

Sample Program 10.1

About File I/O

Problem statement. Write a code block to open a file `data.txt` and count the number of lines in it.

Solution.

```
int nLines = 0;
string fileName = "data.txt"; // requires #include <string>
ifstream fin;                 // requires #include <fstream>
fin.open(fileName.c_str());
if (!fin.good()) throw "I/O error";

while (fin.good())
{
    string line;
    getline(fin, line);
    nLines++;
}
fin.close();

cout << "The file " << fileName << " is " << nLines << " long." << endl;
```

Problem statement. Write a code block to copy the file `dataOld.txt` to `dataNew.txt`.

Solution.

```
ifstream fin; // requires #include <fstream>
fin.open("dataOld.txt");
if (!fin.good()) throw "I/O error";

ofstream fout;
fout.open("dataNew.txt");
if (!fout.good()) throw "I/O error";

while (fin.good())
{
    string line; // requires #include <string>
    getline(fin, line);
    fout << line << endl;
}

fout.close();
fin.close();
```