PYTHON FUNDAMENTALS

Joris Hoendervangers

Bootcamp

October 2020

ABOUT THE INSTRUCTOR

Joris Hoendervangers

- 2018 - now: Python trainer / developer
- 2018 - 2019: Consultant at ING Bank
- 2015 - 2018: Thomson Reuters
- 2010 - 2014: Fixed Income Trading
- Degree: MSc Financial Management

LEARNING OBJECTIVES

During this Bootcamp, you will learn:

- The fundamentals of the Python programming language
- About the software tools Anaconda and Jupyter Notebooks
- Basic programming skills:
  - Day 1: Variables & Datatypes
  - Day 2: Data Structures
  - Day 3: Flow control
  - Day 4: Functions

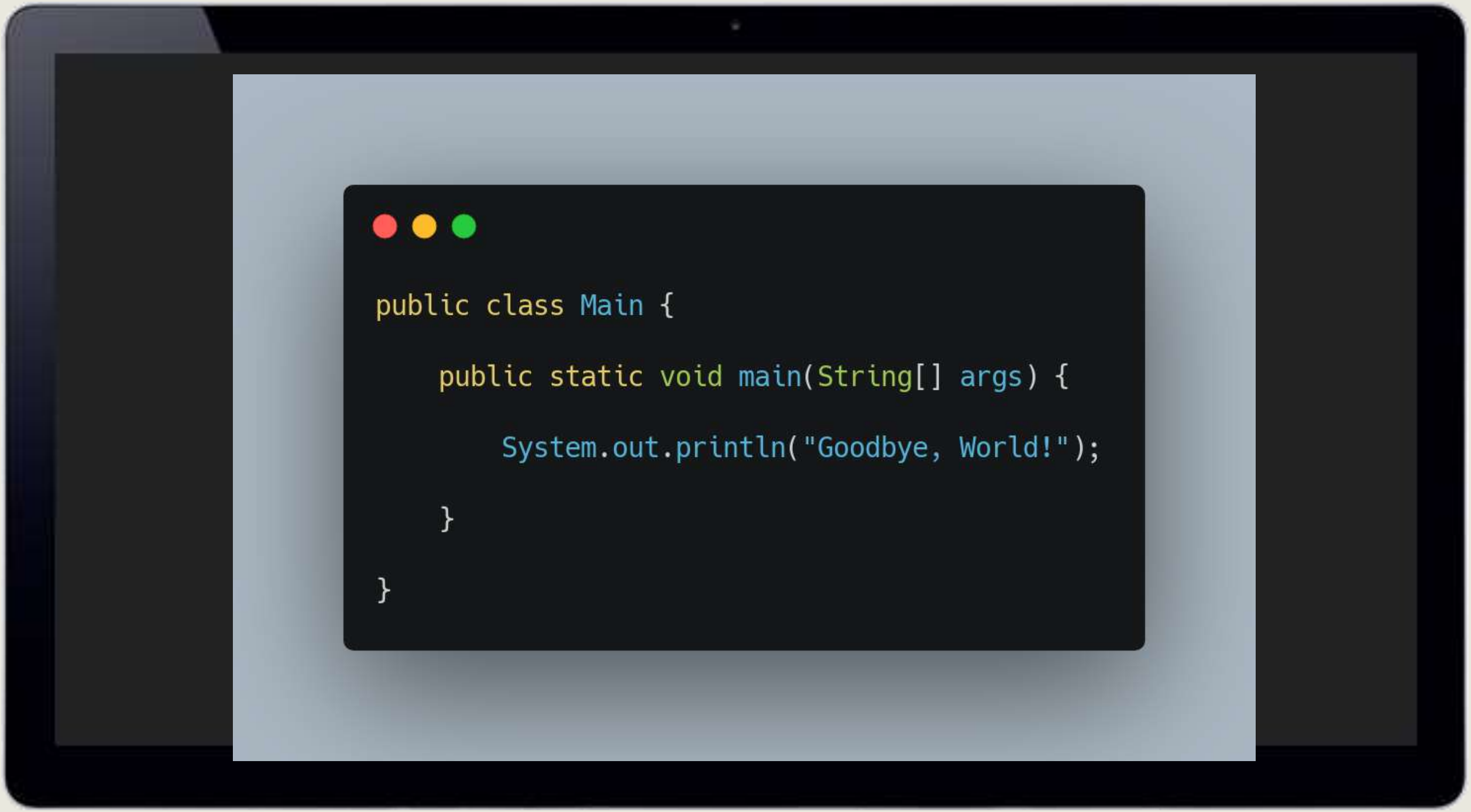
INTRODUCTION TO PYTHON

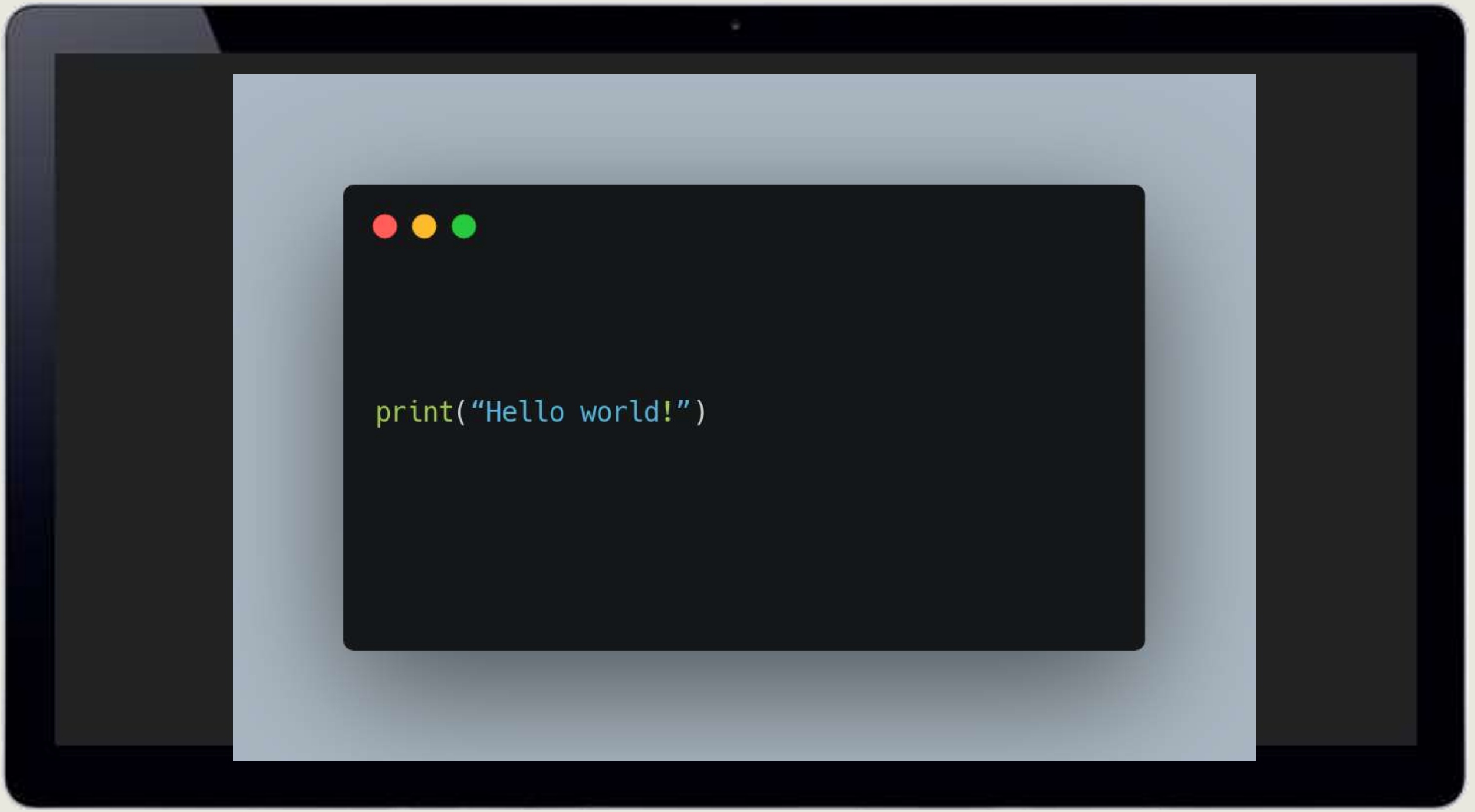
Background information:

- Started in 1991
- Created by Guido van Rossum
- Used for data science, web development, and automation
- Open Source
- Welcoming community

TIOBE INDEX

Oct 2020	Oct 2019	Change	Programming Language	Ratings	Change
1	2	↑	C	16.95%	+0.77%
2	1	↓	Java	12.56%	-4.32%
3	3		Python	11.28%	+2.19%
4	4		C++	6.94%	+0.71%
5	5		C#	4.16%	+0.30%
6	6		Visual Basic	3.97%	+0.23%
7	7		JavaScript	2.14%	+0.06%
8	9	↑	PHP	2.09%	+0.18%
9	15	⇈	R	1.99%	+0.73%
10	8	↓	SQL	1.57%	-0.37%


public class Main {
public static void main(String[] args) {
System.out.println("Goodbye, World!");
}
}


print(“Hello world!”)

