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StraightInsertionSort.h

🖼 **minhdang2803** DSA 203 Asm3   🕘

👥 **1** contributor

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39 lines (34 sloc) │ 881 Bytes   ⋯

```
 1    /*
 2     * To change this license header, choose License Headers in Project Properties.
 3     * To change this template file, choose Tools | Templates
 4     * and open the template in the editor.
 5     */
 6
 7    /*
 8     * File:   StraightInsertionSort.h
 9     * Author: LTSACH
10     *
11     * Created on 23 August 2020, 16:24
12     */
13
14    #ifndef STRAIGHTINSERTIONSORT_H
15    #define STRAIGHTINSERTIONSORT_H
16    #include "sorting/ISort.h"
17
18    template<class T>
19    class StraightInsertionSort: public ISort<T>{
20    public:
21        void sort(T array[], int size, int (*comparator)(T&,T&)){
22            int i, j;
23            T key;
24            for (i = 1; i < size;i++)
25            {
26                key = array[i];
27                j = i - 1;
```

```
28              while(j>=0 && (*comparator)(array[j],key) == 1)
29              {
30                  array[j + 1] = array[j];
31                  j--;
32              }
33              array[j + 1] = key;
34          }
35      }
36  };
37
38  #endif /* STRAIGHTINSERTIONSORT_H */
39
```