LABORATORY REPORT

for

COURSE NAME: Course Name

LAB COURSE CODE: Subject code

SEMESTER: Semester

Of

YOUR NAME

Roll No: XXX

Registration No: XXX

Of 2022-2023

in

DEPERTMENT OF COMPUTER SCIENCE & ENGINEERING

Accredited by

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Table of Contents

- **File Name:** Lab_Day-1_Prog1.c
- **Program Name:** Write a Program in C to implement the following operation in an array: *Insert an element in an array*
- **Source Code:**

```c
#include <stdio.h>
main()
{
        int x,pos,i;
        int n=5;
        int arr[10]={1,2,3,4,5};
        printf("Enter a number to be inserted: ");
        scanf("%d",&x);
        printf("Enter the position: ");
        scanf("%d",&pos);

        // print the original array
        printf("Array before insertion: ");
        for (i = 0; i < n; i++)
        {
                printf("%d ", arr[i]);
        }
        printf("\n");

        // shift elements forward
        for (i = n-1; i >= pos; i--)
        {
                arr[i] = arr[i - 1];
        }

        // insert x at pos
        arr[pos - 1] = x;

        // print the updated array
        printf("Array after insertion of %d: ",x);
        for (i = 0; i < n; i++)
        {
                printf("%d ", arr[i]);
        }
        printf("\n");
}
```
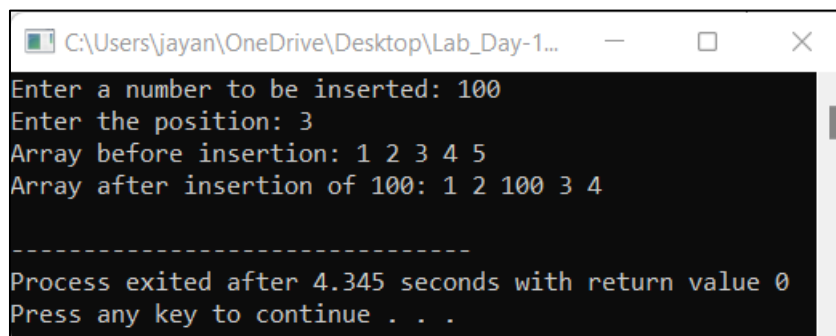
- **Output:**

```
C:\Users\jayan\OneDrive\Desktop\Lab_Day-1...    —    □    ×
Enter a number to be inserted: 100
Enter the position: 3
Array before insertion: 1 2 3 4 5
Array after insertion of 100: 1 2 100 3 4

--------------------------------
Process exited after 4.345 seconds with return value 0
Press any key to continue . . .
```