**Subject Code:** KCS351

**Subject Name:** Data Structure using C Lab

**Semester:** III

**Session:** 2020-21

**LAB-2**

**List Of Programs**

1. WAP to insert an element in an array.
2. WAP to delete an element from array, where the position of element to be deleted is given by user.

**Program Implementation in C:**

1. A simple program to insert an element in an array.

#include<stdio.h>

int main()

{

printf("\n\n\t\tStudytonight - Best place to learn\n\n\n");

int array[100], position, c, n, value;

printf("\n\nEnter number of elements in array:");

scanf("%d", &n);

printf("\n\nEnter %d elements\n", n);

for(c = 0; c < n; c++)

scanf("%d", &array[c]);

printf("\n\nEnter the location where you want to insert new element: ");

scanf("%d", &position);

printf("\n\nEnter the value to insert: ");

scanf("%d", &value);

// shifting the elements from (position to n) to right

for(c = n-1; c >= position-1; c--)

array[c+1] = array[c];

array[position - 1] = value; // inserting the given value

printf("\n\nResultant array is: ");

/\*

the array size gets increased by 1

after insertion of the element

\*/

for(c = 0; c <= n; c++)

printf("%d ", array[c]);

printf("\n\n\t\t\tCoding is Fun !\n\n\n");

return 0;

}

2. A simple program to delete an element from array, where the position of element to be deleted is given by user.

#include<stdio.h>

int main()

{

printf("\n\n\t\tStudytonight - Best place to learn\n\n\n");

int array[100], position, c, n;

printf("\n\nEnter number of elements in array:");

scanf("%d", &n);

printf("\n\nEnter %d elements\n", n);

for(c = 0; c < n; c++)

scanf("%d", &array[c]);

printf("\n\nEnter the location where you want to delete element from: ");

scanf("%d", &position);

if(position >= n+1)

printf("\n\nDeletion not possible\n\n");

else

// updating the locations with next elements

for(c = position-1; c < n-1; c++)

array[c] = array[c+1];

printf("\n\nResultant array is: ");

/\*

the array size gets reduced by 1

after deletion of the element

\*/

for(c = 0; c < n-1; c++)

printf("%d ", array[c]);

printf("\n\n\t\t\tCoding is Fun !\n\n\n");

return 0;

}