U6S2M1 - Collection Class Objects Illustrated

	[0]	[1]	[2]	[3]	[4]
Array	Element	Element	Element	Element	Element
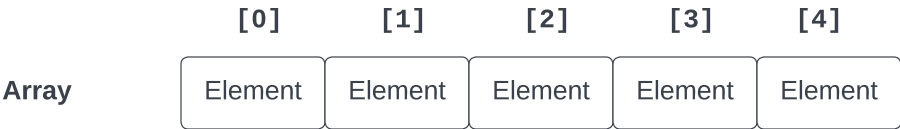
Array is fixed size;
Size must known at instantantiation;
Cannot add or remove element;
Access is by index [ ]

	.get(0)	.get(1)	.get(2)	.get(3)	.get(4)
ArrayList	Element	Element	Element	Element	Element
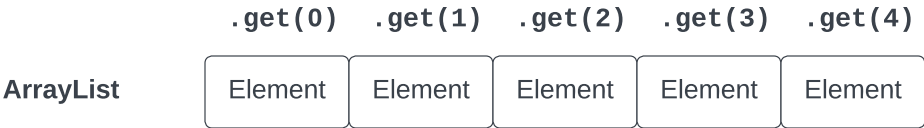
ArrayList is variable size;
Add or remove elements;
Access via get() , add(), remove() methods;
Somewhat inefficient when add/remove elements

LinkedList

| Element (Node) | Element (Node) | Element (Node) | Element (Node) | Element (Node) |

Head of List

Tail of List
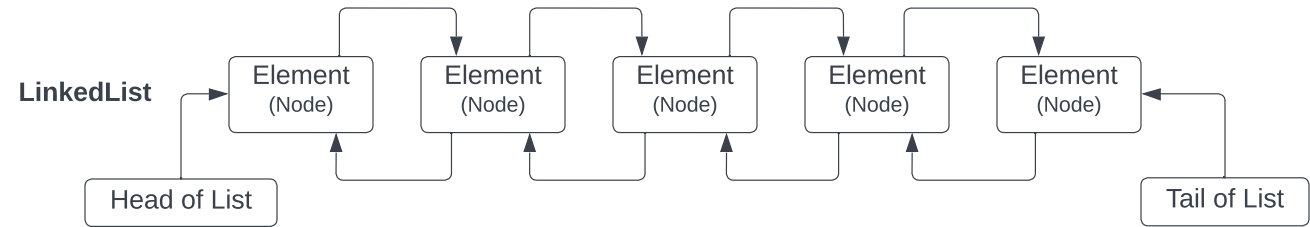
LinkedList is variable size;
Add/remove elements
Access via add(), addFirst(), addLast(), getFirst(), getLast(),
get(), listIterator
More efficient that ArrayList, Stack when add/remove elements

Queue	Element	Element	Element	Element	Element

Queue is variable size;
Only add elements to end - **add()**
Only retrieve elements from the beginning - **poll()**
FIFO (First-In, First-Out) data structure
Once an element is retrieved, it is removed from the Queue

Stack

| Element |
| Element |
| Element |
| Element |
| Element |

Stack is variable size;
Only add elements to the top - **push()**;
Only retrieve elements from the top - **pop()**;
LIFO (Last-In, First-Out) data structure
Once an element is retrieved, it is removed from the Stack