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

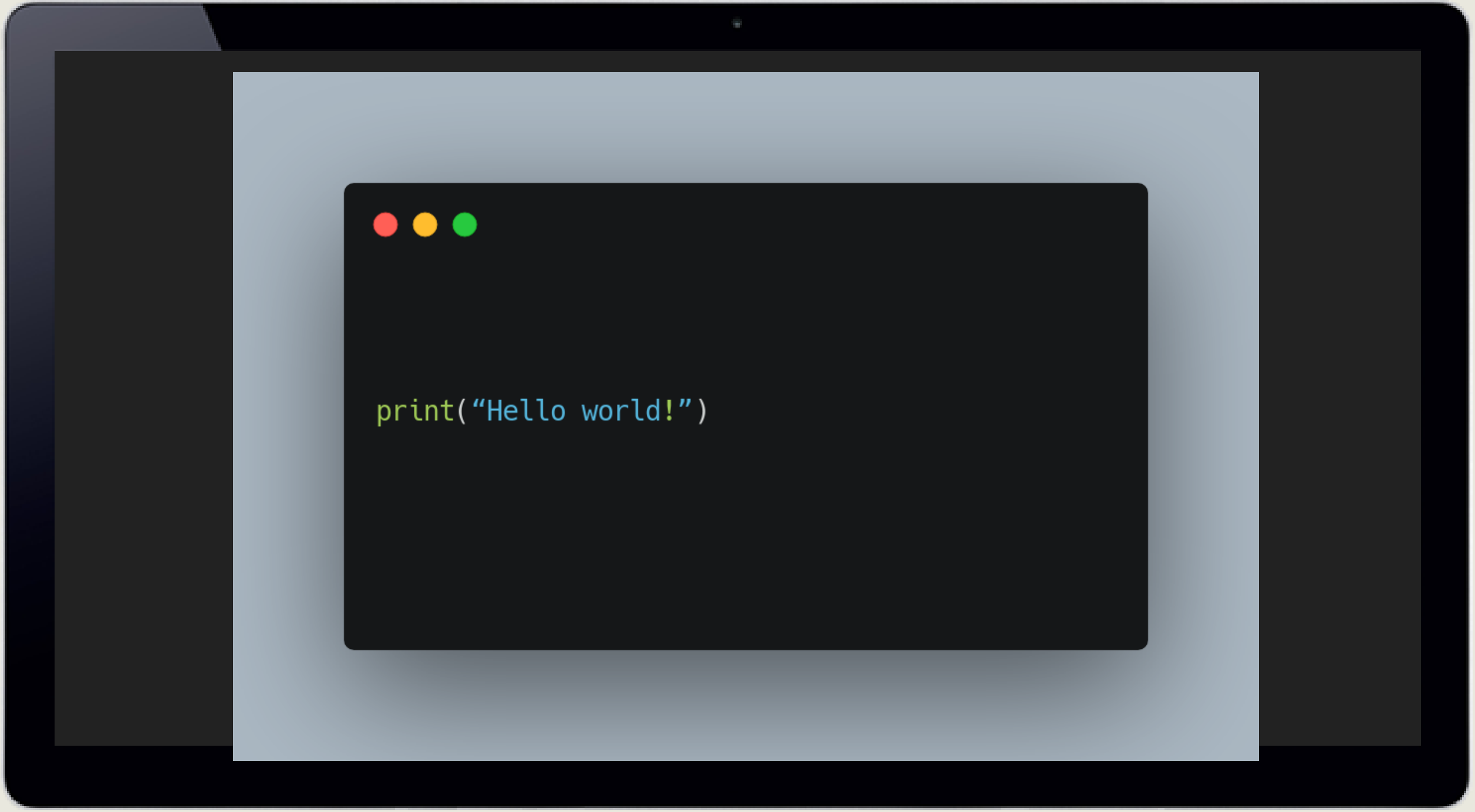
Background information:

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

TIOBE INDEX

May 2024	May 2023	Change	Programming Language	Ratings	Change
1	1		Python	16.33%	+2.88%
2	2		C	9.98%	-3.37%
3	4	↑	C++	9.53%	-2.43%
4	3	↓	Java	8.69%	-3.53%
5	5		C#	6.49%	-0.94%
6	7	↑	JavaScript	3.01%	+0.57%
7	6	↓	Visual Basic	2.01%	-1.83%
8	12	⇈	Go	1.60%	+0.61%
9	9		SQL	1.44%	-0.03%
10	19	⇈	Fortran	1.24%	+0.46%

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


print(“Hello world!”)

