```c
//Selection and Bubble Sort
#include<stdio.h>
#include<stdlib.h>
void swap(int *x, int *y)
{
    int temp;
    temp=(*x);
    (*x)=(*y);
    (*y)=temp;
}
void bubble(int a[],int n)
{
    int i=0,j=0;
    int swapped;
    while(i!=n-1){
        swapped = 0;
        for(j=0;j<n-i-1;j++){
            if(a[j]>a[j+1]){
                swap(&a[j],&a[j+1]);
                swapped = 1;
            }
        }
        i++;
        if(swapped==0)
            return;
    }
}
void selection(int a[],int n)
{
    int i,j,min;
    for (i=0;i<n-1;i++)
```

```
    for (i=0;i<n-1;i++)
    {
        min=i;
        for (j=i+1;j<n;j++){
            if(a[j]<a[min]){
                min=j;
            }
        }
        swap(&a[min],&a[i]);
    }
}
void display(int a[],int n)
{
    int i;
    for (i=0;i<n;i++){
        printf("%d ",a[i]);
    }
}
int main()
{
    int a[10],i,choice,n;
    for(;;){
        printf("\nEnter the size of the array : ");
        scanf("%d",&n);
        printf("Enter values of array\n");
        for (i=0;i<n;i++){
            scanf("%d",&a[i]);
        }
        printf("1.Bubble Sort\n2.Selection Sort\n3.Exit\n");
        scanf("%d",&choice);
        switch(choice){
```

```
182         switch(choice){
183             case 1: printf("Bubble Sort :- \n");
184                     bubble(a,n);
185                     display(a,n);
186                     break;
187             case 2: printf("Selection Sort :- \n");
188                     selection(a,n);
189                     display(a,n);
190                     break;
191             case 3: exit(0);
192             default:printf("Proper instruction not provided\n");
193                     break;
194         }
195     }
196     return 0;
197 }
198
199
200
```

"C:\Users\Shreshtha Aggarwal\Desktop\4sem\bin\Debug\4sem.exe"

```
Enter the size of the array : 3
Enter values of array
24
15
6
1.Bubble Sort
2.Selection Sort
3.Exit
1
Bubble Sort :-
6 15 24
Enter the size of the array : 4
Enter values of array
87
92
15
7
1.Bubble Sort
2.Selection Sort
3.Exit
2
Selection Sort :-
7 15 87 92
Enter the size of the array : 1
Enter values of array
14
1.Bubble Sort
2.Selection Sort
3.Exit
3

Process returned 0 (0x0)   execution time : 26.641 s
Press any key to continue.
```