



# INTRODUCTION TO DATA STRUCTURES

Data structures contain and organize data



# DATA STRUCTURES

- Containers
  - Contain other data and allow it to be manipulated with one name
  - Data structures are like a basket
- Organizers
  - Organize data for efficient access
  - Characterized by the supported operations: insert, search, remove, visit
- “Data Structures and Algorithms” (CS 2420)



# TYPE SPECIFIERS

- The name of a programmer-created data structure is a data type
- Data types are used to define variables or objects
- Examples:
  - `int counter;`
  - `struct foo { ... };`
  - `foo my_foo;`
  - `class bar;`
  - `bar my_bar;`