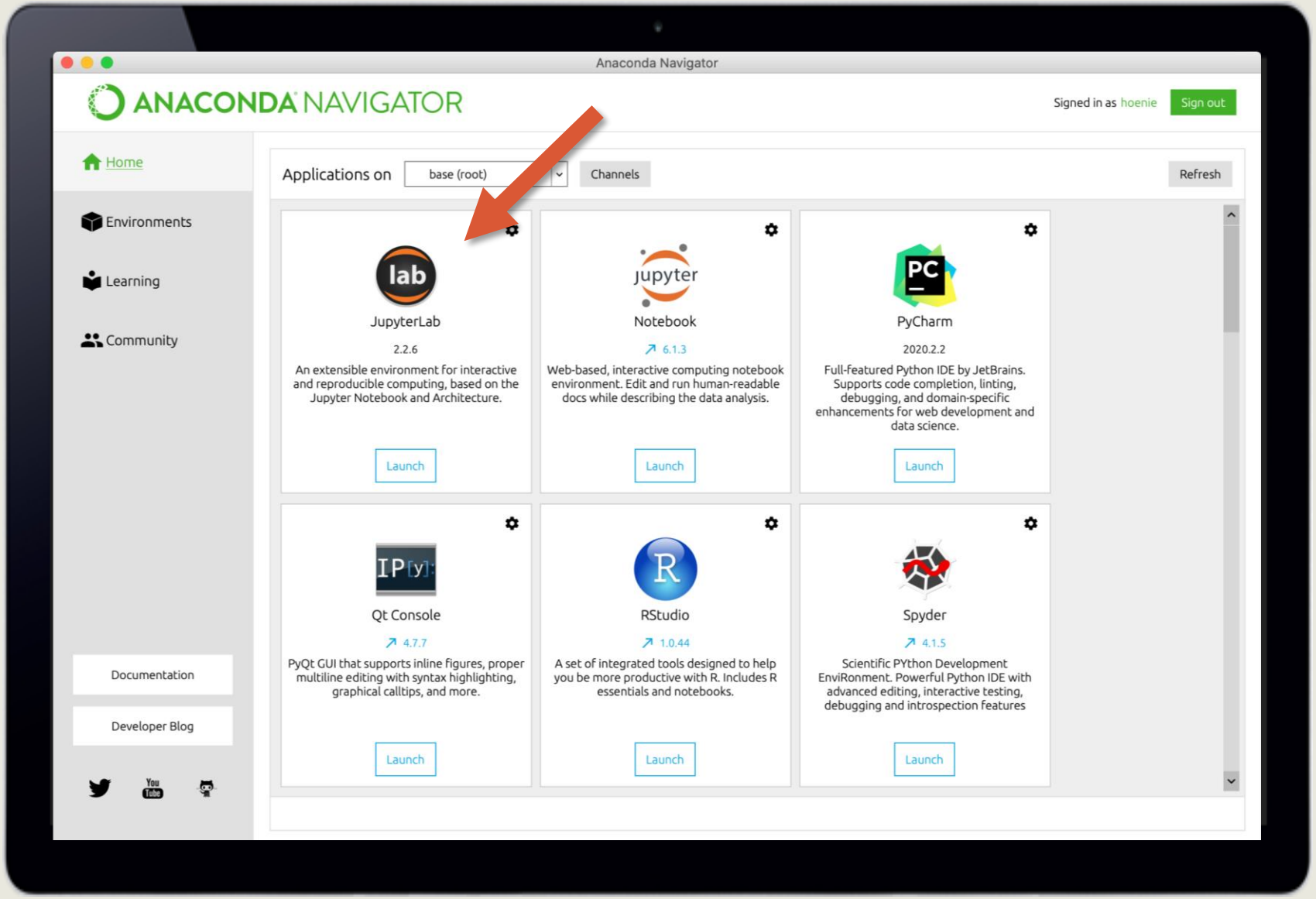
ANACONDA

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

