

Code:

```
#include <iostream>
using namespace std;

template <typename T>
void selectionSort(T arr[], int size)
{
    for (int i = 0; i < size - 1; ++i)
    {
        int minIndex = i;
        for (int j = i + 1; j < size; ++j)
        {
            if (arr[j] < arr[minIndex])
            {
                minIndex = j;
            }
        }

        T temp = arr[i];
        arr[i] = arr[minIndex];
        arr[minIndex] = temp;
    }
}

int main()
{
    int intArraySize, floatArraySize;

    cout << "Enter the size of the integer array: ";
    cin >> intArraySize;

    cout << "Enter the size of the float array: ";
    cin >> floatArraySize;

    int *intArray = new int[intArraySize];
    float *floatArray = new float[floatArraySize];

    cout << "Enter integer numbers to sort: ";
    for (int i = 0; i < intArraySize; ++i)
    {
        cin >> intArray[i];
    }

    cout << "Enter floating numbers to sort: ";
    for (int i = 0; i < floatArraySize; ++i)
    {
        cin >> floatArray[i];
    }
}
```

```

selectionSort(intArray, intArraySize);

selectionSort(floatArray, floatArraySize);

cout << "Sorted Integer Array: \n";
for (int i = 0; i < intArraySize; i++)
{
    cout << intArray[i] << " ";
}

cout << "\nSorted Float Array: \n";
for (int i = 0; i < floatArraySize; i++)
{
    cout << floatArray[i] << " ";
}

delete[] intArray;
delete[] floatArray;

return 0;
}

```

Output:

```

PS D:\Education\Degree\Third Sem\Object Oriented Programming\Lab Assignment\Codes> cd "d
:\Education\Degree\Third Sem\Object Oriented Programming\Lab Assignment\Codes\" ; if ($?
) { g++ function_template.cpp -o function_template } ; if ($?) { .\function_template }
Enter the size of the integer array: 5
Enter the size of the float array: 5
Enter integer numbers to sort: 45 23 67 12 34
Enter floating numbers to sort: 45.12 23.45 67.23 12.56 34.10
Sorted Integer Array:
12 23 34 45 67
Sorted Float Array:
12.56 23.45 34.1 45.12 67.23
PS D:\Education\Degree\Third Sem\Object Oriented Programming\Lab Assignment\Codes>

```