

1. There are two linked lists A and B containing the following data:
A: 3, 7, 10, 15, 16, 9, 22, 17, 32
B: 16, 2, 9, 13, 47, 8, 10, 1, 28
WAP to create a linked list C that contains only those elements that are common in linked list A and B and also create a linked list D which contains all elements of A as well as B ensuring that there is no repetition of elements..
2. Split a linked list into two lists where each list contains alternate elements from it
Given a linked list of integers, split it into two lists containing alternating elements from the original list.
For example, if the original list is {1, 2, 3, 4, 5}, then one sublist should be {1, 3, 5} and the other should be {2, 4}. The elements in the output lists may be in any order. i.e., the sublists can be {5, 3, 1} and {4, 2} for input list {1, 2, 3, 4, 5}.
3. Merge two sorted linked lists into one. Write a function that takes two lists, each of which is sorted in increasing order, and merges the two into a single list in increasing order, and returns it. For example, consider lists a = {1, 3, 5, 7} and b = {2, 4, 6}. Merging them should yield the list {1, 2, 3, 4, 5, 6, 7}.
4. Arithmetic expression solving using linklist ($ax^2 + bx + c$)
5. Write a menu driven program that uses functions to perform the following operations on a doubly linked list i) Creation ii) Insertion iii) Deletion iv) Traversal.
6. Write a program to interchange the value of the first element with the last element, second element with second last element, so on of a doubly linked list.
7. Given a doubly linked list, sort it using the merge sort algorithm.