SHAPING THE WORKFORCE OF THE FUTURE WITH

CODEMASTERS FOR REFUGEE TALENT

LESSON 1

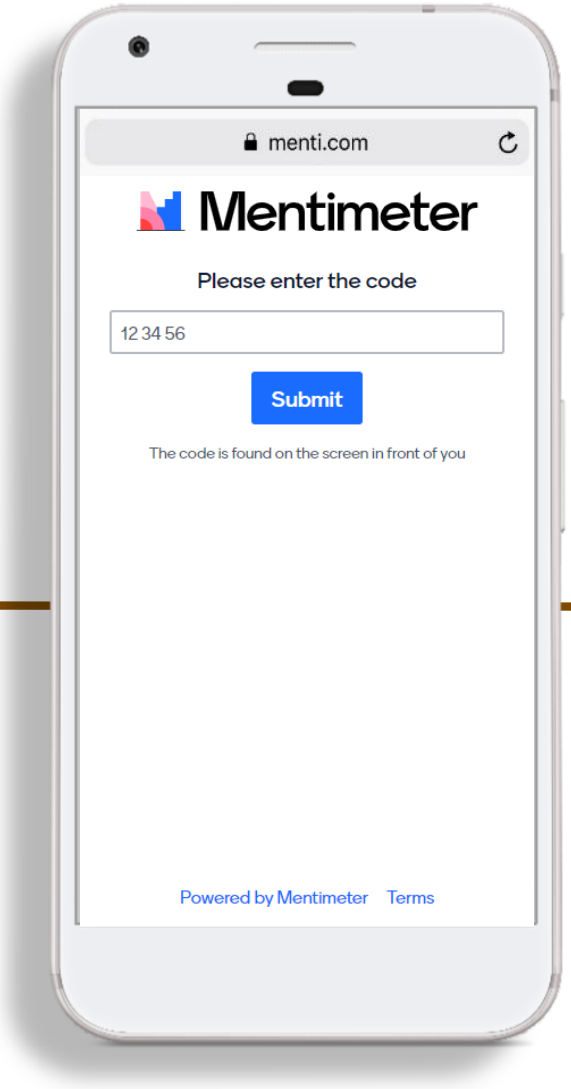
CODE MAST ERS

MENTIMETER

TELL US WHAT YOU THINK

What is your programming experience?

What do you expect?



1. Use your phone or your laptop
2. Go to Menti.com
3. Enter the code 1076346 and respond

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WHO ARE WE?

Andreea Moga
Associate Manager
Books, Salsa
1/2 year at Accenture
7 years in IT Consultancy
Fun stuff: in 2012 my english was bad | my dutch was zero

Leonie Dorresteijn
Consultant
Yoga, Salsa, Gaming
3 year at Accenture

WHO ARE THE PARTNERS

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WHAT IS CM4RT?

A **10-week** program with a group of talented refugees seeking an interest in coding

Python programming course

Hosted by and at Accenture, partners, and clients

Creates and shapes the workforce of the **future**!

A learning, valuable, and fun experience!

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WHO ARE YOU?

INTRODUCTIONS!

State your **name**, your (technical) **background**, and your favourite **food**!

2. LESSON OVERVIEW | TIMELINE

LESSON 1
FIRST LINE OF CODE
- Variables
- Comments
- Whitespace
- String operations

6 JAN

KICK – OFF
LESSON 1
Warm welcome to all our students!

LESSON 2
STRINGS AND LOGIC
- String operations
- Working with Data & Time
- Conditionals (operators, Boolean logic)

13 JAN

SOFT SKILLS (AFTER LESSON 2)

LESSON 3
FUNCTIONS, LISTS & DICTIONARIES
- Functions (custom & built-in)
- Lists (defining, selecting, modifying)
- Dictionaries

20 JAN

LESSON 4
LISTS IN FUNCTIONS, LOOPS
- For loop
- Iterating over a list

27 JAN

LESSON 5
ADVANCED
- "In" function
- Bitwise operators

3 FEB

LESSON 6
CLASSES
Introduction to classes and the concept of object-oriented programming

10FEB

CV & LINKEDIN
ADDITIONAL TO LESSON 6
Tips and tricks to make your profile stand out!

