Do Now:
Create a notepad file that has the following information: (Save it as payroll.txt)

Sample File: PAYROLL.TXT

Mike Jones ← Name
7.35 ← Hourly wage
35 ← Number of hours worked
John Smith
6.75
33

Reading Data from Files

- Data can be stored in files and accessed with a StreamReader object.
- We assume that the files are
  - text files (that is, have extension .TXT)
  - and have one piece of data per line.

Steps to Use StreamReader

Execute a statement of the form

```
Dim readerVar As IO.StreamReader
readerVar = IO.File.OpenText(filespec)
```

or the condensed statement

```
Dim readerVar As IO.StreamReader  = _
                IO.File.OpenText(filespec)
```

Steps to Use StreamReader

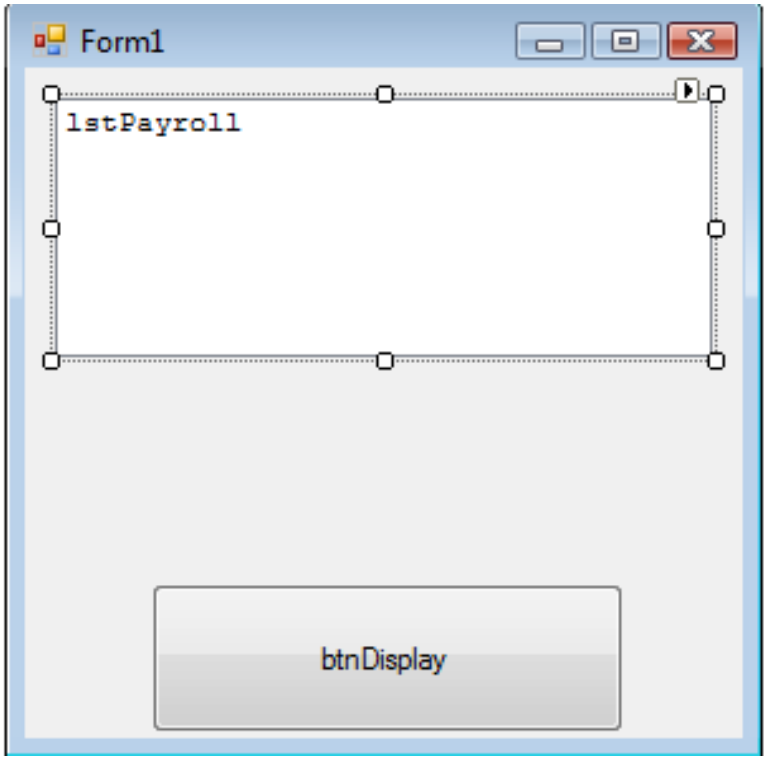
Read items of data in order, one at a time, from the file with the ReadLine method.

```
strVar = readerVar.ReadLine
```

After the desired items have been read from the file, terminate the communications link

```
readerVar.Close()
```

Create the following form:



Double click on the button

Insert a comment:

“This program will calculate the amount of money each person in the company made in a week”

Example using StreamReader

```
Dim name As String
Dim wage, hours, salary As Double
Dim sr As IO.StreamReader  = _

    IO.File.OpenText("PAYROLL.TXT")


name = sr.ReadLine
wage = CDbl(sr.ReadLine)
hours = CDbl(sr.ReadLine)
salary=wage*hours
lstPayroll.Items.Add(name & ": " &_
FormatCurrency(salary))
```

How do we get the next employees info in?

By writing the same lines as before ☺

```
name = sr.ReadLine
wage = CDbl(sr.ReadLine)
hours = CDbl(sr.ReadLine)
salary=wage*hours
lstPayroll.Items.Add(name & ": " &_
FormatCurrency(salary))
```

OUTPUT: **Mike Jones: $257.25**

John Smith:$222.75

Another Example:

Create a program which takes the average amounts of money spent by single-person households for several categories and converts these amounts to percentages.

Use this data: (save the file as “Costs.txt)

Transportation
4251
Housing
8929
Food
3414
Other
8829

```
Private Sub…
Dim sr As IO.StreamReader= IO.File.OpenText("Costs.TXT")
Dim total As Double'total annual amount spent
Dim category As String
Dim amount As Double'amount spent on category

Dim fmtStr As String = "{0,-15}{1,8:P}"

category = sr.ReadLine'reads the first category from the file
total += CDbl(sr.ReadLine)'increment total by the amount 'associated
   with the category
category = sr.ReadLine 'reads the next category from the file
total += CDbl(sr.ReadLine)
category = sr.ReadLine 'reads the next category from the file
total += CDbl(sr.ReadLine)
category = sr.ReadLine 'reads the next category from the file
total += CDbl(sr.ReadLine)

sr.Close()
```

How do we reopen a file?

sr = IO.File.Opentext(*fileName*)

sr = IO.File.Opentext(*"Costs.txt"*)

```
category = sr.ReadLine
Amount = CDbl(sr.ReadLine)
lstPercent.Items.Add(String.Format(fmtStr, category, amount/total))

category = sr.ReadLine
Amount = CDbl(sr.ReadLine)
lstPercent.Items.Add(String.Format(fmtStr, category, amount/total))

category = sr.ReadLine
Amount = CDbl(sr.ReadLine)
lstPercent.Items.Add(String.Format(fmtStr, category, amount/total))

category = sr.ReadLine
Amount = CDbl(sr.ReadLine)
lstPercent.Items.Add(String.Format(fmtStr, category, amount/total))

sr.Close()
```

Output:

```
Transportation16.72 %
Housing34.12 %
Food13.43 %
Other34.73 %
```