

~\OneDrive\Desktop\lex-verifier.cpp

```
1  #include <iostream>
2  #include <regex>
3  #include <string>
4  using namespace std;
5  void wordChecker(const string testWord) {
6
7      regex intPattern(R"([+-]?([0-9][0-9]*)$)");
8      regex floatPattern(R"([+-]?([0-9]*\.[0-9]+|\.[0-9]+)$)");
9      regex stringPattern(R"([^\\"(\\"|\\'|\\[ntbr\\"])*\\"]$)");
10     regex boolPattern(R"(^true|false|0|1$)");
11     regex charPattern(R"([^\\"([ntbr\\"]|\\'|\\[ntbr\\"])*\\'|\\[ntbr\\"]$)");
12     regex idenPattern(R"([a-z]+$)");
13     if (regex_match(testWord, intPattern)) {
14         cout << "Word belongs to classification: Integer" << endl;
15         return;
16     }
17     if (regex_match(testWord, floatPattern)) {
18         cout << "Word belongs to classification: Float" << endl;
19         return;
20     }
21     if (regex_match(testWord, stringPattern)) {
22         cout << "Word belongs to classification: String" << endl;
23         return;
24     }
25     if (regex_match(testWord, boolPattern)) {
26         cout << "Word belongs to classification: Boolean" << endl;
27         return;
28     }
29     if (regex_match(testWord, charPattern)) {
30         cout << "Word belongs to classification: Character" << endl;
31         return;
32     }
33     if (regex_match(testWord, idenPattern)) {
34         cout << "Word belongs to classification: Identifier" << endl;
35         return;
36     }
37     // IF no match Print "Invalid word"
38     cout << "Invalid word" << endl;
39 }
40 int main() {
41     string input;
42     while(true){
43         cout << "Enter a word to check its class: ";
44         cin >> input;
45         wordChecker(input);
46     }
47     return 0;
48 }
```