Introduction to Python

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Information

- My research focuses on two areas: Political and Development Economics. In my research, I deal with tons of data and (lots of) text data -> programming with Python. That's why this course.
- Introduce yourself. What are your expectations? Why are you here? What kind of data you are currently using or plan to use?

Plan for this course

- Introduction to Python foundations

The team

- Arieda Muço: MucoA@ceu.edu. Office: Quellenstrasse, 51
- Adam Nasli (TA): adam.nasli@brokerchooser.com

Arieda

Adam

We encourage you to ask questions via Slack. When needed we'll set meetings via Zoom.

Grading

Final assessment will consist of the following:

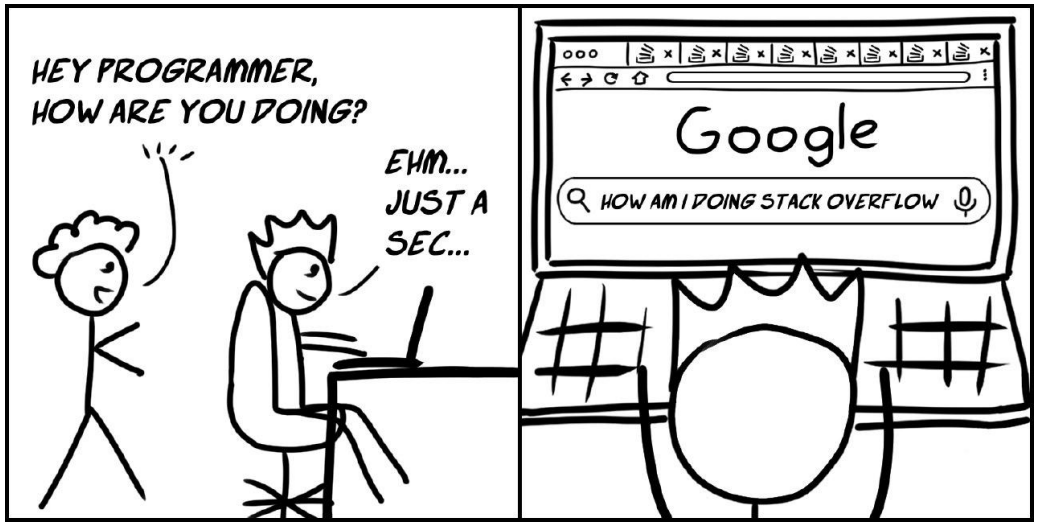
- **Quizzes in Class** (20% of final grade)
- **Problem Sets** (40% of final grade)
- **Individual Project** (40% of final grade) – On last 100 of class. Based only on material covered in class, quizzes and problem sets.
  I expect most cameras on. Experiment with virtual backgrounds.

Deadlines

- Past deadline submissions will get graded. You will be penalized
- Email for meetings, questions etc
- Emails/Questions: You will get a reply if you send an email but send it 24 hours before a deadline (no response otherwise)
- Slack will be our communication tool for this course
  - Post questions and answers in respective channels
  - Keep a close eye on channels on quizzes and assignments
  - Make sure you reply in thread when needed.
- We strongly encourage peer learning. Feel free to post in the Slack channel if you think some information is of common interest

Rules

- Ask questions and feel free to google
  - Don't feel bad about this. Even software developers spend a lot of their coding time googling programming related questions
  - Important to know how to read error messages
    - ★ or google them
  - Stack Overflow is a programmer's best friend


HEY PROGRAMMER,
HOW ARE YOU DOING?
EHM...
JUST A
SEC...
Google
HOW AM I DOING STACK OVERFLOW

Recommended Material

- Codecademy is the place to start
- Automate the Boring Stuff with Python and The Real Python are great sources
- A Shaw, Zed. "Learn Python the hard way"
- Al Sweigart. "Automate the Boring Stuff with Python"
- Allen B. Downey. "Think Python: How to Think Like a Computer Scientist"

A bit about Python

- Programming language intended for general-purpose high-level language
- Web development, scientific and numeric education, desktop graphical user interface, software development
- Free and open source
- You can do everything that you can do in a programming language
- Big community (Google, Youtube, Nasa...)
- High readability (more than R or C)
- Python was first released in early 1980
  - Python 2 in 2000 and Python 3 in 2008

Black Holes and Python

Annoying things in Python

- Python 3 is not backward compatible with Python 2
  - In this course we will use Python 3. Python 2 is not supported anymore
  - If you are starting a new project, do so in Python 3
- Pandas Library (more on this next time)
  - But very useful
- + some minor things we'll cover throughout the course
  - example: split() vs join()
    - sentence = "We will rock you!"
    - words = sentence.split(" ") but sentence = " ".join(words) (?)

Purpose of the course

- Programming in Python is (mildly put) very broad topics, and we will not be able to cover many(!) things
- Build strong foundations such that in the future you get confidence in starting to dig deeper into these topics