COP 3540 Data Structures with OOP

Chapter 5
Linked Lists

Different Storage Structure

- Arrays:
  - Some real advantages and disadvantages depending on whether or not the array was sorted AND what you wanted to do
    - Insert
    - Delete
    - Search…
- Second most commonly used data storage structure after arrays: the **Linked List**.
  - Extremely versatile.
  - Will discuss strengths and weaknesses

Links

- “In a linked list, each data item is embedded in a link.
- (I sometimes call these nodes or cells).
- **(You may not** use the link in the API for link operations in your program assignments.)

- Each link object contains
  - ***data*** – (any kind; any amount) and a
  - ***reference*** (points to the next item in the list).