LESSON 7
FILE I&O / START FINAL ASSIGNMENT
- Reading and writing to flat text files
- Introduction to the final assignment

17 FEB

SOFT SKILLS (AFTER LESSON 9)

LESSON 8-10
FINAL ASSIGNMENT
The students work on an assignment of their own choice

24 FEB– 10 MAR

ONLINE DRINKS
AFTER FINAL SESSION ON MARCH 10
Time to celebrate the end of the program!

THE FINAL ASSIGNMENT

PYTHON

WHAT IS IT?

Python is a **programming language,** one of the most loved in the world because of its ease of use and number of applications.

Python can..

..make movie recommendations

..visualize data clusters

..control robots

..do pretty much anything.

But only if you tell it to.

And especially HOW

?

Did you know? Python is not named after the snake, but after the British TV show Monty Python

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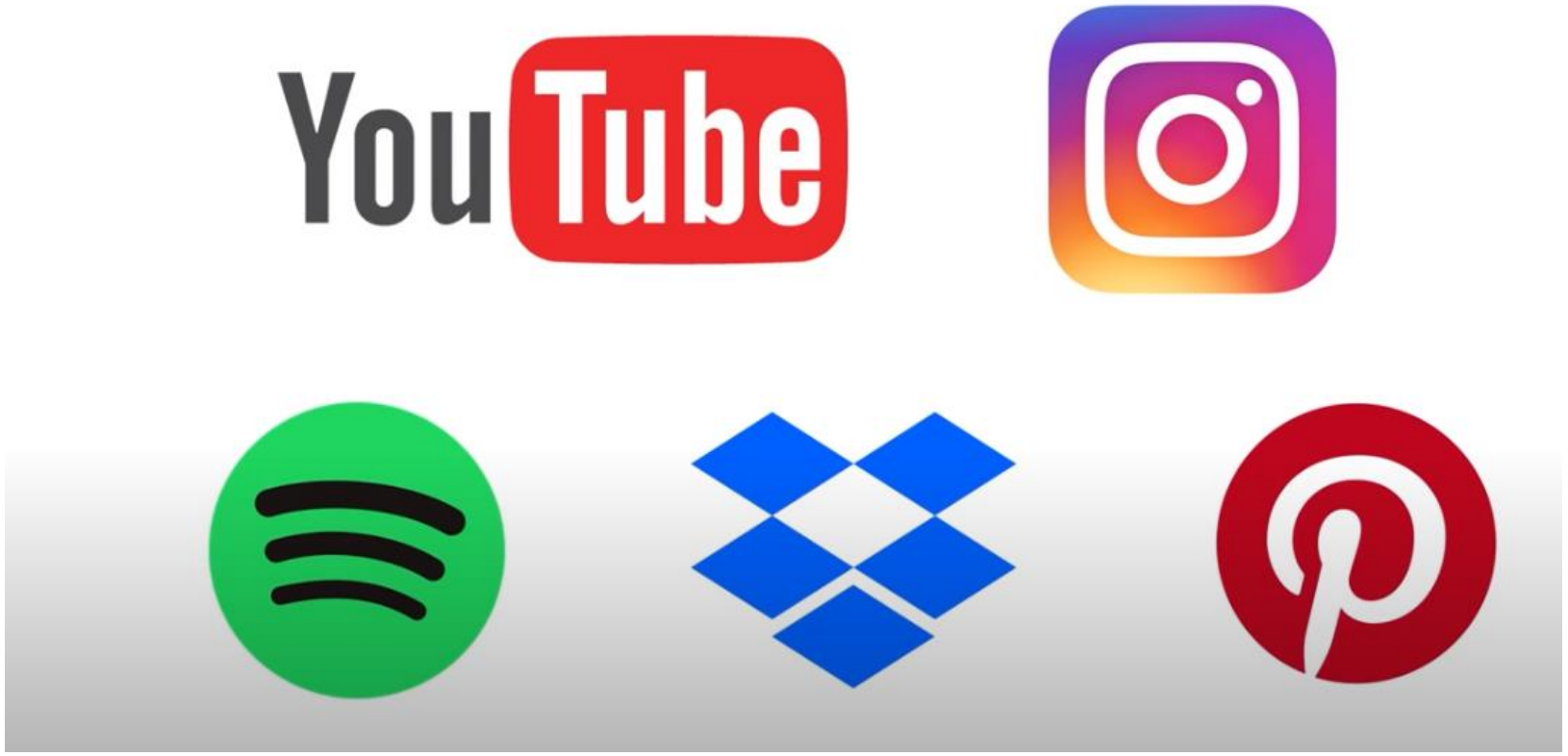
PYTHON

