```
1: // $Id: matchlines.cpp, v 1.1 2016-06-28 14:46:02-07 - - $
 2:
 3: //
 4: // Matches lines according to the program specs.
 5: // Prints out results depending on type of line.
 6: //
 7:
 8: #include <cassert>
 9: #include <iostream>
10: #include <regex>
11: #include <string>
12: using namespace std;
13:
14: int main() {
       regex comment_regex {R"(^\s*(#.*)?$)"};
15:
16:
       regex key_value_regex {R"(^\s*(.*?)\s*=\s*(.*?)\s*$)"};
17:
       regex trimmed_regex {R"(^\s*([^=]+?)\s*$)"};
18:
       for (;;) {
19:
          string line;
20:
          getline (cin, line);
21:
          if (cin.eof()) break;
          cout << endl << "input: \"" << line << "\"" << endl;</pre>
22:
23:
24:
          if (regex_search (line, result, comment_regex)) {
25:
             cout << "Comment or empty line." << endl;</pre>
26:
             continue;
27:
          }
28:
          if (regex_search (line, result, key_value_regex)) {
29:
             cout << "key : \"" << result[1] << "\"" << endl;</pre>
             cout << "value: \"" << result[2] << "\"" << endl;</pre>
30:
31:
          }else if (regex_search (line, result, trimmed_regex)) {
             cout << "query: \"" << result[1] << "\"" << endl;</pre>
32:
33:
          }else {
             assert (false and "This can not happen.");
34:
35:
36:
       }
37:
       return 0;
38: }
39:
40: /*
41: //TEST// (echo '
                         # comment
42: //TEST// echo '
43: //TEST// echo '
                       No equal in this line.
                       key key = value value ';
44: //TEST// echo '
45: //TEST// echo 'only key here =
                                        ′;
46: //TEST// echo '
                      = only value here
47: //TEST// echo '
48: //TEST// ) | matchlines >matchlines.out 2>&1
49: //TEST// mkpspdf matchlines.ps matchlines.cpp* matchlines.out
50: */
51:
```

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## \$cmps109-wm/Assignments/asg3-listmap-templates/misc/matchlines.cpp.log

1/1

```
1:
2: input: " # comment
3: Comment or empty line.
4:
 5: input: "
6: Comment or empty line.
7:
8: input: " No equal in this line.
9: query: "No equal in this line."
10:
11: input: " key key key = value value "
12: key : "key key key"
13: value: "value value value"
14:
15: input: "only key here =
16: key : "only key here"
17: value: ""
18:
19: input: " = only value here
20: key : ""
21: value: "only value here"
22:
23: input: "
             = "
24: key : ""
25: value: ""
```