

Python for Economics

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Why Programming?

- ▶ Looking for Common language between Human and Machine
- ▶ Different Works, Different Languages
- ▶ Why Python?
 - Close to Human Language
 - Easily Connect to other Languages
 - General usage
 - Wide range of fields
 - Great Communication

Why Programming in Economics?

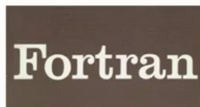
► Analysis of Economic Data

- High volume of generated data
- Impossibility of data management in software such as Excel
- Read data from an online database

► Quantitative Methods

- Influence of different mechanisms on an economic
- The complexity of economic issues facing economists
- Lack of analytical solutions to problems

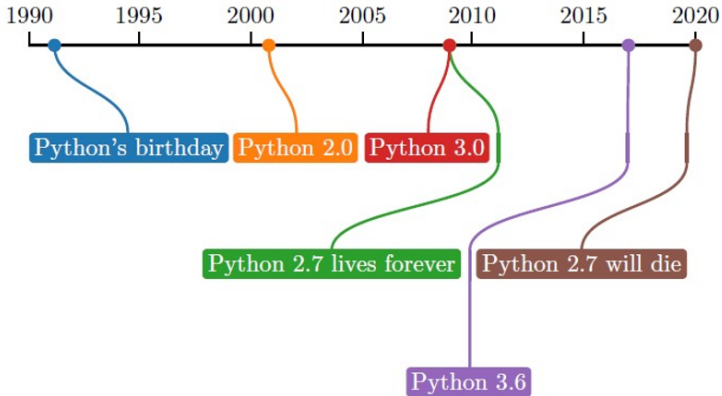
Programming Languages



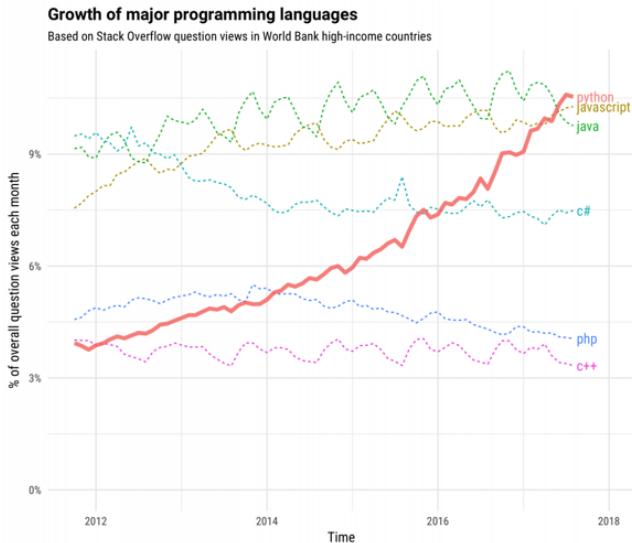
Comparing the way Python works with common programming languages

- ▶ C/C++ and Fortran:
 - Time-consuming coding
- ▶ MATLAB:
 - Lack of proper economic packages
 - Lack of design, efficiency compared to Python
 - Not open source
- ▶ R
 - Useful in statistics with high variety of packages
- ▶ Stata
- ▶ Julia

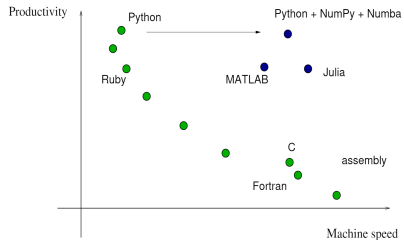
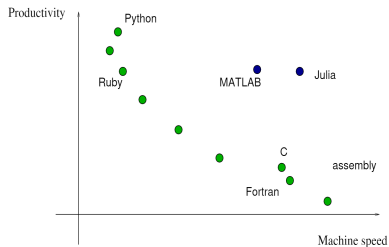
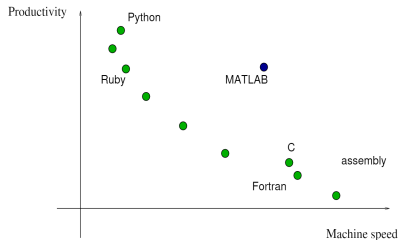
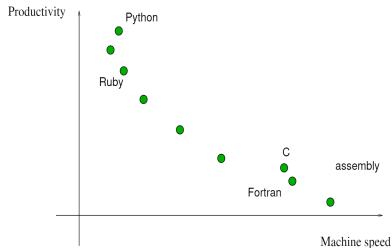
Overview of the Python development by versions and dates:



Python has become extremely popular



Trade-Offs



Course Content

- ▶ Python Setup
- ▶ Object and Data Structure Basics
- ▶ Python Statements
- ▶ Methods and Functions
- ▶ Modules, Packages
- ▶ Libraries
 - NumPy
 - Matplotlib
 - Pandas
 - SymPy and SciPy
 - ...
- ▶ Stata
- ▶ R Programming

How to Start?

- ▶ **Read, Read, Read! Write, Write, Write!**
- ▶ [GitHub](#) and [Stack Overflow](#)
- ▶ Editors
- ▶ [Anaconda](#)
- ▶ Search Skill

Thank you

- ANY QUESTION...?