Assignment 3 (DS)

Q1. Write a C/C++ program to implement below mentioned Searching and Sorting Techniques.
(a) Bubble Sort
(b) Selection Sort
(c) Insertion Sort

Q2. Write a C/C++ program to implement single linked list. Implement below metioned functions. Apply all required condition check & validation like list empty or not, while inserting/deleting by position validate the position.
a)insertAtEnd   b) insertAtBeg c) insertAtPos   d) displayList
e)listNodeCount   f) deleteFromEnd   g) deleteFromBeg
h)deleteFromPos   i) deleteByElement   j) reverseDisplay
k)freeAllNode   l) reverseList   m)sortedList

Q3. Write a C/C++ program to implement single linked list in sorted order. Implement below metioned functions. Apply all required condition check & validation like list empty or not, while inserting/deleting by position validate the position. Implement a policy for duplicate value input.
a)insert   b) displayList c)listNodeCount d) deleteFromEnd
e) deleteFromBeg f)deleteFromPos   g) reverseDisplay

Q4. Write a C/C++ program to implement single linked list to store Student Information (StudentName and StudentPRN).
Implement below metioned functions. Apply all required condition check & validation like list empty or not, while inserting/deleting by position validate the position.
a)insertAtEnd   b) insertAtBeg c) insertAtPos   d) displayList
e)listNodeCount   f) deleteFromEnd   g) deleteFromBeg
h)deleteFromPos   i) deleteByElement   j) reverseDisplay
k)freeAllNode