to: <https://trinket.io/python/4e9543d2f5> and click Remix