Week-06 Program-03

Due on 2020-03-12, 23:59 IST

Write a C program to read Two One Dimensional Arrays of same data type (integer type) and merge them into another One Dimensional Array of same type.

Sample Test Cases

<table>
<thead>
<tr>
<th>Input</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>15</td>
<td>45</td>
</tr>
<tr>
<td>45</td>
<td>25</td>
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<tr>
<td>25</td>
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<tr>
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<tr>
<td>60</td>
<td>70</td>
</tr>
<tr>
<td>70</td>
<td>80</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Input</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>90</td>
</tr>
<tr>
<td>90</td>
<td>80</td>
</tr>
<tr>
<td>80</td>
<td>10</td>
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<tr>
<td>10</td>
<td>30</td>
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<tr>
<td>30</td>
<td>2</td>
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<tr>
<td>2</td>
<td>25</td>
</tr>
<tr>
<td>25</td>
<td>75</td>
</tr>
</tbody>
</table>

Test Case 1

Test Case 2
Test Case 3

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>3</td>
<td>10</td>
<td>20</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>40</td>
<td>50</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>70</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Test Case 4

<p>| | | | | |</p>
<table>
<thead>
<tr>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>9</td>
<td>7</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>30</td>
<td>50</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The due date for submitting this assignment has passed. As per our records you have not submitted this assignment.

Sample solutions (Provided by instructor)

```c
#include<stdio.h>

int main()
{
    int arr1[20], arr2[20], array_new[40], n1, n2, size, i;
    /*n1 size of first array (i.e. arr1[]), n2 size of second array (i.e. arr2[]) size is the total size of the new array (array_new[]) */
    scanf("%d", &n1); //Get the size of first array from test data and
    for (i = 0; i < n1; i++)
        scanf("%d", &arr1[i]); //Accepts the values for first array
    scanf("%d", &n2); //Get the size of second array from test data and
    for (i = 0; i < n2; i++)
        scanf("%d", &arr2[i]); //Accepts the values for second array
    //Marge two arrays
    int j;
    for (i=0; i<n1; ++i)
    
        array_new[i]=arr1[i];
    size = n1 + n2;

    for(i=0, j=n1; j<size & i<n2; ++i, ++j)
        array_new[j] = arr2[i];
    //Printing after merging
    for (i = 0; i < size; i++)
    {
        printf("%d\n", array_new[i]);
    }
}```