structures.md 2025-01-20

1. Vector / Dynamic Array

- with allocator
- Iterators:
 - Iterator
 - Const Iterator
 - Reverse Iterator

2. Singly Linked List

- Structure:
 - Linked Nodes (with next pointer)
- Iterators:
 - Iterator
 - Const Iterator

3. Doubly Linked List

- Structure:
 - Linked Nodes (with both previous and next pointers)
- Iterators:
 - Iterator
 - Const Iterator

4. Stack

- Structure:
 - 4.1 Linked Implementation
 - 4.2 Array Implementation
 - 4.3 Template Container Implementation

5. Queue

- Structure:
 - 5.1 Linked Implementation
 - o 5.2 Array Implementation
 - 5.3 Template Container Implementation

6. Deque

- Structure:
 - o 6.1 Linked Implementation
 - 6.2 Array Implementation
- Iterators:
 - Iterator
 - Const Iterator

7. Set/Map

structures.md 2025-01-20

- Structure:
 - Binary Search Tree
- Iterators:
 - Const Iterator
- Additional Features:
 - Custom Comparator

8. Priority Queue

- Structure:
 - o Binary Heap

9. Unordered Map/Set

- Structure:
 - Separate Chaining
- Iterators:
 - Const Iterator
- Additional Features:
 - o Template Hasher

10. Unordered Map/Set (Preserves Insertion Order)

- Structure:
 - Separate Chaining
- Iterators:
 - Const Iterator
- Additional Features:
 - o Template Hasher

11. Unordered Map/Set (Linear Probing)

- Structure:
 - Linear Probing
- Iterators:
 - Const Iterator
- Additional Features:
 - o Template Hasher

12. Disjoint Set

- Structure:
 - o Tree with parent array. Path compression.