Basic Linear Data Structures
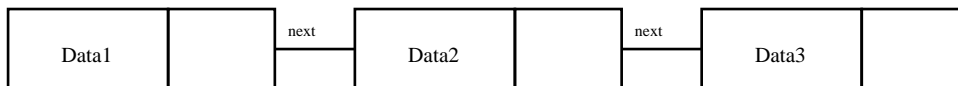
1. Array

• Fixed size.
• Stores elements in continuous memory locations.
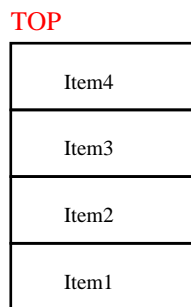
A[0]	A[1]	A[2]	A[3]	A[4]
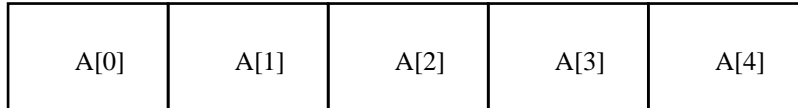
2. Linked List

• Collection of nodes connected using pointers.
• Each node has data and address of next node.

Data1		next	Data2		next	Data3	

3. Stack

• Linear data structure.
• Follows LIFO (Last In, First Out).

TOP

Item4
Item3
Item2
Item1

4. Queue

• Linear data structure.
• Follows FIFO (First In, First Out).

Front →   ← Rear

Q1	Q2	Q3	Q4