Assignment Name: Perform Bubble Sort for Integer Class: MCA I Lab: CA Lab III (DS) #include<iostream.h> #include<conio.h> class demo int a[10],i,last,exch,j,n,temp; public: void get(); void asc_sort(); void dec sort(); void disp(); }; void demo::get() { cout<<"\n Enter the array size:";</pre> cin>>n; cout<<"\nEnter the array element:";</pre> for(i=1;i<=n;i++) cin>>a[i]; } void demo::asc sort() { last=n; for(i=1;i<=n-1;i++) exch=0;for(j=1;j<=last-1;j++) if(a[j]>a[j+1]) //change a[j]<a[j+1] for descending sort temp=a[j]; a[j]=a[j+1];a[j+1]=temp;exch=exch+1; } if(exch==0)return; else last=last-1; } void demo::dec_sort() last=n; for(i=1;i<=n-1;i++) exch=0;

for(j=1;j<=last-1;j++)

if(a[j] < a[j+1])

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temp=a[j];
                       a[j]=a[j+1];
                       a[j+1]=temp;
                       exch=exch+1;
            }
           if(exch==0)
                 return;
           else
                 last=last-1;
      }
void demo::disp()
      cout<<"\nThe array element are :";</pre>
      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:";</pre>
      d.disp();
      d.dec sort();
      cout<<"\nAfter Descending Sort:";</pre>
      d.disp();
      getch();
*/ Output */
Enter the array size: 3
Enter the array element: 12 3 45
The array element are:
                         12 3
                                     45
After Ascending Sort:
The array element are:
                            12
                                     45
After Descending Sort:
The array element are:
                         45 12
                                     3
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Assignment Name: Implementation of Selection Sort
Class: MCA I
                                                          Lab: CA Lab III (DS)
#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:";</pre>
      cout<<"\nEnter the array element:";</pre>
      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;
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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 ";</pre>
      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 :";</pre>
      d.disp();
     d.dsc sort();
      cout<<"\n After Descending sort :";</pre>
      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
                                    3
                                             -6
                                                     -45
                        12
```