Week 15, Lecture 2

Today's lecture will just focus on two examples of using classes.

We begin by reviewing the MSD (many-sided die) class from the previous lecture, defining instance variables, methods and class attributes (which are simply instance variables and methods).

Next, we present a simple "data processing" example, using a class to define Student objects. A data file contains a series of lines, where each line contains the name of a student and a couple of numbers that can be used to compute the gpa of that student. Once the class is defined, the application reads in one line at a time and builds a student object (with the aid of a helper function), and then determines the students with the highest and lowest gpas.

The next example concerns two classes (a Die class and a Player class) that help us run an application that actually plays a game of craps. This is an old game involving tosses of a pair of 6-sided dice. You'll find the game described on Wikipedia, and can also find sites that play this game on the web. After describing the rules of the game we build a Die class and a Player class and then actually play the game using simple application code. You'll also see how "docstrings" are used when we write

classes.