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Assignment Name: Implementation of Selection Sort
Class: MCA I                                          Lab: CA Lab III (DS)
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#include<iostream.h>
#include<conio.h>

class demo
{
      int a[10],i, min_index,j,n,temp,max_index;
public:
      void get();
      void asc_sort();
      void dsc_sort();
      void disp();
};

void demo::get()
{
      cout<<"\nEnter the array size:";
      cin>>n;
      cout<<"\nEnter the array element:";
      for(i=1;i<=n;i++)
      cin>>a[i];
}

void demo::asc_sort()
{
      for(i=1;i<=n-1;i++)
      {
          min_index=i;
          for(j=i+1;j<=n;j++)
          {
              if(a[j]<a[min_index]) // change a[j]>a[min_index] for descend
              min_index=j;
          }

          if(min_index!=i)
          {
              temp=a[min_index];
              a[min_index]=a[i];
              a[i]=temp;
          }
      }
}


void demo::dsc_sort()
{
      for(i=1;i<=n;i++)
      {
          max_index=i;
          for(j=i+1;j<=n;j++)
          {
              if(a[j]>a[max_index])
              min_index=j;
          }

          if(max_index!=i)
```

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                {
                        temp=a[max_index];
                        a[max_index]=a[i];
                        a[i]=temp;
                }
        }
}

void demo::disp()
{
        cout<<"\n The array element are ";
        for(i=1;i<=n;i++)
        cout<<a[i]<<"\t";
}

void main()
{
        clrscr();
        demo d;
        d.get();
        d.disp();
        d.asc_sort();
        cout<<"\nAfter ascending sort :";
        d.disp();
        d.dsc_sort();
        cout<<"\n After Descending sort :";
        d.disp();
        getch();
}

*/ Output */

Enter the array size:4

Enter the array element:12 3 -45 -6

 The array element are  12        3        -45      -6
After ascending sort:
 The array element are  -45       -6       3        12
 After Descending sort:
 The array element are  12        3        -6       -45
```