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**//Roll No:-52**

**//Assignment Tital:-Implementation of program based on Selection //sort technique**

**//Assignment No:**

#include<conio.h>

#include<iostream.h>

#include<stdlib.h>

class LIST

{

int \*A,n;

public:

LIST(int);

void READ\_LIST\_52();

void SHOW\_LIST\_52();

void SELECTION\_SORTACE\_52();

void SELECTION\_SORTDCE\_52();

};

LIST::LIST(int par)

{

n=par;

A=new int[n+1];

}

void LIST::READ\_LIST\_52()

{

cout<<endl<<"Enter list element :";

for(int i=1;i<=n;i++)

cin>>A[i];

}

void LIST::SHOW\_LIST\_52()

{

for(int i=1;i<=n;i++)

{

cout<<" "<<A[i];

}

}

void LIST::SELECTION\_SORTACE\_52()

{

for(int i=1;i<=n;i++)

{

int min=A[i];

int min\_pos=i;

for(int j=i+1;j<=n;j++)

{

if(A[j]<min)

{

min=A[j];

min\_pos=j;

}

}

A[min\_pos]=A[i];

A[i]=min;

}

}

void LIST::SELECTION\_SORTDCE\_52()

{

for(int i=1;i<=n-1;i++)

{

int max=A[i];

int max\_pos=i;

for(int j=i+1;j<=n;j++)

{

if(A[j]>max)

{

max=A[j];

max\_pos=j;

}

}

A[max\_pos]=A[i];

A[i]=max;

}

}

void main()

{

int size;

clrscr() ;

cout<<endl<<"Enter size of list";

cin>>size;

LIST obj(size);

obj.READ\_LIST\_52();

cout<<endl<<"List element before sorting";

obj.SHOW\_LIST\_52();

obj.SELECTION\_SORTACE\_52();

cout<<endl<<"List element sorting Ascending order";

obj.SHOW\_LIST\_52();

obj.SELECTION\_SORTDCE\_52();

cout<<endl<<"List element sorting Decending order" ;

obj.SHOW\_LIST\_52();

getch();

}