## CSc 110, Autumn 2017

Lecture 33: 2D Structures

Adapted from slides by Marty Stepp and Stuart Reges



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## Exercise

- We would like to store data for the class so that we can:
  - Access the entire class list easily
  - Access a section list easily

- What structure is appropriate for this problem?
  - Sometimes it can be helpful to store a structure inside another structure

## What is the right structure?

- You want to store a bunch of colors so you can later choose one at random.
- Batting order of a baseball team.
- Students names and their grades on a project.
- Friends names and their phone numbers
- Height, width and location of a sports field.
- Movies a person has watched.
- Items in a shopping cart.
- A student's grades.

## What is the right structure?

- The grades for all students in a class
- All books in a store arranged by category
- Many recipes each containing many steps
- Phone numbers that have been called this month on a phone plan divided by area and country code for billing simplicity