

Introduction to Programming

Lesson 1: Introduction & Variables

Python

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Agenda Today

An Introduction

Variables

Practice

2

Instructor



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4th year CS student

**previously a swim
instructor**

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Outline of content

Variables - booleans, strings, ints

if/else statements

Lists - for/while loops

advanced topics - trees/search

algos. and recursion

Content Delivery

online *synchronous,*
with a *recording.*

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Lecture Slides

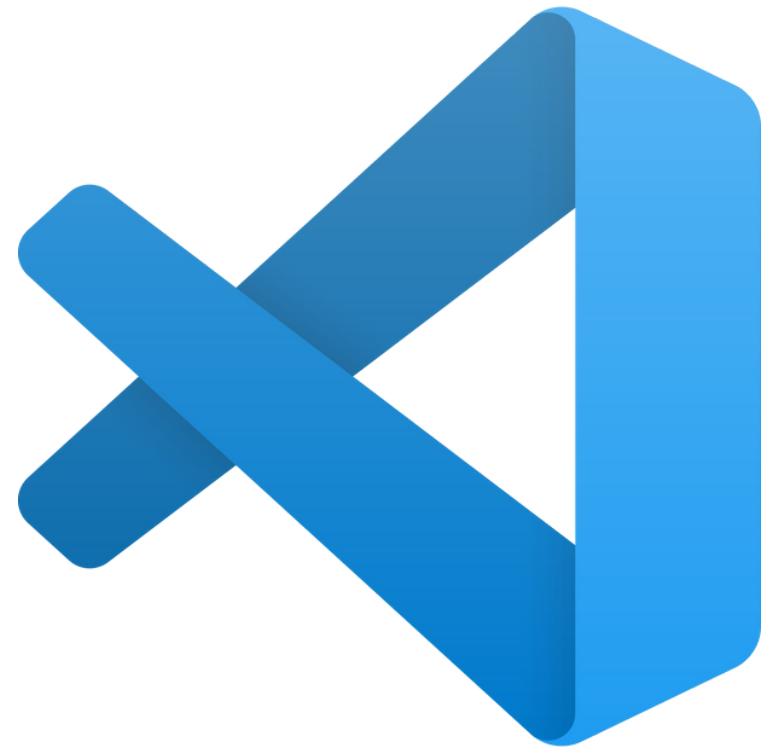
**available upon
request**

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Setup Python

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Setup Python - Tools



**Visual
Studio Code**



Python

What is Python?

What is Python?



It's a snake!

(what a cutie)

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What is Python?



nah, it's this!

a language you can program in.

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

What is Python?

Dynamic

OOP

Scripting

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What is Python?

Dynamic

OOP

Scripting

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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 = "" # string
sample_float = 0.03 # float
sample_int = 2 # integer
sample_bool = 0 # boolean (0 = false, >1 = true)
sample_bool2 = True # boolean (True, False)
# ... many others
```

DEMO

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Questions?