

```
1  #include "searchers.h"
2  #include "map.h"
3  #include <vector>
4  #include <string>
5  #include <iostream>
6
7  enum SearcherAttributeIndex {
8      SAI_STEPS,
9      SAI_STATUS
10 };
11
12 Searcher initSearcher(int stepsValue, ResearcherStatus statusValue) {
13     Searcher searcher = {
14         stepsValue,
15         (int) statusValue
16     };
17     return searcher;
18 }
19
20 int getSteps(const Searcher& searcher) {
21     return searcher[SAI_STEPS];
22 }
23
24 int getStatus(const Searcher& searcher) {
25     return searcher[SAI_STATUS];
26 }
27
28 std::string getStatusString(const Searcher& searcher) {
29     switch (getStatus(searcher)) {
30     case RICH:
31         return "RICH";
32     case LOST:
33         return "LOST";
34     case DROWNED:
35         return "DROWNED";
36     case EXHAUSTED:
37         return "EXHAUSTED";
38     case UNDEFINED:
39     default:
40         return "UNDEFINED";
41     }
42 }
43
44 bool setSteps(Searcher& searcher, int value) {
45     searcher[SAI_STEPS] = value;
46     return true;
47 }
48
49 bool setStatus(Searcher& searcher, ResearcherStatus value) {
50     if (value > EXHAUSTED or value < 0)
51         return false;
52     searcher[SAI_STATUS] = value;
53     return true;
54 }
55
56 bool displaySearcherList(SearcherList& list) {
57     if (list.empty())
58         return false;
59
60     for (Searcher& searcher : list) {
61         std::cout << "Steps : " << getSteps(searcher) << "\tStatus : " <<
62             getStatusString(searcher) << std::endl;
63     }
64     return true;
65 }
```