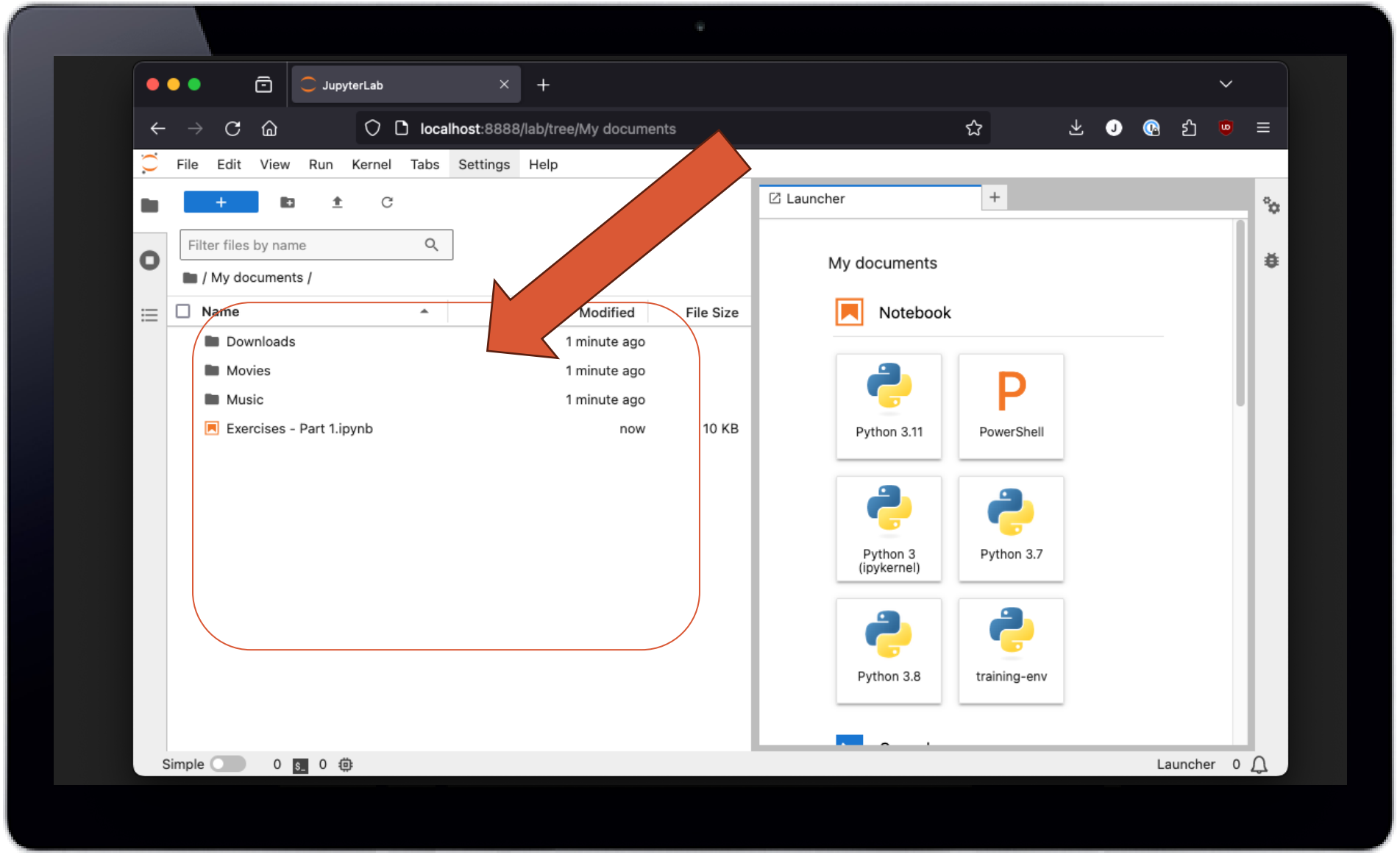


JUPYTER

Editor

“The Jupyter Lab 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)

