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// This program demonstrates how file stream objects may
// be passed by reference to functions.
#include <iostream>
#include <fstream>
#include <string>
using namespace std;

// Function prototypes
bool openFileIn(fstream &, string);
void showContents(fstream &);

int main()
{
    fstream dataFile;

    if (openFileIn(dataFile, "demofile.txt"))
    {
        cout << "File opened successfully.\n";
        cout << "Now reading data from the file.\n\n";
        showContents(dataFile);
        dataFile.close();
        cout << "\nDone.\n";
    }
    else
        cout << "File open error!" << endl;

    return 0;
}

//*****
// Definition of function openFileIn. Accepts a reference *
// to an fstream object as an argument. The file is opened *
// for input. The function returns true upon success, false *
// upon failure. *
//*****

bool openFileIn(fstream &file, string name)
{
    file.open(name, ios::in);
    if (file.fail())
        return false;
    else
        return true;
}

//*****
// Definition of function showContents. Accepts an fstream *
// reference as its argument. Uses a loop to read each name *
// from the file and displays it on the screen. *
//*****

void showContents(fstream &file)
{
    string line;

    while (file >> line)
    {
        cout << line << endl;
    }
}

```

}  
}