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1  /**
2  File: Ned_Smith_Lab8_task2.cpp
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10 */
11
12 #include <iostream>
13 #include <string>
14 #include <iomanip>
15 using namespace std;
16 void selectionSort(double array1[], int Days_Week[], int length);
17 void print(double sales_array1[], int week_array[], int array_length);
18 const int DAYS = 7;
19 int main()
20 {
21     cout << left << fixed << showpoint << setprecision(2);
22     double sales[DAYS]; //Declare an array to hold the sales for each day
23     int week[7] = {1,2,3,4,5,6,7}; //Declare an array to hold the days of the week
24     int total = 0; //Initialize the total to be zero
25     for (int day = 0; day < DAYS; day++) //Create a for loop that runs for 7 iterations and does
the following
26     {
27         cout << "Sales for day " << day + 1 << ": "; //Prompts the user to input the sales for
the given day
28         cin >> sales[day]; //Reads the user's input for the sales on that given day
29         if (sales[day] >= 0) //Evaluates if the sales for that day are above zero
30             total += sales[day]; //If so, adds the sales for the given day into the array at the
given position
31         else
32             day--; //Otherwise, subtracts one from the current day (allowing a re-input)
33     }
34     cout << "The total sales for the week are $" << total << endl << endl; //Output the total
for the sales of the week
35     selectionSort(sales, week, 7); //Call the selection sort function
36     print(sales, week, DAYS); //Call the print function
37     return 0;
38 }
39
40 void selectionSort(double array1[], int Days_Week[], int length) //Create a function that does
the following
41 {
42     int index, smallestIndex, location, temp, temp_day;
43
44     for (index = 0; index < length - 1; index++) //Use a loop to find the smallest element in
the sales array
45     {
46         smallestIndex = index;
47
48         for (location = index + 1; location < length; location++)
49         {
50             if (array1[location] < array1[smallestIndex])
51                 smallestIndex = location;
52         }
53         temp = array1[smallestIndex]; //Swap the smallest element in the sales array with the
first element in the unsorted array
54         array1[smallestIndex] = array1[index];
55         array1[index] = temp;
56
57         temp_day = Days_Week[smallestIndex]; //Swap the days in the array the same way you swap
the sales
58         Days_Week[smallestIndex] = Days_Week[index];
59         Days_Week[index] = temp_day;
60     }
61 }
62
63 void print(double sales_array[], int week_array[], int array_length) //Create a function that

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does the following:

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64 {
65     cout << setw(10) << "Weekday" << setw(10) << "Sales" << endl; ///Formats the output
66     for (int i = 0; i < array_length; i++)
67     {
68         cout << setw(10) << week_array[i] << "$" << sales_array[i] << endl; ///Prints out the day
and sales for that day in the correct order
69     }
70 }
```