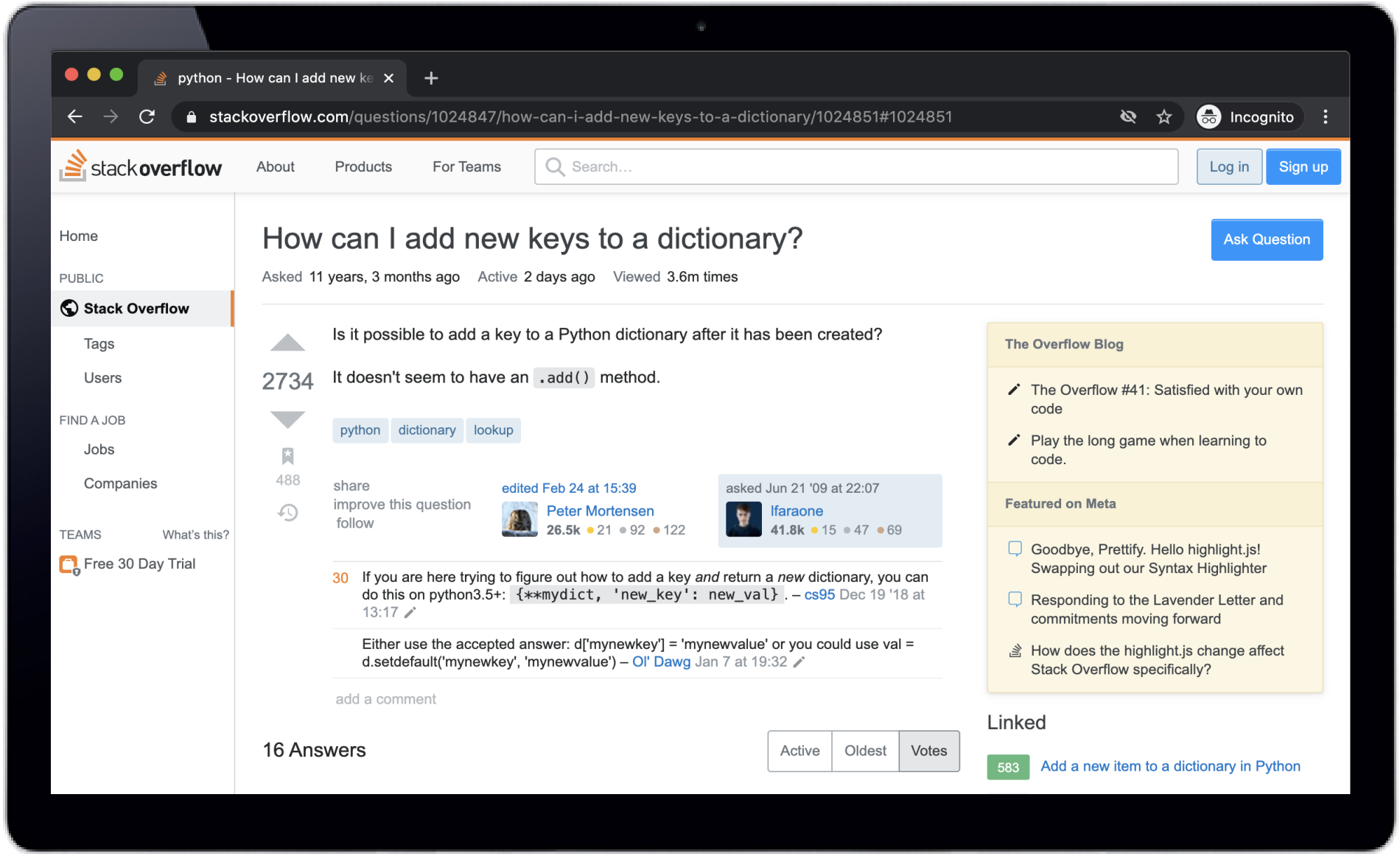
Day 3:

