```cpp
// Justin Dang Student ID: 1148267
/*
Sorts char arrays and int arrays

known to work with the hard coded data and may not work with different arrays and different sizes

when sorting strings, null char will remain when sorting
*/
#include <iostream>
using namespace std;

template<typename T>
void Sort(T a[], int arrSize) {
    T temp;
    if (a[0] >= 'A' && a[0] <= 'a') {               // tests if the array is not an int array by checking if the first index is between a range of ascii values
        for (int i = 0; i < arrSize - 1; i++) {     // sorts char array
            for (int x = 0; x < arrSize - 1; x++) {
                if (a[x] > a[x + 1]) {
                    temp = a[x];
                    a[x] = a[x + 1];
                    a[x + 1] = temp;
                }
            }
        }
    }
    else {
        for (int i = 0; i < arrSize - 1; i++) {     // sorts int array
            for (int x = 0; x < arrSize - 1; x++) {
                if (a[x] > a[x + 1]) {
                    temp = a[x];
                    a[x] = a[x + 1];
                    a[x + 1] = temp;
                }
            }
        }
    }
}
template<typename T>
void Print(T a[], int arrSize) {
    for (int i = 0; i < arrSize; i++)
        cout << a[i] << ' ';
}

int main()
{
    const int arr1Size = 10, arr2Size = 7;                  // array sizes
    int arr1[arr1Size] = {10, 4, 9, 1, 2, 5, 6, 8, 7, 3};   // int array
    char arr2[arr2Size] = { 'J', 'u', 's', 't', 'i', 'n' }; // char array

    cout << "After sorting:\n\narr1: ";
    Print(arr1, arr1Size);
    cout << "\n\narr2: ";
    Print(arr2, arr2Size);

    cout << "\n\n";

    Sort(arr1, arr1Size);
    Sort(arr2, arr2Size);

    cout << "After sorting:\n\narr1: ";
    Print(arr1, arr1Size);
    cout << "\n\narr2: ";
    Print(arr2, arr2Size);
}
/*//-----------------------------------------case 1:
After sorting:

arr1: 10 4 9 1 2 5 6 8 7 3

arr2: J u s t i n

After sorting:

arr1: 1 2 3 4 5 6 7 8 9 10

arr2:  J i n s t u
*///-----------------------------------------

```