

List/Arrays

Lists:

- ADT (<https://docs.oracle.com/javase/8/docs/api/java/util/List.html>)
- A list is an ordered collection or a sequence
- Allows us to read and modify values at specific locations
- Allows adding and removing elements
- Resizable
 - List can be represented as an array or a linked list

Arrays:

- An array is a fixed size collection of elements of the same type
- Stored contiguously in memory
- Length of an array is established when the array is created, after creation, its length is fixed
- Strengths:
 - Quick access to values if you know the location, efficiently add to rear if there's space
- Weakness:
 - Cannot change in size, cannot efficiently add elements in the middle of the array or in the front of the array

ArrayList (JFC <https://docs.oracle.com/javase/8/docs/api/java/util/ArrayList.html>):

- Array implementation of the List interface
 - Resizable, add and remove elements
- Strengths:
 - Quick access to values if you know the location
 - Change in size if need too
 - Efficiently add elements to the rear of the array
- Weakness:
 - Still cannot add elements in the middle of the array or in the front of the array