**ASSIGNMENT 9**

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#include<simplecpp>

main\_program

{

int i,j, n=10, c=1, k=0,max=0, mode, a[20],b[20];

float temp, s;

cout<<"Enter 10 numbers which you have to compare:\n";

for(i=0;i<10;i++)

{

cin>>a[i]; // takes input

}

for(j=0;j<10;j++)

{

for(i=0;i<9;i++)

{

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

{

temp=a[i+1];

a[i+1]=a[i];

a[i]=temp;

}

} //sorting array

}

cout<<"Array of given numbers in descending order is:\n";

for(j=0;j<=9;j++)

{

cout<<a[j]<<"\t";

}

cout<<"\n\nGreatest number is: "<<a[0]<<"\n";

cout<<"Smallest number is: "<<a[9]<<"\n";

s=(a[4]+a[5])/2;

cout<<"Median of given numbers is: "<<s<<"\n";

for(i=0;i<9;i++)

{

mode=0;

for(j=i+1;j<10;j++)

{

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

mode++;

}

if((mode>max)&&(mode!=0))

{

k=0;

max=mode;

b[k]=a[i];

k++;

}

else if(mode==max)

{

b[k]=a[i];

k++;

}

}

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

{

if(a[i]==b[i])

c++;

}

if(c==n)

cout<<"\n There is no mode";

else

{

cout<<"\nMode\t= ";

for(i=0;i<k;i++)

cout<<b[i];

}

cout<<"\nProgram ends here.\n\n";

}