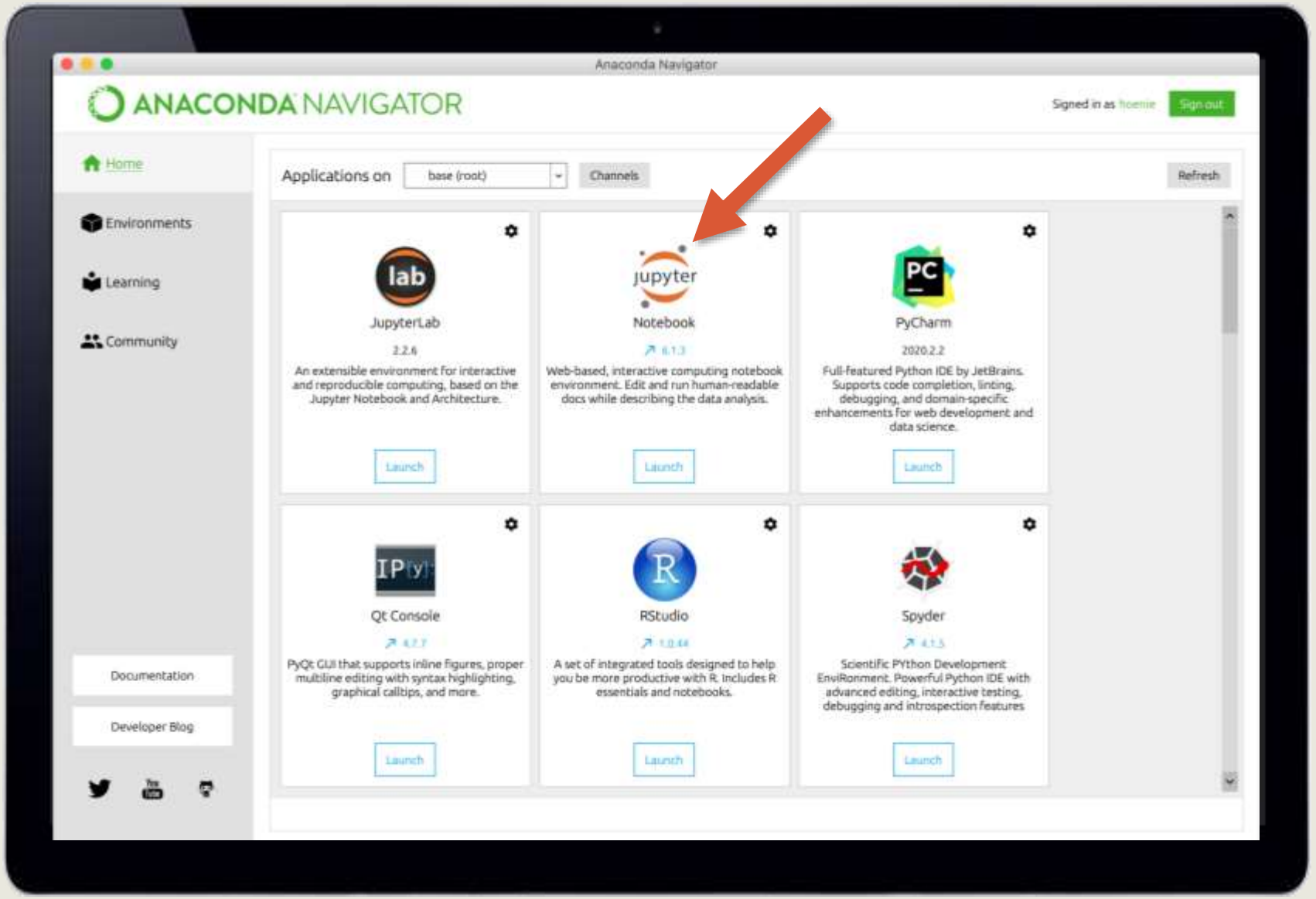
ANACONDA

Python installation

“Anaconda is a free and open-source distribution of the Python and R programming languages for scientific computing, that aims to simplify package management and deployment. ”

