Source File: ~/1337/52/lab52.(C|CPP|cpp|c++|cc|cxx|cp)
Input: Under control of `main` function
Output: Under control of `main` function
Value: 1

Write a function whose prototype is given by

```
string removeWhitespace(string s);
```

The function removes all whitespace characters from `s`. The transformed string is returned to the calling function.

A sample `main` function for testing your function is shown in Figure 1. Commands to compile, link, and run this assignment are shown in Figure 2. To use the `Makefile` as distributed in class, add a target of `lab52` to `targets2srcfiles`.

```cpp
1   #include <iostream>
2   #include <cstdlib>
3   #include <string>
4
5   using namespace std;
6
7   // Function removeWhitespace removes all whitespace characters from
8   // string s. The transformed string is returned to the calling function.
9   string removeWhitespace(string s);
10
11  int main()
12  {
13    string str, newString;
14
15    while (getline(cin, str))
16    {
17      cout << "Before:  " << str << endl;
18      newString = removeWhitespace(str);
19      cout << " After:  " << newString << endl;
20    }
21
22    return EXIT_SUCCESS;
23  }
```

Figure 1. `/usr/local/1337/src/lab52main.C`

```
1   newuser@csunix ~> cd 1337
2   newuser@csunix ~/1337> mkdir 52
3   newuser@csunix ~/1337> cd 52
4   newuser@csunix ~/1337/52> cp /usr/local/1337/data/52/* .
5   newuser@csunix ~/1337/52> cp /usr/local/1337/src/lab52main.C .
6   newuser@csunix ~/1337/52> cp /usr/local/1337/src/Makefile .
7   newuser@csunix ~/1337/52> touch lab52.cpp
8   newuser@csunix ~/1337/52> # Edit Makefile and lab52.cpp
```

Figure 2. Commands to Compile, Link, & Run Lab 52 (Part 1 of 2)

```
 9  newuser@csunix ~/1337/52> make lab52
10  g++ -g -Wall -std=c++11 -c lab52main.C -I/usr/local/1337/include -I.
11  g++ -g -Wall -std=c++11 -c lab52.cpp -I/usr/local/1337/include -I.
12  g++ -o lab52 lab52main.o lab52.o -L/usr/local/1337/lib -lm -lbits
13  newuser@csunix ~/1337/52> cat 01.dat
14  supercalifragilisticexpialidocious
15  A nonsense-word used esp. by children, now chiefly expressing excited
16  approbation: fantastic, fabulous.
17    Made popular by the Walt Disney film "Mary Poppins" in 1964. The
18  song containing the word was the subject of a copyright infringement
19  suit brought in 1965 against the makers of the film by Life Music
20  Co. and two song-writers: cf. quots. 1949, 1951. In view of earlier
21  oral uses of the word sworn to in affidavits and dissimilarity between
22  the songs the judge ruled against the plaintiffs.
23
24  Taken from the OED.
25    !"#$%&'()*+,-./:;<=>?@[\]^_'{|}~
26  newuser@csunix ~/1337/52> cat 01.dat | ./lab52
27  Before:  supercalifragilisticexpialidocious
28   After:  supercalifragilisticexpialidocious
29  Before:  A nonsense-word used esp. by children, now chiefly expressing excited
30   After:  Anonsense-wordusedesp.bychildren,nowchieflyexpressingexcited
31  Before:  approbation: fantastic, fabulous.
32   After:  approbation:fantastic,fabulous.
33  Before:    Made popular by the Walt Disney film "Mary Poppins" in 1964. The
34   After:  MadepopularbytheWaltDisneyfilm"MaryPoppins"in1964.The
35  Before:  song containing the word was the subject of a copyright infringement
36   After:  songcontainingthewordwasthesubjectofacopyrightinfringement
37  Before:  suit brought in 1965 against the makers of the film by Life Music
38   After:  suitbroughtin1965againstthemakersofthefilmbyLifeMusic
39  Before:  Co. and two song-writers: cf. quots. 1949, 1951. In view of earlier
40   After:  Co.andtwosong-writers:cf.quots.1949,1951.Inviewofearlier
41  Before:  oral uses of the word sworn to in affidavits and dissimilarity between
42   After:  oralusesofthewordsworntoinaffidavitsanddissimilaritybetween
43  Before:  the songs the judge ruled against the plaintiffs.
44   After:  thesongsthejudgeruledagainsttheplaintiffs.
45  Before:
46   After:
47  Before:  Taken from the OED.
48   After:  TakenfromtheOED.
49  Before:    !"#$%&'()*+,-./:;<=>?@[\]^_'{|}~
50   After:  !"#$%&'()*+,-./:;<=>?@[\]^_'{|}~
51  newuser@csunix ~/1337/52> cat 01.dat | ./lab52 > my.out
52  newuser@csunix ~/1337/52> diff 01.out my.out
53  newuser@csunix ~/1337/52> cat 02.dat | ./lab52 > my.out
54  newuser@csunix ~/1337/52> diff 02.out my.out
55  newuser@csunix ~/1337/52> cat 06.dat | ./lab52 > my.out
56  newuser@csunix ~/1337/52> diff 06.out my.out
57  newuser@csunix ~/1337/52>
```

Figure 2. Commands to Compile, Link, & Run Lab 52 (Part 2 of 2)