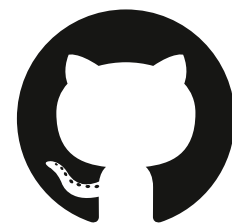


Introduction to Programming

Lesson 1: Introduction & Variables

Python



Lesson Content

1

Agenda Today

An Introduction

Variables

Practice

2

Instructor



therealgg13

4th year CS student

**previously a swim
instructor**

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Outline of content

Variables - booleans, strings, ints

if/else statements

Functions - print versus return

Lists - for/while loops

Outline of content

Object-Oriented Programming

Data Structures - Stacks, Queues

Recursion

**Trees/search algos - Big O,
Omega, Theta (informal)**

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Content Delivery

online *synchronous,*
with a *recording.*

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Lecture Slides

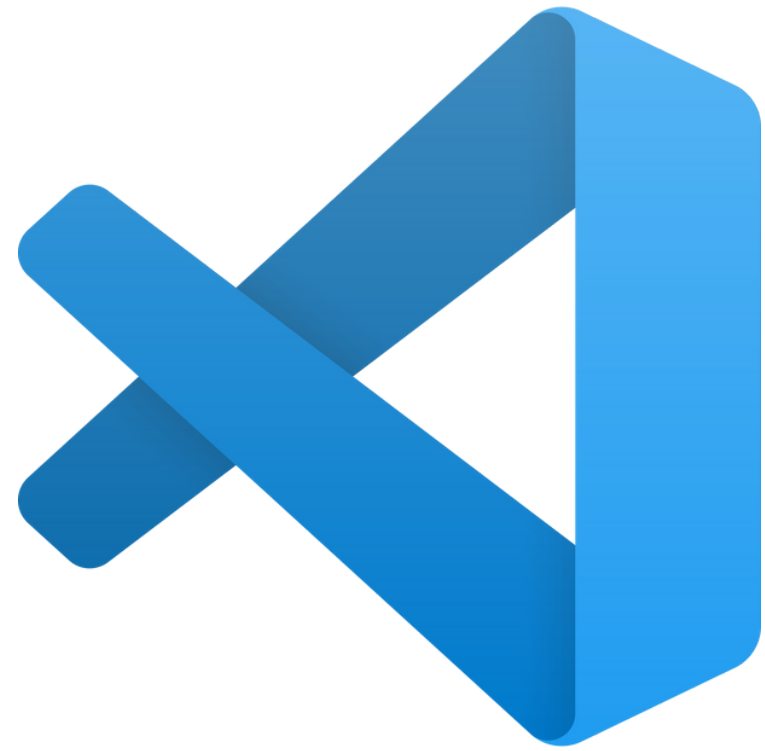
**available upon
request**

7

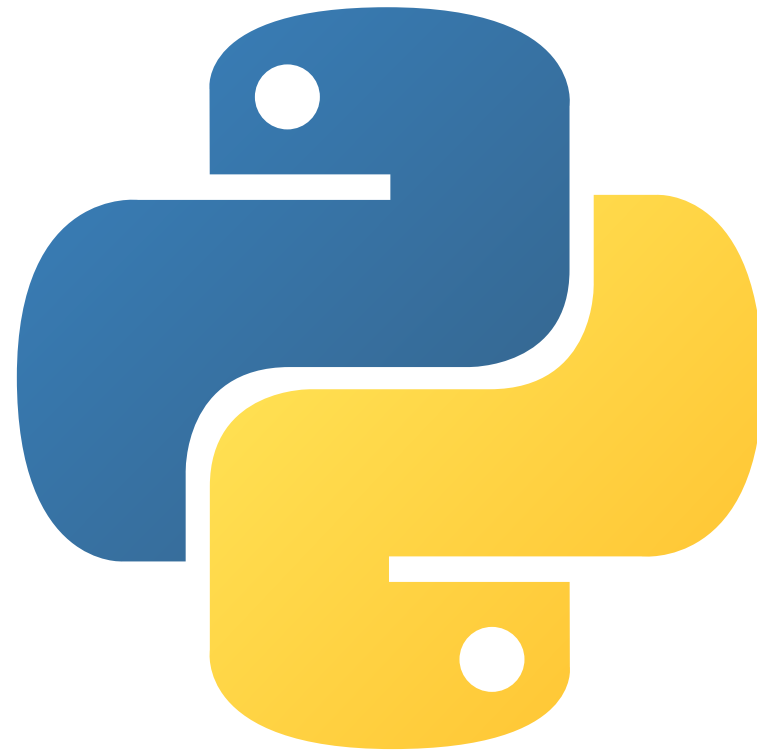
Setup Python

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Setup Python - Tools



**Visual
Studio Code**



Python

What is Python?

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What is Python?



It's a snake!

(what a cutie)

What is Python?



nah, it's this!

a language you can program in.

(ik... way less cuter :())

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What is Python?

Dynamic

OOP

Interpreted

13

Advantages of Python

Simple Syntax

Variable

```
x = 5
```

```
def foo(x: int) -> int:  
    return x + 1
```

```
foo(4)
```

Function

**Function
Call**

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Variables

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Variables

Definition

Variables are data values that can change when the user is asked a question, for example, their age.

More:

<https://www.bbc.co.uk/bitesize/guides/zc6s4wx/revision>

Variables in Python

```
sample_string = "breadgoesbrrr" # string  
sample_float = 0.03 # float  
sample_int = 90 # integer  
sample_boolean = True # boolean (True, False)  
sample_list = ["Hello Toki Club", "Hello MsKitty"]  
# ... many others
```

DEMO

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Questions?

Next Time

Strings & Booleans

If/else statements

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