

# CS1400: Reading to End of File

## Testing for End of File (eof)

It is not very often that you know exactly how much data will be in a file when you are writing a program. Programs have to be written so that they can read data from files of all different sizes. So, what do you do if you want to read data from a file, but you don't know how much data is in the file? In C#, the solution is easy. When you try to read past the end of a file, the `ReadLine()` method returns an empty string. We can test this condition by writing

```
if (inputString == null) ...
```

The following example reads integer data from a file and prints it until it reaches the end of the file.

```
StreamReader theTextFile = new
StreamReader("someData.txt");
do {
    string inputString = theTextFile.ReadLine(
);
    if (inputString != null)
        Console.WriteLine(inputString);
}while (inputString != null)
```

The general algorithm for reading and processing data from a file then looks like this:

1. Open the File
2. Write a loop that
  - Using `ReadLine()`, reads in a line of data and stores it in a string.
  - Checks to see if the string is null. If it is not, it does whatever processing you need to do on the data.
3. If it is null, drop out of the loop