**Assignment No:-**

**Assignment Name**:- **Write a program to find minimum and maximum form a given array.**

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**Roll No:- 136.**

#include<iostream.h>

#include<conio.h>

class MAX\_MIN

{

private:

int \*A,p,q,max,min,n,m;

public:

MAX\_MIN(int);

void READ();

void DISPLAY();

void MAXMIN(int,int,int&,int&);

};

MAX\_MIN ::MAX\_MIN(int par)

{

n=par;

A=new int[n+1];

}

void MAX\_MIN:: READ()

{

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

{

cin>>A[i];

}

}

void MAX\_MIN :: DISPLAY()

{

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

{

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

}

}

void MAX\_MIN :: MAXMIN(int p,int q,int &max, int &min)

{

int fmax,fmin,hmax,hmin;

if(p==q)

{

max=min=A[p];

}

else

{

if(p==q-1)

{

if(A[p]>A[q])

{

max=A[p];

min=A[q];

}

else

{

max=A[q];

min=A[p];

}

}

else

{

m=(p+q)/2;

MAXMIN(p,m,fmax,fmin);

MAXMIN(m+1,q,hmax,hmin);

if(fmax > hmax)

{

max=fmax;

}

else

{

max=hmax;

}

if(fmin<hmin)

{

min=fmin;

}

else

{

min=hmin;

}

}

}

}

void main()

{

clrscr();

int size,max,min;

cout<<"\n Enter the size of List ";

cin>>size;

cout<<"\n Enter Elements for MaxMin List ";

MAX\_MIN m(size);

m.READ();

cout<<"\n Your Elements is : ";

m.DISPLAY();

m.MAXMIN(1,size,max,min);

cout<<"\n MAX is : "<<max<<"\t MIN is : "<<min;

getch();

}