# Introduction to Python Objects and Expressions

## Lecture 0: Course Introduction

Daniel Kadyrov

# Agenda

1. Group Introduction

2. Course Downloads

**Fill out this survey**

https://forms.gle/VM3yhQr4FZrhaCXz6

- Learn the basics of Python programming including data structures, functions, and classes while utilizing industry standard programs and packages to develop, test, debug, and collaborate on projects
- Set the foundations of using Python for data science applications including:
  - Collecting, parsing, sanitizing and cleaning, standardizing, and exploring datasets
  - Generating visualizations including graphics, tables, and figures
  - Determine trends and report conclusions from analysis

# Course Information

## Assignments

- Daily assignments on the materials we learned in class. Most likely you will work on these assignments through the end of class and submit them at the beginning at the beginning of the next class
- There will be a final project that will be presented at the end of the semester that will be a culmination of the skills we learned in class

# Course Information

## Office Hours and Contact Information

- Office hours will be by appointment only
- Contact email: daniel.kadyrov@gmail.com

# Course Downloads

1. Git and GitHub
2. Python through PyEnv
3. Visual Studio Code

GitHub offers free accounts to students. It comes with unlimited public repositories and unlimited collaborators as well as other perks. You will need to verify your student status.

**Sign up here**

https://education.github.com/

Git is a way to manage your code and collaborate with others. It is a version control system that allows you to track changes to your code and revert back to previous versions if necessary. It also allows you to collaborate with others on the same code base.

**Download Git here**

https://git-scm.com/downloads

The coursework, including all documents, assignments, and code will be hosted on GitHub. You will need to fork the repository to your own GitHub account. This will allow you to make changes to the code without affecting the original code. You will also be able to download the code, through cloning, to your local machine.

**Course Repository**

https://github.com/dkadyrov/introductiontopython

To fork the repository, go to the repository in your browser and click the fork button in the top right corner. This will create a copy of the repository in your GitHub account. To clone the repository, go to the repository in your browser and click the green code button. Copy the link.

In terminal, you can navigate to the directory you want to clone the repository to through the `cd` command. Then, type `git clone <link>` where `<link>` is the link you copied from the repository. This will create a copy of the repository on your local machine. This is demonstrated in the following code block:

```
cd Documents
cd "Columbia Summer Course"
git clone <link>
```

Download and install Python for your operating system (OS) using the following link:
https://www.python.org/downloads/
You can also utilize managers such as Anaconda and PyEnv to manage your Python installations.

# Visual Studio Code

1. Download and install Visual Studio Code
2. Install the Python extension
3. Choose your theme!