Experiment 4

#include<stdio.h>

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int max, min;

int a[100];

void maxmin(int i, int j)

{

int max1, min1, mid;

if(i==j){

max = min = a[i];}

else{

if(i == j-1){

if(a[i] <a[j])

{

max = a[j];

min = a[i];}

else{

max = a[i];

min = a[j];} }

else{

mid = (i+j)/2;

maxmin(i, mid);

max1 = max; min1 = min;

maxmin(mid+1, j);

if(max <max1)

max = max1;

if(min > min1)

min = min1;

} }}

int main (){

int i, num;

printf ("\nEnter the total number of numbers : ");

scanf ("%d",&num);

printf ("Enter the numbers : \n");

for (i=1;i<=num;i++)

scanf ("%d",&a[i]);

max = a[0];

min = a[0];

maxmin(1, num);

printf ("Minimum element in an array : %d\n", min);

printf ("Maximum element in an array : %d\n", max);

return 0;

}

