Answer:----------

/ Using the given code for unsortedType.h and unsortedType.cpp:

// C++ program to combine the input 2 list sorted in ascending order into 1 list sorted in ascending order.

```
#include <iostream>
#include "unsortedtype.h"

using namespace std;

int main()
{
// create 3 UnsortedType objects for the 2 input lists and 1 output list
UnsortedType<int> list1, list2, result;
int n, value;
// read the number of integers for first sequence
cin >> n;

// loop to read n integers for first sequence and insert them into list1
for(int i=0;i<n;i++)
{
cin >> value;
list1.InsertItem(value);
}

// read the number of integers for second sequence
cin >> n ;
// loop to read n integers for second sequence and insert them into list2
for(int i=0;i<n;i++)
{
cin >> value;
list2.InsertItem(value);
}

// after the insertion list1 and list2 will be sorted in descending order

// reset the cursor of list1 and list2 to first item
list1.ResetList();
list2.ResetList();

// set i and j to index of first value in list1 and list2
int i = 0, j = 0, value1, value2;

// get the first values for list1 and list2 into value1 and value2 respectively
list1.GetNextItem(value1);
list2.GetNextItem(value2);

// loop that continues until we reach end of one of the lists
```

```
while(i < list1.LengthIs() && j < list2.LengthIs())
{
if(value1 >= value2) // value of list1 >= value of list2
{
// insert value of list1 into result
result.InsertItem(value1);
i++; // increment i by 1
if(i < list1.LengthIs()) // end of list1 has not been reached, get the next value of list1
list1.GetNextItem(value1);
}
else
{
// insert value of list2 into result
result.InsertItem(value2);
j++; // increment j by 1
if(j < list2.LengthIs()) // end of list2 has not been reached, get the next value of list2
list2.GetNextItem(value2);
}
}

// insert the remaining elements of list1 into result
while(i < list1.LengthIs())
{
result.InsertItem(value1);
i++;
if(i < list1.LengthIs())
list1.GetNextItem(value1);
}

// insert the remaining elements of list2 into result
while(j < list2.LengthIs())
{
result.InsertItem(value2);
j++;
if(j < list2.LengthIs())
list2.GetNextItem(value2);
}

// reset the result list
result.ResetList();
// loop to display the elements of result list
for(i=0;i<result.LengthIs();i++)
{
result.GetNextItem(value);
cout << value << " " ;
}

cout << endl;
```

```
return 0;
}

// end of program
```

input:

```
10 1 5 6 10 14 20 25 31 38 40
12 2 4 7 9 16 19 23 24 32 35 36 42
```

output:

```
1 2 4 5 6 7 9 10 14 16 19 20 23 24 25 31 32 35 36 38 40 42
```