

// 7. Write a C program to implement Array operations such as Insert, Delete and Display

// INSERTION ;

```
#include<stdio.h>
```

```
int main()
```

```
{
```

```
int a[100],n,s,i;
```

```
    printf("Enter size of array:\n");
```

```
    scanf("%d",&n);
```

```
    printf("Enter Elements into array:\n");
```

```
    for(i=0;i<n;i++)
```

```
        scanf("%d",&a[i]);
```

```
    printf("Enter the element to insert:");
```

```
    scanf("%d",&s);
```

```
    printf("Array Elements Before insertion:\n");
```

```
    for(i=0;i<n;i++)
```

```
        printf("%d\t",a[i]);
```

```
    for(i=n;i>=0;i--)
```

```
        a[i]=a[i-1];
```

```
    a[0]=s;
```

```
    printf("\nAfter Inserting:\n");
```

```
    for(i=0;i<=n;i++)
```

```
        printf("%d\t",a[i]);
```

```
    return 0;
```

```
}
```

The screenshot displays a C program for array insertion. The source code is written in Dev-C++ and includes standard input/output headers. It prompts the user for the array size, then for each element. After inserting a new element at the beginning (index 0), it shifts all existing elements one position to the right and prints the updated array. The execution output shows the user entering a size of 5, followed by elements 2, 9, 4, 9, and 3. The element 10 is then inserted at the beginning, resulting in the array: 10, 2, 9, 4, 9, 3.

```
1 // 7. Write a C program to implement Array operations such as Insert, Delete and Display
2 #include<stdio.h>
3 int main()
4 {
5     int a[100],n,s,i;
6     printf("Enter size of array:\n");
7     scanf("%d",&n);
8     printf("Enter Elements into array:\n");
9     for(i=0;i<n;i++)
10         scanf("%d",&a[i]);
11     printf("Enter the element to insert:");
12     scanf("%d",&s);
13     printf("Array Elements Before insertion:\n");
14     for(i=0;i<n;i++)
15         printf("%d\t",a[i]);
16     for(i=n;i>=0;i--)
17         a[i]=a[i-1];
18     a[0]=s;
19     printf("\nAfter Inserting:\n");
20     for(i=0;i<=n;i++)
21         printf("%d\t",a[i]);
22     return 0;
23 }
24
25
```

Execution Output:

```
Enter size of array:
5
Enter Elements into array:
2
9
4
9
3
Enter the element to insert:10
Array Elements Before insertion:
2 9 4 9 3
After Inserting:
10 2 9 4 9 3
-----
Process exited after 26.21 seconds with return value 0
Press any key to continue . . .
```

```

// DELETION;
#include<stdio.h>
int main()
{
    int n,array[5],i;
    printf("\n enter the number of array elements:");
    scanf("%d",&n);
    printf("\n enter the %d elements:",n);
    for(i=0;i<n;i++)
        scanf("%d",&array[i]);
    if(i==n-1)
        printf("\n array full");
    else
    {
        array[n-1]=0;
        n=n-1;
    }
    printf("\nArray elements after deletion: ");
    for(i=0;i<n;i++)
        printf("%d\t",array[i]);
    return 0;
}

```

The screenshot shows a C++ IDE with the following code in the editor:

```

1 #include<stdio.h>
2 int main()
3 {
4     int n,array[5],i;
5     printf("\n enter the number of array elements:");
6     scanf("%d",&n);
7     printf("\n enter the %d elements:",n);
8     for(i=0;i<n;i++)
9         scanf("%d",&array[i]);
10    if(i==n-1)
11        printf("\n array full");
12    else
13    {
14        array[n-1]=0;
15        n=n-1;
16    }
17    printf("\nArray elements after deletion: ");
18    for(i=0;i<n;i++)
19        printf("%d\t",array[i]);
20    return 0;
21 }

```

The output window displays the following text:

```

enter the number of array elements:4
enter the 4 elements:1
2
3
4
Array elements after deletion: 1    2    3
.....
Process exited after 16.94 seconds with return value 0
Press any key to continue . . .

```