Welcome to Python

No Sneks Allowed

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Fordham University CS Society

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Hello, Python

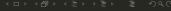
```
1 def main():
2  print("Hello World!")
3
4 if __name__ == "__main__":
5  main()
```



What You Need

- A Text Editor
- A Python Interpreter



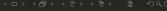


What You Need

- A Text Editor
- A Python Interpreter

Why were your frigging instructions so damn complicated then?





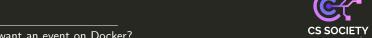
Builds Character



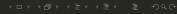


¹Anybody want an event on Docker?

- Builds Character
- Docker is Great ¹







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- I wanted to remove ALL variables from the process for beginners

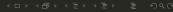




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- Builds Character
- Docker is Great ¹
- I wanted to remove ALL variables from the process for beginners
- You could've skipped them anyways





¹Anybody want an event on Docker?

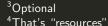
Setup Steps: Get Resources

- All resources at: https://github.com/fordham-css/Python_Workshop
- Either use git clone or download it as a zip file
- Hint: You can download things from terminal on most *NIX systems and in Powershell with \$ wget URL
- Navigate to the resources directory
- You'll be opening VsCode (After Python / Docker is set up) in this directory, by navigating here in Terminal and typing \$ code . or through the GUI on Windows (Ask me)²

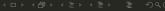
²If you open VsCode in the main folder of the repo it will attempt to install a ton of stuff you don't need.



- Install Text Editor (VsCode Preferred): https://code.visualstudio.com/download
- Install Docker³, find correct link in setup Doc

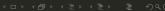






- Install Text Editor (VsCode Preferred): https://code.visualstudio.com/download
- Install Docker³, find correct link in setup Doc
- If using Docker:
 - VsCode Required
 - Make sure you open it in the right directory⁴
 - Install Extension "Remote Containers"
 - Click Orangey Thingy at Bottom Left
 - Select "Reopen in Container"
 - Wait...
 - You're ready





³Optional ⁴That's "resources"

- If not using Docker:
 - Install Miniconda:

https://docs.conda.io/en/latest/miniconda.html

- Open up:
 - Mac: Terminal
 - ullet Windows: Start Menu o Miniconda / Anaconda Prompt 5



⁵I can't remember exactly what it's called, bug me if it won't work.

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- Open up:
 - Mac: Terminal
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- Navigate to "resources" folder inside wherever you downloaded the repo
- Open your text editor and wait



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Setup Steps: VsCode

- If you're using Docker this will already be configured for you
- F1
- > Python: Select Interpreter
- Click the one that that has conda/miniconda somewhere in it
- F1
- > Python: Select Linter
- Click "pylint"
- It will prompt you to install PyLint, let it⁷



⁶Ask for help if you don't see it

¹⁷If it asks whether you want to use conda or pip say conda

You did it!

You now should all have a working Python setup. We'll continue once everybody has gotten it working.





It's got functions

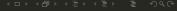




- It's got functions
- It's got variables



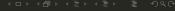




- It's got functions
- It's got variables
- It's got operators







- It's got functions
- It's got variables
- It's got operators
- It's got classes and OOP⁸



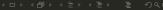




Variables

- For those that haven't programmed before:
 - Not "unknowns" like in math
 - A place to store pieces of information
- Open basics/variables.py

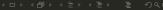




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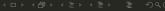
Variables

```
a = 1
b = "A string"
c = {
  "This is": "A dictionary",
  "It's pretty much": "the same thing as a JS object"
d = [a, b, c]
a = b
```

Printing

- It's nice to see the results of our program.
- We do this (in basic programs) by printing to the terminal.
- Anybody know why it's called that?





Printing

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```
print("A string")
print(1)
print([1, 4, 5, 6])
```

- You can print nearly anything, with varying degrees of success
- Try printing some things, see what works well and what doesn't

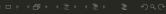




Control Flow

 In its simplest form, a Python script is just a list of instructions the interpreter does sequentially.





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Control Flow

- In its simplest form, a Python script is just a list of instructions the interpreter does sequentially.
- You control the order in which it executes statements using:⁹
 - Conditionals
 - Loops
 - Functions



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