Python for Economics

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Why Programming?

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?　　Why Python?　　Course Content　　How to Start?　　Thank you

Why Programming in Economics?

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
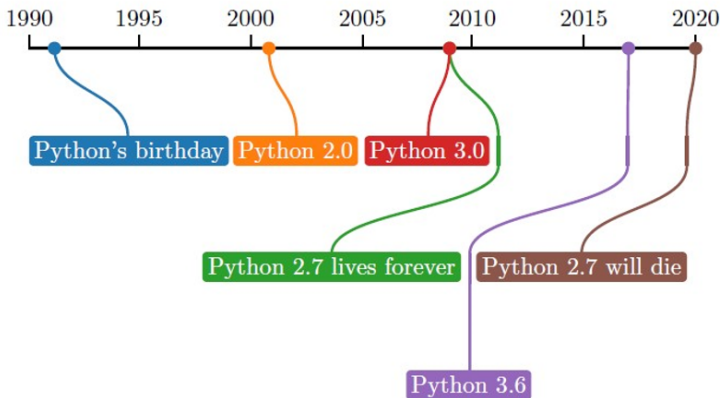 - Lack of analytical solutions to problems

Programming Languages
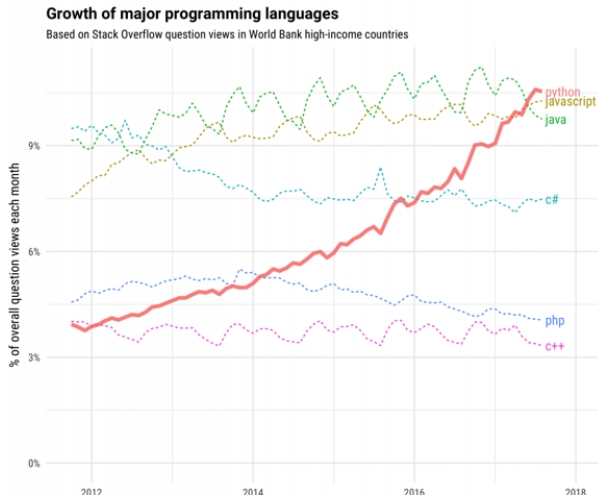
Programming Languages
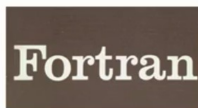
Comparing

Comparing the way Python works with common programming languages

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

Why Programming?	Why Python?	Course Content	How to Start?	Thank you
○	○	○	○	○
○	●			
○	○			

Python development

Overview of the Python development by versions and dates:

Popularity of Python

Python has become extremely popular

Growth of major programming languages
Based on Stack Overflow question views in World Bank high-income countries

Trade-Offs

Trade-Offs

Why Programming?	Why Python?	Course Content	How to Start?	Thank you
○	○	●	○	○
○	○			
○	○			
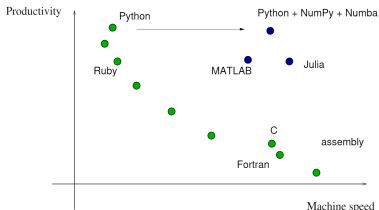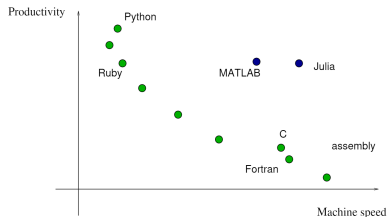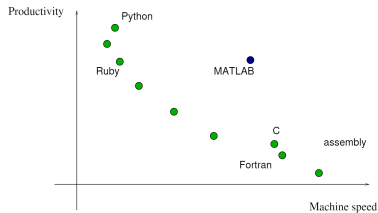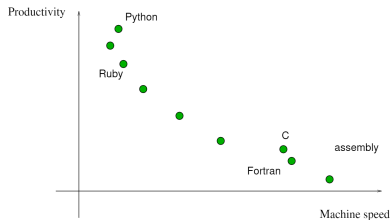
Course Content

Course Content

- ▶ Python Setup
- ▶ Object and Data Structure Basics
- ▶ Python Statements
- ▶ Methods and Functions
- ▶ Modules, Packages
- ▶ Libraries
  - NumPy
  - Pandas
  - ...

Why Programming?   Why Python?   Course Content   How to Start?   Thank you

How to Start?

How to Start?

- **Read, Read, Read! Write, Write, Write!**

- GitHub and Stack Overflow
- Editors
- Anaconda
- Search Skill

Thank you

- ANY QUESTION...?