National University of Computer and Emerging Sciences

Laboratory Manual

for

Data Structures Lab

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Section	BSE-3A
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Objectives:

In this lab, students will practice:

1. array based List

Question 1: Listclass

list

{

```
int * array;
int maxsize;   // Maximum size of list
int listsize;  // Current # of list items
int currposition; // Position of current element
```

public:

1. list(int size); // that initialize array
2. void insertatstart(int n); // insert element at start of list
3. void insertatend(int n); // insert element at end of list
4. void deleteatstart(); // it delete element at start of list
5. void deleteatend(); // it delete element at end of list
6. voidprint(); // it print element
7. int size() ; //it return size of list
8. void insertafter(int val,int key) ;// It should enter the new Node with the value key, after the first occurrence of value val. If not found insert at end.
9. Return maximum element of list `int` FindMax() `const`;
10. Void prev() ; // move left
11. Void next(); // move right
12. Int currpos(): // return index of currposition of list

}

Create a suitable main function to test the above functions.