## Arab Academy for Science, Technology, and Maritime Transport

## **College of Computing and Information Technology**

Course Title: Data Structures and Algorithms

Course Code: CS212

Lecturer : Dr. Nahla A. Belal

## Sheet # (2): Double Linked List and Circular Linked List

Write the appropriate algorithms to perform the following:

- 1. Insert, Delete, and Display the element at position m in a double linked list.
- 2. Swap the first and last nodes in a double linked list (Do Not Swap Data).
- 3. Reverse a double linked list in place.
- 4. Check if a circular double linked list is sorted or not.
- 5. Display all elements above the average in a circular double linked list.
- 6. Insert an element in a sorted circular double linked list.
- 7. Display all prime elements in a circular double linked list.
- 8. Check if a circular double linked list is in mirror format or not.
- 9. Dispose a double linked list.