# Data Structures and Algorithms Lab
## Assignment-1

1. Write a menu-driven program in C to perform the following operations in an integer array allocated memory dynamically. The list may grow or shrink compared to the initial allocation as and when required. Multiple operations may be performed on the existing list without recompiling/re-executing the program. The individual operation should be implemented using a single function.

   List of operations:

   a) *Create*
   b) *Display the entire list*
   c) *Count (total number of elements in the list)*
   d) *Reverse the list (reversed list should be stored in the same array)*
   e) *Index of a given element (all indices if there are duplicate entries)*
   f) *Indexed element*
   g) *Insert*
   h) *Delete*
   i) *Merge*
   j) *Split*
   k) *Sort*