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1  /*
2  -----
3  Laboratory   : labo_11
4  File         : searchers.h
5  Author(s)    : Yannick Schaufelberger et David Gallay
6  Date        : 18.01.2020
7
8  Goal         : Library defining the Searchers and functions to modify, get values or
9                display a SearchersList
10 Remark(s)    :
11
12                There is the github repository:
13                https://github.com/dgheig/lab011
14
15 Compiler     : MinGW-g++ 6.3.0 and g++ 7.4.0
16 -----*/
17
18 #ifndef SEARCHERS_H
19 #define SEARCHERS_H
20
21 #include "map.h"
22 #include <cstdlib> //size_t
23 #include <vector>
24 #include <string>
25
26 enum ResearcherStatus {
27     UNDEFINED,
28     RICH,
29     LOST,
30     DROWNED,
31     EXHAUSTED
32 };
33
34 typedef std::vector<int> Searcher;
35 typedef std::vector<Searcher> SearcherList;
36
37 /**
38  * @param stepsValue
39  * @param statusValue
40  * @return a searcher initialized with the given values
41  */
42 Searcher initSearcher(int stepsValue = 0, ResearcherStatus statusValue = UNDEFINED);
43
44 /**
45  * @param searcher
46  * @return the amount of steps taken by a searcher
47  */
48 int getSteps(const Searcher& searcher);
49
50 /**
51  * @param searcher
52  * @return the status of a searcher
53  */
54 int getStatus(const Searcher& searcher);
55
56 /**
57  * @param searcher
58  * @return a string containing the status of a searcher
59  */
60 std::string getStatusString(const Searcher& searcher);
61
62 /**
63  * @brief sets the steps of a searcher to the given value
64  * @param searcher
65  * @param value
66  * @return true if success
67  */
68 bool setSteps(Searcher& searcher, int value);
69
70 /**
71  * @brief sets the status of a searcher to the given value
72  * @param searcher
73  * @param value
74  * @return true if success, false if not
75  */
76 bool setStatus(Searcher& searcher, ResearcherStatus value);
77
78 /**
79  * @brief displays the information of every searcher in the list
80  * @param list

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78     * @return true if success, false if not
79     */
80     bool displaySearcherList(SearcherList& list);
81
82 #endif //SEARCHERS_H
```