Download at: https://www.anaconda.com/download

ANACONDA NAVIGATOR

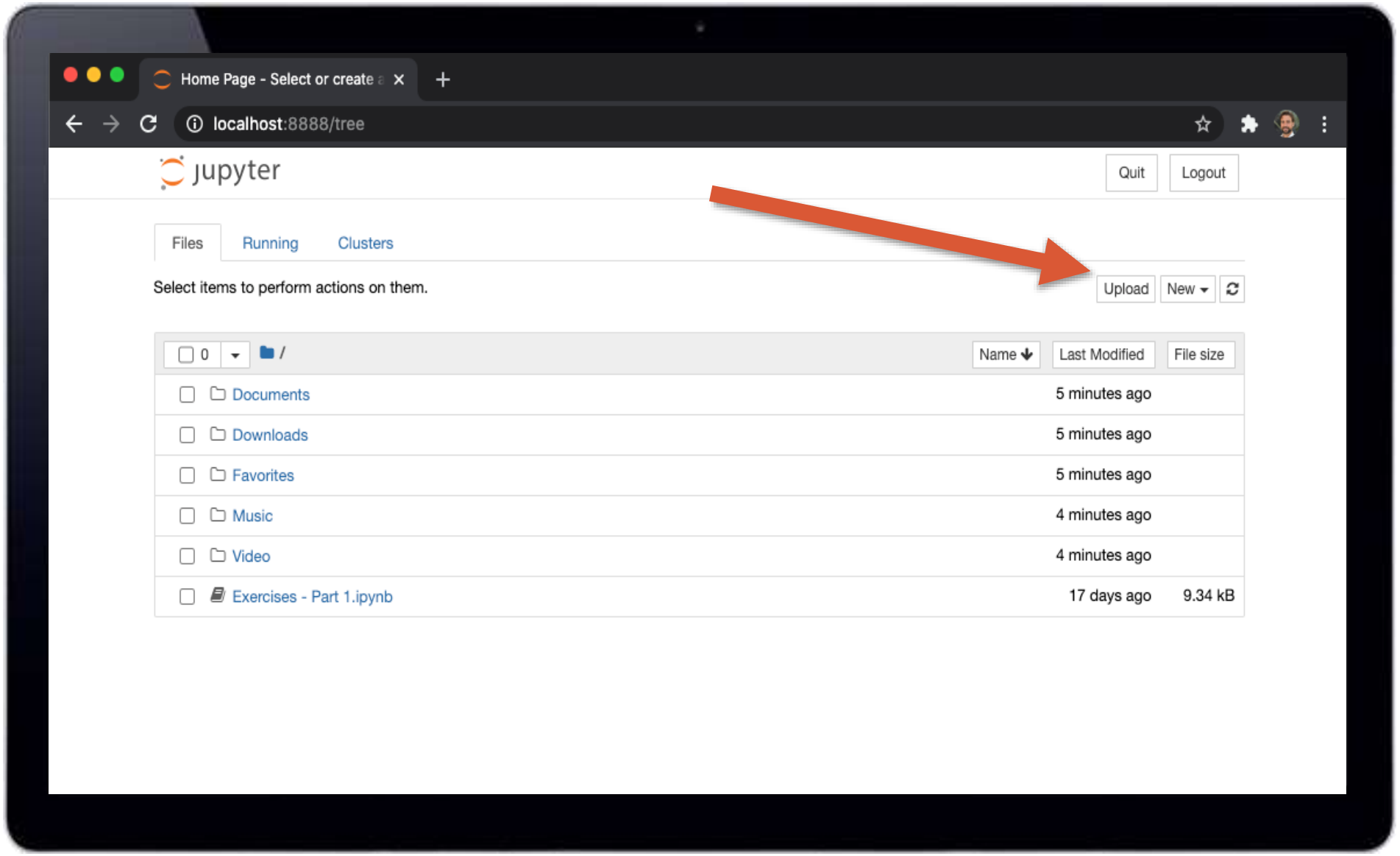


JUPYTER

Editor

“The Jupyter Notebook is an open-source web application that allows you to create and share documents that contain live code, equations, visualizations and narrative text.”