- Flow control
  - If / else statements
  - For loops

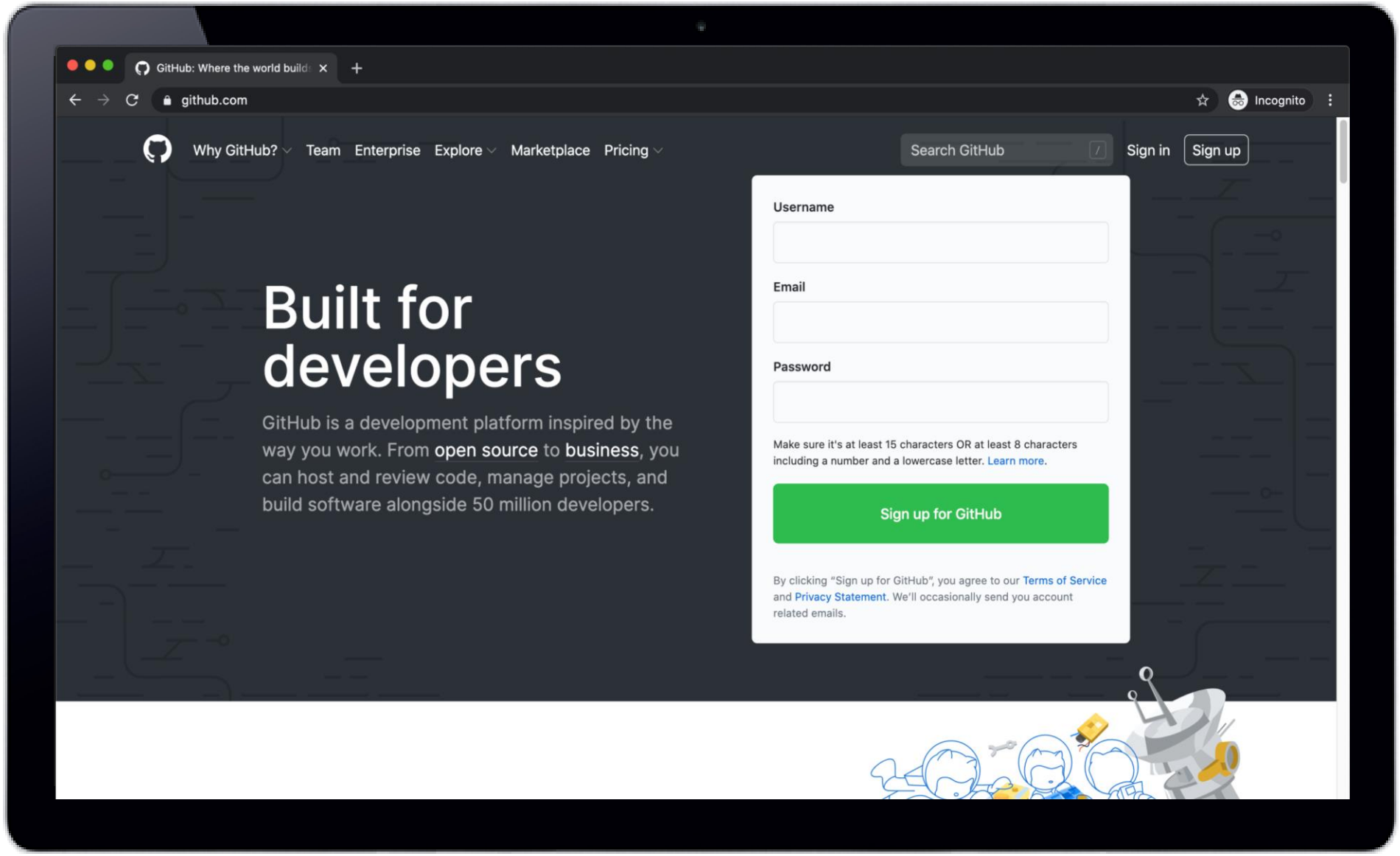
Day 4:

