



**Arab Academy for Science and Technology and Maritime
Transport**
College of Computing and Information Technology



Course Title : Data Structures
Lecturer : Dr. Yasser El-Sonbaty

Course Code: CS212

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.