ADDING FILES IN JUPYTER



LAB SESSION 1

Topics:

- Simple arithmetic operations
- Variables
- Keywords
- Comments
- Datatypes
- Print statements

LEARNING OBJECTIVES

During this Bootcamp, you will learn:

Day 1:

- ✓ Variables
- ✓ Datatypes (string, int, float, bool)

Day 2:

- Data structures (lists, tuple, dict, set)

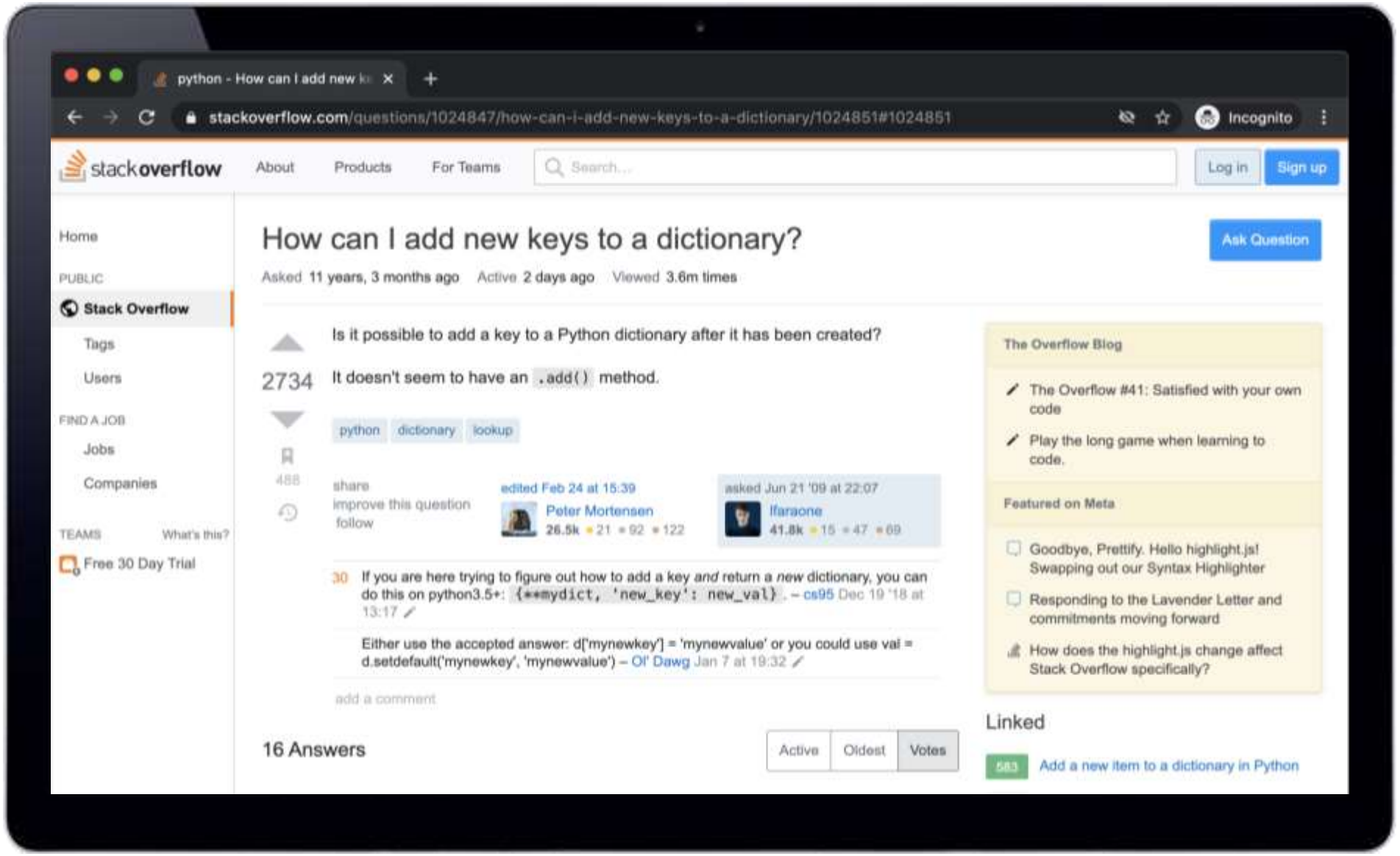
Day 3:

- Flow control
  - If / else statements
  - For loops

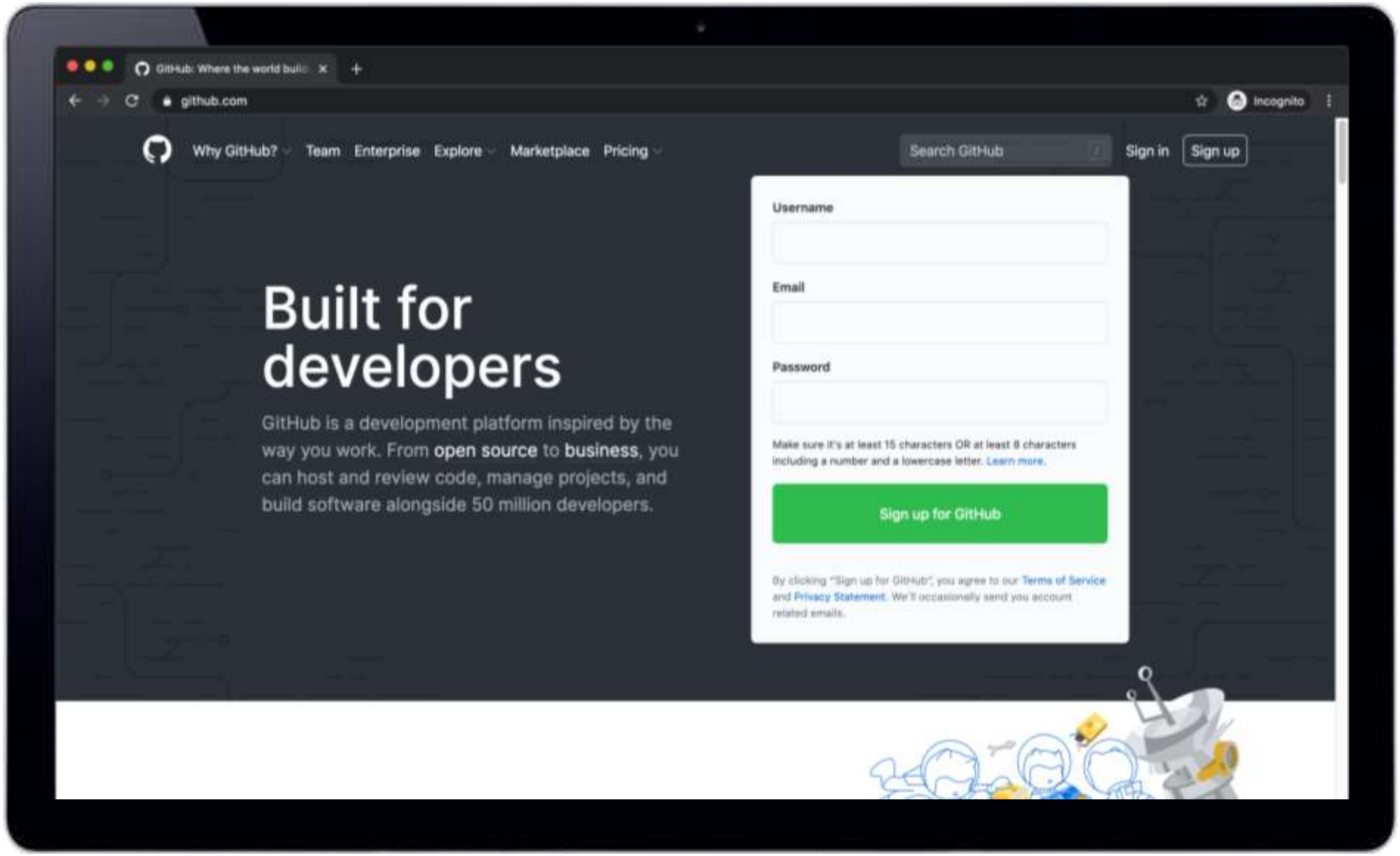
Day 4:

- Functions
  - User defined functions
  - Modules
  - Packages

STACKOVERFLOW



GITHUB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Incognito
Why GitHub?
Team
Enterprise
Explore
Marketplace
Pricing
Search GitHub
Sign in
Sign up
Built for developers
GitHub is a development platform inspired by the way you work. From open source to business, you can host and review code, manage projects, and build software alongside 50 million developers.
Username
Email
Password
Make sure it's at least 15 characters OR at least 8 characters including a number and a lowercase letter. Learn more.
Sign up for GitHub
By clicking "Sign up for GitHub", you agree to our Terms of Service and Privacy Statement. We'll occasionally send you account related emails.

EXERCISES

Instructor video will appear here during live session. Delete this placeholder before presenting

- HackerRank https://www.hackerrank.com/
- LeetCode https://leetcode.com
- Codingame https://www.codingame.com/
- Exercism https://exercism.io

THE END

See you tomorrow!