- Functions
  - User defined functions
  - Modules
  - Packages

STACKOVERFLOW



GITHUB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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
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Make sure it's at least 15 characters OR at least 8 characters including a number and a lowercase letter. Learn more.
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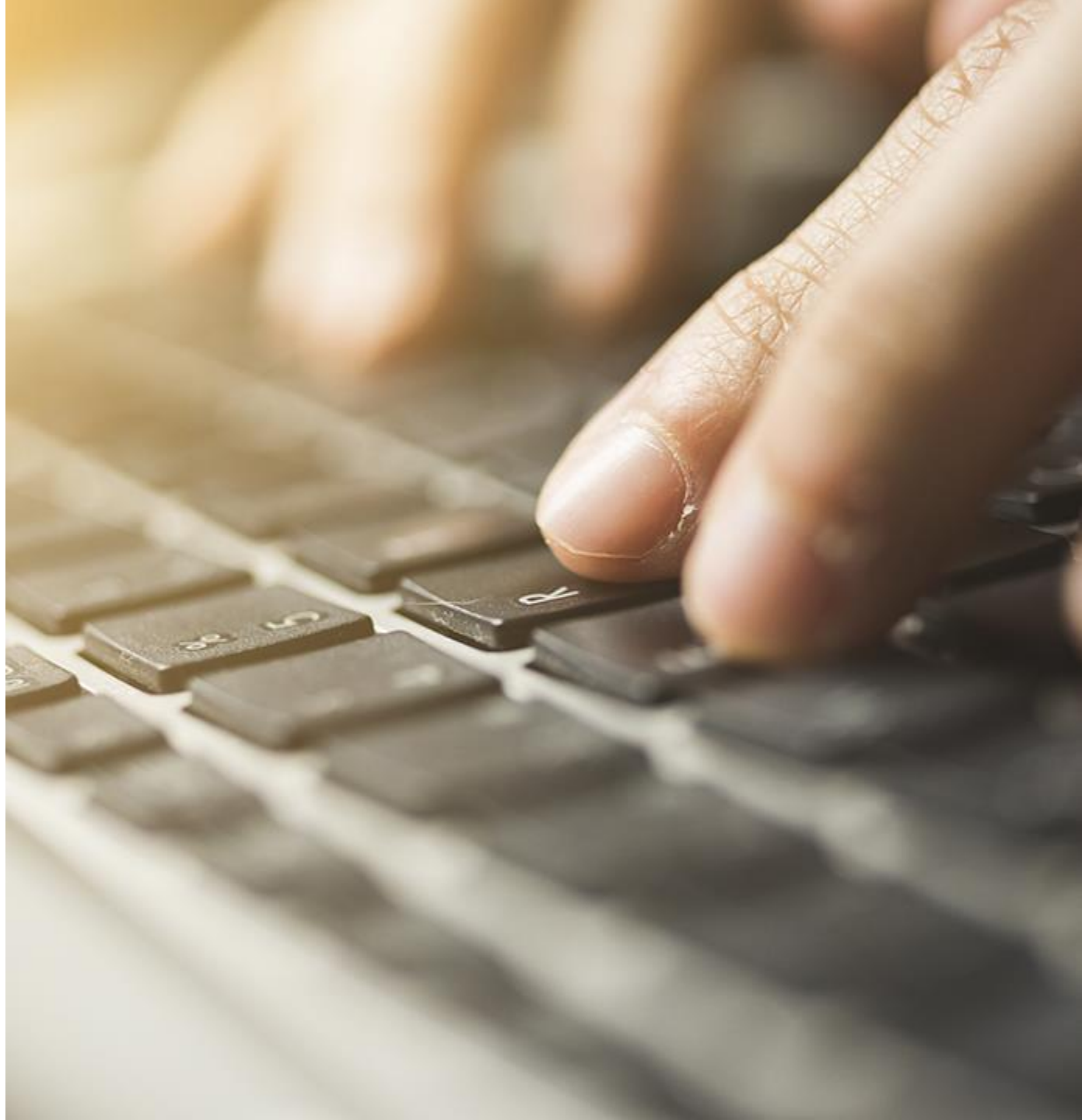
EXERCISES

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!