```c
//Insertion in array
#include<stdio.h>
void main()
{
    int arr[25],i,j,size,pos,newval;
    printf("Size of array:");scanf("%d",&size);
    for(i=0;i<size;i++)
    {
        printf("Element[%d]:",i+1);
        scanf("%d",&arr[i]);
    }
    printf("Enter value to be inserted:");scanf("%d",&newval);
    printf("At what position:");scanf("%d",&pos);
    for(i=size-1;i>=pos-1;i--)
    {
        arr[i+1]=arr[i];
    }
    arr[pos-1]=newval;size=size+1;
    printf("New array after Insertion\n");
    for(i=0;i<size;i++)
        printf("Element[%d]:%d\n",i+1,arr[i]);
}
spsingh@DESKTOP:~$ arrinst
Size of array:5
Element[1]:12
Element[2]:34
Element[3]:56
Element[4]:67
Element[5]:78
Enter value to be inserted:11
At what position:3
New array after Insertion
Element[1]:12
Element[2]:34
Element[3]:11
Element[4]:56
Element[5]:67
Element[6]:78
```

```c
//Deletion in array
#include<stdio.h>
void main()
{
    int arr[25],i,j,size,pos;
    printf("Size of array:");scanf("%d",&size);
    for(i=0;i<size;i++)
    {
        printf("Element[%d]:",i+1);
        scanf("%d",&arr[i]);
    }
    printf("Which element to be deleted:");scanf("%d",&pos);
    for(i=pos-1;i<size-1;i++)
    {
        arr[i]=arr[i+1];
    }
    size=size-1;
    printf("New array after Element Deletion\n");
    for(i=0;i<size;i++)
        printf("Element[%d]:%d\n",i+1,arr[i]);
}
spsingh@DESKTOP:~$ arrdel
Size of array:5
Element[1]:11
Element[2]:22
Element[3]:33
Element[4]:44
Element[5]:55
Which element to be deleted:2
New array after Element Deletion
Element[1]:11
Element[2]:33
Element[3]:44
Element[4]:55
```

```c
//Sorting of array
#include<stdio.h>
void main()
{
    int arr[25],i,j,size,sv,si,temp;
    printf("Size of array:");scanf("%d",&size);
    for(i=0;i<size;i++)
    {
        printf("Element[%d]:",i+1);
        scanf("%d",&arr[i]);
    }
    for(i=0;i<size-1;i++)
    {
        sv=arr[i];
        si=i;
        for(j=i+1;j<size;j++)
        {
            if(sv>arr[j])
            {
                sv=arr[j];
                si=j;
            }
        }
        temp=sv;
        arr[si]=arr[i];
        arr[i]=temp;
    }
    printf("New array after sorting\n");
    for(i=0;i<size;i++)
        printf("Element[%d]:%d\n",i+1,arr[i]);
}
spsingh@DESKTOP-N24FSAP:~$ selectsort
Size of array:6
Element[1]:77
Element[2]:44
Element[3]:88
Element[4]:2
Element[5]:6
```

Element[6]:9
New array after sorting
Element[1]:2
Element[2]:6
Element[3]:9
Element[4]:44
Element[5]:77
Element[6]:88

Programming problems on 1-D array
1. Input and display array elements
2. Sum of all array elements
3. Find second largest element in array
4. Copy one array to another
5. Insert new element in array
6. Delete an element from array
7. Find frequency of array elements
8. Merge two array to third array
9. Delete duplicate elements from array
10. Reverse an array
11. Search an element in array
12. Sort an array
13. Left rotate an array
14. Right rotate an array