WEEK-4 | MANIPULATION WITH SINGLY LINKED LIST

29 August – 4 Sept

Lab A OR B

(Lab Evaluation in another lab)

- 1. Write a program in C to create a single linked list of 10 nodes and find the occurrence of an element in the linked list
- 2. Write a program in C to insert an element at
 - a. Beginning of the linked list.
 - b. End of the linked list.
- 3. c. Specific location in a linked list.
- 4. Write a C function that moves last element to front in a given Singly Linked List. For example, if the given Linked List is 1->2->3->4->5, then the function should change the list to 5->1->2->3->4.
- 5. Write a program in C which reads a name and generates the link list of the characters in that name. Later it removes the vowels from the link list and displays the modified link list
- 6. Write a program in C to count the number of nodes in the linked list and find out the max and min valued node.

7.

A. Create a Linked list such that it can be used to represent a polynomial function. The data in the node represents the coefficient of the polynomial function. The position represents the power value.

Example: Input: 1 -3 6 2

Output:

B. Reverse the representation such that the first value of the original linked list is associated with the highest power value:

Example: Input: 1 -3 6 2 Output: x3 -3x2+6x1+2x0 Circular Linked List