& Django



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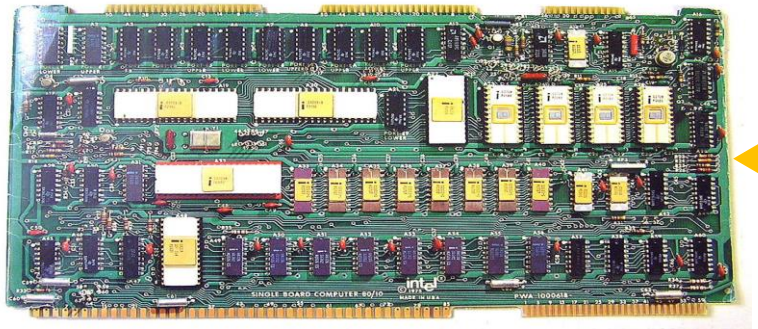
BACKGROUND ON PROGRAMMING



Level of abstraction

Machine code
00101011 01010111

Assembler languages
MOV SRC, DST

C

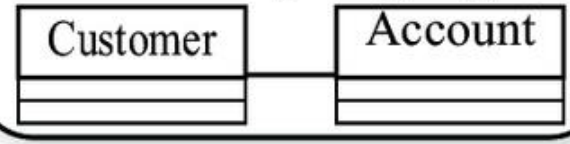
Procedural languages
void main(){
printf("Hello!\n");}

C++

python

Object-oriented languages
public class Customer {
private String name;}

Modeling languages



?

Time

GETTING CONNECTED

slack

Collaborate on Slack

Click on the link in Teams chat:

- Download & install app: link here
- Join the workspace: link here

- For attendance
- For asking questions
- For helping/answering questions of teachers/fellow students

GETTING CONNECTED

Go to www.codecademy.com to create a **free** account

Go to python 2 course

codecademy

DEMO CODEACADEMY

LEARNING PYTHON

In today's class you will learn about the syntax of the Python programming language and will be focusing on the following:

Printing to the screen

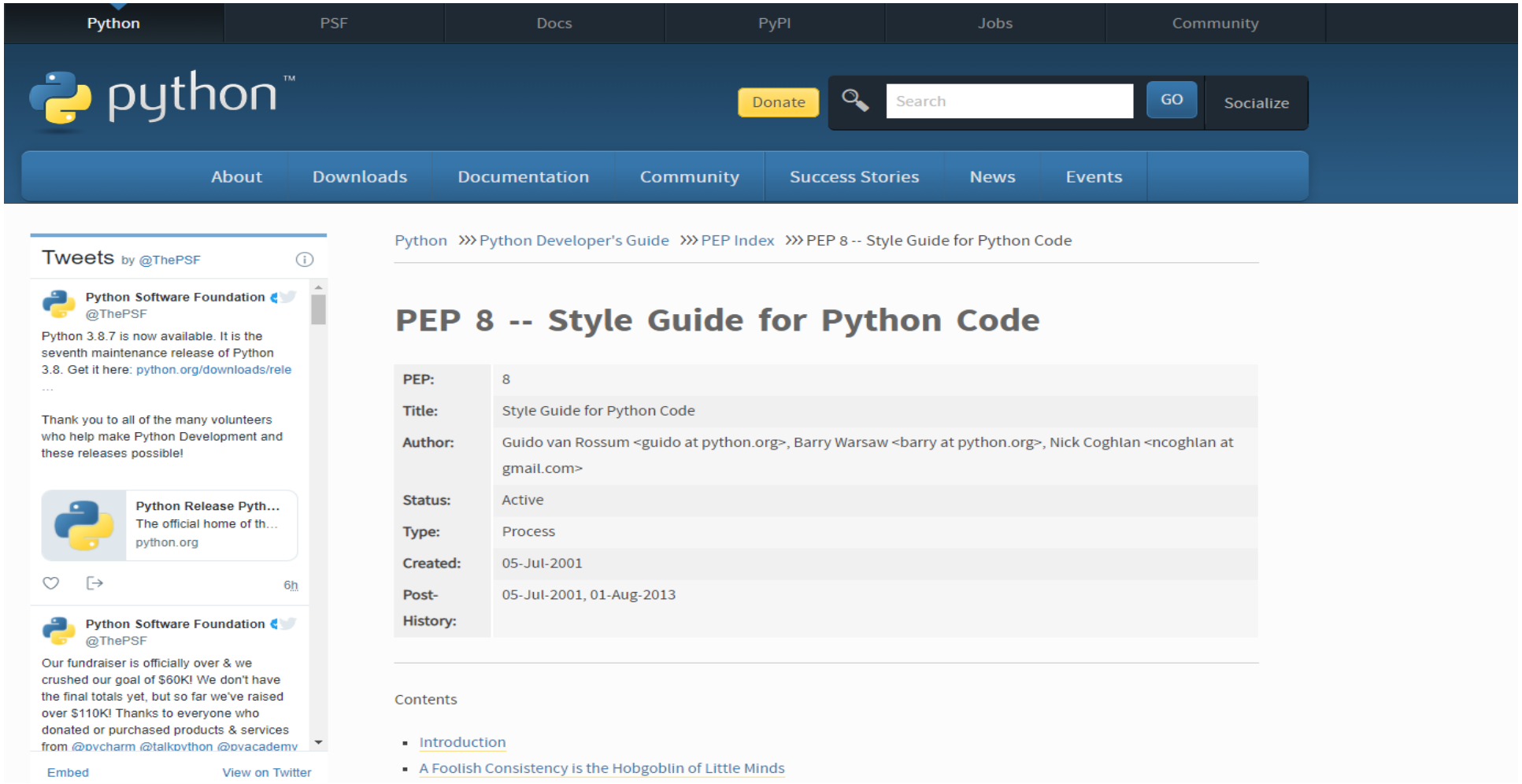
Numbers and text

Errors

Variables

PEP8 PYTHON

STYLE GUIDE FOR PYTHON CODE



PRINT STATEMENTS

```
1  print "Hey there"
2  print "How are you today?"
```

OR

```
1  print 'Hey there'
2  print 'How are you today?'
```

When printing things in Python, we are supplying a text block that we want to be printed to the screen

Text in Python we call a `string`

Strings require a single ‘ or a double “ quote

```
Hey there
How are you today?
```

Both have the same result

HANDLING ERRORS

```
1    print 'this string
```

```
  File "script.py", line 1
    print 'this string
                      ^
SyntaxError: EOL while scanning string literal
```

If Python does not understand, it will throw an **error**. It will tell you what went wrong, and where.

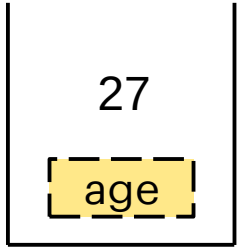
VARIABLES

```
1   age = 27
2   name = "Lisa"
3   print name, 'is', age
```

```
Lisa is 27
```

A variable is like a box, which holds values for you.

You can, among others, put numbers or text (remember string) in these boxes and name them.

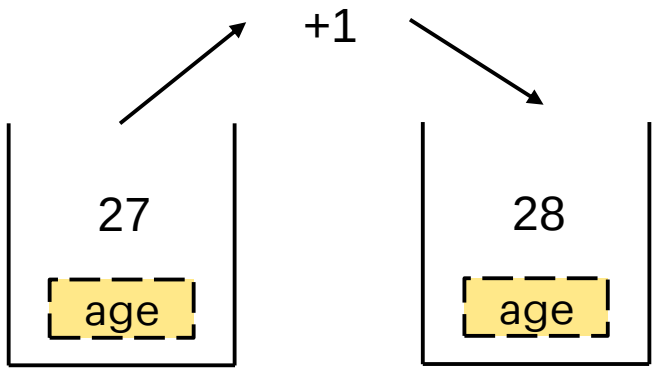


UPDATING VARIABLES

```
1   age = 27
2   name = "Lisa"
3
4   age = age + 1
5   print name, 'is', age
```

```
Lisa is 28
```

We can also change the contents of the variable. Here, we add one year to the variable age after Lisa's birthday.



LET’S GET TO PROGRAMMING

SEE YOU NEXT WEEK!

Homework for next week:

Finish codecademy lesson 1
Ask questions through Google Form or Slack