**1. Stack Implementation**

* Using Arrays
* Using Linked List
* Built-in Java Stack Class

**2. Stack Problems**

* **Balanced Parentheses**: Check if an expression has balanced brackets.
* **Expression Evaluation**:
  + Infix to Postfix conversion
  + Postfix Evaluation
  + Prefix Evaluation
* **Next Greater Element**: Find the next greater element for each element in an array.
* **Stock Span Problem**: Find how many consecutive smaller prices are before the current price.
* **Largest Rectangle in Histogram**: Find the largest rectangle area in a histogram.

**3. Queue Implementation**

* **FIFO Queue** using Array & Linked List
* **Circular Queue** Implementation
* **Priority Queue** (Min Heap & Max Heap)

**4. Deque (Double-Ended Queue)**

* Implementing **Deque** using Array & Linked List
* Applications: Sliding Window Maximum, Maximum of all subarrays of size k

**5. Queue-Based Problems**

* **First Non-Repeating Character in a Stream**
* **LRU (Least Recently Used) Cache Implementation**
* **Generate Binary Numbers using Queue**
* **Reverse a Queue using Recursion**
* **Interleave the First and Second Half of a Queue**