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1 //*****
2 // File name: 09BFilesExample.cpp
3 // Author: Instructor
4 // Date: October 10, 2016
5 // Class: CS 150-01
6 // Example: Lecture 9B
7 // Purpose: Demonstrate File Input
8 //*****
9
10 // 1. Include proper header file
11 #include <iostream>
12 #include <fstream>
13
14 using namespace std;
15
16 int main()
17 {
18     const double SENTINEL_VALUE = -99.0;
19     const string INPUT_FILE = "numbers.txt";
20
21     int counter = 0;
22
23     double number;
24     double sum = 0.0;
25     double average = 0.0;
26
27     // 2. Create file stream object
28     ifstream inputFile;
29
30     // 3. Open the file
31     inputFile.open(INPUT_FILE);
32
33     // 4. Check that the file opened correctly
34     if (inputFile.fail())
35     {
36         cout << "Error opening input file ";
37         exit(EXIT_FAILURE);
38     }
39
40     // 5. Use the file
41     inputFile >> number;
42
43     while (SENTINEL_VALUE != number)
44     {
45         sum += number;
46         counter++;
47         inputFile >> number;
48     }
49
```

```
50 average = sum / counter;
51 cout << "The average is: " << average;
52
53 // 6. Close the file
54 inputFile.close();
55
56 return EXIT_SUCCESS;
57 }
```