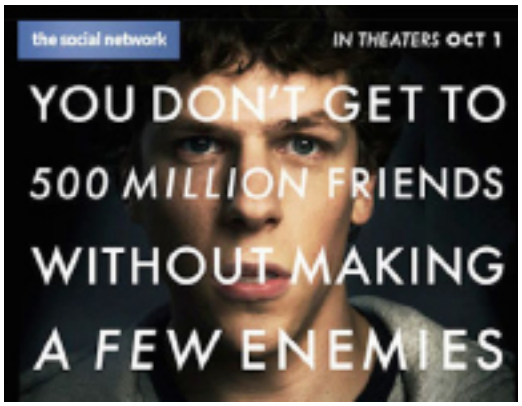
SOCIAL NETWORK

LANGUAGE: Python

TOPICS: Classes, Methods, Attributes, Data



OVERVIEW

In this project you are going to create a Social Network. Your network will have users and those users will be able to connect with one another. To do this, you will apply what you've learned about Object Oriented Programming

INSTRUCTIONS

- **Part 1:** Create a User class with...
  A. The basic attributes a user should have (name, id, connections).
  B. All the methods for editing the user attributes.
- **Part 2:** Create a Network class with...
  A. The basic attributes that a network should have (set of users).
  B. All the methods for editing the network attributes.
- **Part 3:** A main( ) program that...
  A. Allows a user to input information from the command line.
  B. Accurately handles errors.
  C. Controls program flow.

SOCIAL NETWORK

REQUIREMENTS

- Accept user input via the command line.
- Be able to add a user.
- Be able to add a connection.
- Print a list of all users.
- Print all of the connections for a given user.

EXTENSIONS

- Create a visualization of your network using the Turtle Library from week 2.
- Create a visualization of your network using **NetworkX** or similar library.
- Write a network method that finds the shortest path between two users along their connections. Print this path.
    A. E.g. Sarah is connected to Alex who is connected to Bertha who is connected to Gennie. The distance from Sarah to Gennie is 3 connections.
    B. Use **Dijkstra's Algorithm.**
- Add a method to your network class that removes a user.
    A. Add commands for a user to export the social network to a file or to import a social network from a file.