

src/useArray.cpp

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1 // Title : useArray.cpp
2 // Desc : Implementation for useArray.h
3 // Name : An Tran
4
5 #include "useArray.h"
6 #include <iostream>
7 #include <cstdlib>
8 #include <ctime>
9
10 int howMany() {
11     int num{0};
12     std::cout << "Enter the number of elements (1-100): ";
13     std::cin >> num;
14     if (std::cin.fail() || num > 100 || num < 1) {
15         throw "The input does not meet the requirements";
16     } else {
17         return num;
18     };
19 };
20
21 void fillArray(std::array<int, MAX_SIZE>& arr, int& size) {
22     if (size < 1 || size > 100) {
23         return;
24     };
25
26     for (int i = 0; i < size; i++) {
27         arr[i] = rand() % 10000;
28     };
29 };
30
31 void printArray(std::array<int, MAX_SIZE>& arr, int& size) {
32     for (int i = 0; i < size; i++) {
33         std::cout << arr[i] << " ";
34         if ((i + 1) % 10 == 0) {
35             std::cout << '\n';
36         };
37     };
38 };
39
40 bool dupeCheck(std::array<int, MAX_SIZE>& arr, int& size){;
41     for (int i = 0; i < size - 1; i++) {
42         for (int j = i + 1; j < size; j++) {
43             if (arr[i] == arr[j]) {
44                 return false;
45             };
46         };
47     };
48     return true;
49 };
50
51 void sortArray(std::array<int, MAX_SIZE>& arr, int& size) {
52     int temp{0};
53     for (int i = 0; i < size - 1; ++i) {
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54     for (int j = 0; j < size - i - 1; ++j) {
55         if (arr[j] > arr[j + 1]) {
56             temp = arr[j];
57             arr[j] = arr[j + 1];
58             arr[j + 1] = temp;
59         }
60     }
61 }
62 }
63
```