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NAME JUNAID BILAL

ROLLNO FA14-BSSE-007

SECTION BATCH#3 A

COMSATS INSTITIUTE OF INFORMATION TECHNOLOGY SAHIWAL.

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#include<iostream>

using namespace std;

#include<algorithm>

int n;

int uvl;

int uvb;

class pack

{

private:

int temp;

public:

void assending(int ara[])

{

for(int j=0;j<n;j++)

{

for(int k=0;k<n-1;k++)

{

if(ara[k]>ara[k+1])

{

temp=ara[k];

ara[k]=ara[k+1];

ara[k+1]=temp;

}

}

}

cout<<"\n\nAfter sorting the no are arranged\n";

for(int i=0;i<n;i++)

{

cout<<ara[i]<<endl;

}

}

//////////////////////////////////////////////

void desending(int dra[])

{

for(int j=0;j<n;j++)

{

for(int k=0;k<n-1;k++)

{

if(dra[k]<dra[k+1])

{

temp=dra[k];

dra[k]=dra[k+1];

dra[k+1]=temp;

}

}

}

cout<<"\n\nAfter sorting the no are arranged\n";

for(int i=0;i<n;i++)

{

cout<<dra[i]<<endl;

}

}

//////////////////////////////////////////////

int linearsearch(int lra[])

{

cout<<"\nEnter the searching value=";

cin>>uvl;

for(int l=0;l<5;l++)

{

if(uvl== lra[l])

{

return l; //return index

}

}

return -1;

}

////////////////////////////////////////////////

int binary(int bar[])

{

cout<<"\nEnter the searching value=";

cin>>uvb;

sort(bar,bar+5);

int low=0;

int high=n-1;

int mid;

while(low<=high)

{

mid=(low+high)/2;

if(uvb==bar[mid])

{

return mid;

}

else if(uvb>bar[mid])

{

low=mid+1;//update low

}

else

{

high=mid-1;

}

}

return -1;

}

};

/////////////////////////////////////////////////

void main()

{

int a[100];

int result\_ls;

int result\_bs;

pack p;

cout<<"\n\n\t\tHow many element do you want enter maximum 99?\t= ";

cin>>n;

cout<<"\n\nEnter elements now\n";

for(int i=0;i<n;i++)

{

cin>>a[i];

}

cout<<"\nASSENDING ELEMENTS ARE";

p.assending(a);

cout<<"\nDE-ASSENDING ELEMENTS ARE";

p.desending(a);

cout<<"\nLINEAR SEARCH IN DE-SENDING";

result\_ls=p.linearsearch(a);

if(result\_ls>=0)

{

cout<<"\n\nThe no="<<a[result\_ls]<<"was found at the element with index ="<<result\_ls<<endl;

}

else

{

cout<<"Number was not found"<<endl;

}

cout<<"\nBINARY SEARCH IS";

result\_bs=p.binary(a);

if(result\_bs>=0)

{

cout<<"\n\nThe no="<<a[result\_bs]<<"was found at the element with index ="<<result\_bs<<endl;

}

else

{

cout<<"Number was not found"<<endl;

}

getchar();

getchar();

}

/\*

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