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1  #include <iostream>
2  #include <time.h>
3  #include <stdlib.h>
4  #include "RandomNumbers.h"
5  #include "Methods.h"
6  using namespace std;
7
8  int main()
9  {
10     float first, last, result;
11     Methods myMethods;
12     Methods myMethods2;
13     RandomNumbers myRandom;
14
15     long int data;
16
17     srand(time(NULL));
18
19     for( int i(0) ; i < 100000 ; i++ ){
20         data = (rand() % 1000) * (rand() % 1000);
21         myRandom.setRandom(data);
22         myMethods.setNumber(myRandom);
23     }
24
25     myMethods2 = myMethods;
26
27     cout << "Metodo[Burbuja] -Tiempo: ";
28     first = clock();
29     myMethods.bubbleSort();
30     last = clock();
31     result = (last-first) / 1000 ;
32     cout << result << " Segundos" << endl << endl;
33
34     myMethods = myMethods2;
35
36     cout << "Metodo[Shell] -Tiempo: ";
37     first = clock();
38     myMethods.shellSort();
39     last = clock();
40     result = (last-first) / 1000 ;
41     cout << result << " Segundos" << endl << endl;
42
43     myMethods = myMethods2;
44
45     cout << "Metodo[Insercion] -Tiempo: ";
46     first = clock();
47     myMethods.insertSort();
48     last = clock();
49     result = (last-first) / 1000 ;
50     cout << result << " Segundos" << endl << endl;
51
52     myMethods = myMethods2;
53
54     cout << "Metodo[Seleccion] -Tiempo: ";
55     first = clock();
56     myMethods.selectionSort();
57     last = clock();
58     result = (last-first) / 1000 ;
59     cout << result << " Segundos" << endl << endl;
60
61     myMethods = myMethods2;
62
63     cout << "Metodo[Mezcla] -Tiempo: ";
64     first = clock();
65     myMethods.mergeSort();
66     last = clock();

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67     result = (last-first) / 1000 ;
68     cout << result << " Segundos" << endl << endl;
69
70     myMethods = myMethods2;
71
72     cout << "Metodo[QuickSort] -Tiempo: ";
73     first = clock();
74     myMethods.quickSort();
75     last = clock();
76     result = (last-first) / 1000 ;
77     cout << result << " Segundos" << endl << endl;
78
79     return 0;
80 }
```