CS150 - Intro to Object Oriented Programming

Syllabus overview
Data Representations

What types of data does a computer store?

- Text
- Videos
- Photos
- Music
- Programs
- Games

0's and 1's

Interpret
Algorithm vs program

Algorithm: A step by step procedure for solving a problem.
- Tying a shoe
- Recipe
- Sorting a list

Program: Precise sequence of instructions enabling a computer to solve a problem.
0's and 1's
Two "big" categories

High Level: More "English-like", easier to read and write in

Ex: Visual Basic, QBasic, Java, C++, Python

Low Level: Machine code, entirely OS and processor-dependent, unique language for every processor

via interpreter or compiler
Object Oriented Programming

Definition: Paradigm which models data and operations as paired objects

So we create objects and different objects have different possible operations
Example: Student class

Attributes:
- Name
- Email
- GPA
- Address
- Major
- Classes
- Grades
- Schedule

Methods:
- change Major
- addClass
- dropClass
- enter Grade (class, value)
Bank Account:

Attributes:
- Account #
- Balance
- Interest
- History: debits/credits
- User info

Methods:
- debit
- credit
- change User
- add User
Logging in:

Next time