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Lab: Data Structures

Problem Statement:

WAP to merge two sorted array and display resultatnt array. Resultant array should be Sorted one.

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//Code:

#include<stdio.h>

void bubble\_sort(int a[],int size)

{

int temp,i,j;

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

{

for(j=0;j<size-1;j++)

{

if(a[j]>a[j+1])

{

temp=a[j];

a[j]=a[j+1];

a[j+1]=temp;

}

}

}

}

int main()

{

int a[6],b[6],result[12];

//Inputing Array Elements

printf("\nEnter array elements for 1st array\n");

for(int i=0;i<6;i++)

{

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

};

printf("\nEnter array elements for 2nd array\n");

for(int i=0;i<6;i++)

{

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

};

//Sorting arrays

printf("\nSorting arrays both arrays\n");

bubble\_sort(a,6);

bubble\_sort(b,6);

printf("\nArray 1:\n");

for(int i=0;i<6;i++)

{

printf("%d ",a[i]);

};

printf("\nArray 2:\n");

for(int i=0;i<6;i++)

{

printf("%d ",b[i]);

};

//Merging arrays into 1 and sorting it

for(int i=0;i<6;i++)

{

result[i]=a[i];

result[6+i]=b[i];

};

bubble\_sort(result,12);

printf("\n\nMerged and sorted Array:\n");

for(int i=0;i<12;i++)

{

printf("%d ",result[i]);

};

printf("\n");

return 0;

}

//Output:

