

## Ceng 241 Lab Work 5

**Classes and Data Abstraction IV:** Dynamic Memory Management with Operators new and delete

Implement a **Deque** class, where a queue is a collection of zero or more elements. For this exercise, the elements should be **ints**. The public interface consists of methods to

- Create a Deque
- Add a new element to a Deque: an element is added to a deque at its rear or at its front
- Remove an element from a Deque: an element is removed from a deque at its front or at its rear
- Enumerate the elements in the Deque
- Compute the intersection of two Deque's D1 and D2, that is, the set of elements that belong to both D1 and D2
- Compute the union of two Deque's D1 and D2, that is, the set of elements that belong to D1 or D2 or both.
- Compute the difference of two Deque's D1 and D2, that is, the set of elements that belong to D1 but not to D2