CS21: INTRODUCTION TO COMPUTER SCIENCE

Prof. Mathieson
Fall 2017
Swarthmore College
Outline Nov 20:

• Faster than $O(n^2)$ sorting
• Begin: writing our own classes
• Pie class example
• Student class example

Notes

• Lab 9 due Monday after Thanksgiving
• Office hours: 3-5pm **Tuesday** (for this week)
• There is lab this week! (Tues/Wed)
• **Ninja sessions**: Tues this week, Sunday after Thanksgiving
Classes
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- We can use/modify class instances using methods
  \[
  \text{dot}.\text{move}(dx,dy)
  \]
Motivation for classes: LOLs

- List-of-lists let us keep track of things that should be “together”, but they get cumbersome to modify:

```python
>>> pie_lst = [['apple', 8], ['cherry', 8], ['chocolate', 8]]

>>> pie_lst[2][1] -= 1

>>> pie_lst
[['apple', 8], ['cherry', 8], ['chocolate', 7]]
```