IST 256
Lab Week 9, Day 1, Monday, October 26, 2009

1. Understanding reading a file.

Assume that there is a text file named Employees.txt that contains data where each line has an employee name (with a first and last name), a gender code (either M or F).
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Read the following program fragment that will be executed as part of a button procedure.

```
Dim empname, gender as String
Dim number as Integer

FileOpen(1, "Employees.txt", OpenMode.Input)
text = "Employee  Years" & vbCrLf
number = 0
While Not EOF(1)
    Input(1, empname)
    Input(1, gender)
    number = number + 1
    If gender = "F" Then
        text = text & empname & vbCrLf
    End If
End While
Label1.Text = text
```

a. During the execution of the while loop, write here the successive values of the variables for each time the loop is executed:

Variable:	Value before loop:	Value 1st time loop	Value 2nd time loop	Value 3rd time loop	Value 4th time loop
number					
empname					
gender					

b. What will the label text look like as a result of this program? Write the lines in the space below:

2. Writing a program that reads data from a file (**This will be put into the same application as on Wednesday, October 21.**

a. Go to the C: drive and if the folder that you made last week isn't there any longer, make a folder at the top level with your name or userid, something like: C:\njmccrac.

Go to the H: drive where your IST256 projects are stored and find the folder called Candy, or FileCandy, whatever you named your project last week. Assume that it's called FileCandy for these instructions. Copy the entire folder under the new folder that you just made on the C: drive.

b. Open Visual Studio and do **not** click on the FileCandy project in your current project list. Instead, go to the file menu and select Open -> Project/Solution. When this Dialog box opens, browse to the File Candy folder that you just made on the C: drive – the path will be something like C:\njmccrac\FileCandy. In that folder, there should be a FileCandy solutions file (or there may be another level of FileCandy folder before you get to the actual files). Click on the solutions file. (If you can see file extensions, this file has a .sln extension, otherwise, look for the file with the icon with a little Visual Studio red and yellow icon on it.)

c. Now we will **extend the File Candy project to also write a file**. Pick the name of some candy that you put in your Candy.txt file, preferably one with at least 2 people who preferred it.   Suppose that the name of the candy is Snickers, then we are going to create a file called SnickersReport and we will write to it the names of the students who prefer Snickers candy bars.

Add a button to your form that says something like
                |__Write Snickers Report___|
But use the name of the candy from your input file wherever this says Snickers.

Like the first button, this button will also read the file Candy.txt, so the first thing you should do is go to your button program window and Copy/Paste the code from your first button to this new button. (Now there are two different buttons that read the file, and that's o.k.)

Now we can remove the code that makes the label and add code that will write an output file. You can refer to the code on the web page for TempAverageFromFile2 to see the commands for output files.

Add a second FileOpen command that will open a file called "SnickersReport.txt" for writing. (Or "C:\<yourpath>\SnickersReport.txt".) Pick a **different** number for this file. For example, if your input file is known as number 1, the output file can be known as number 2. (Note: It's probably good style to put the second FileOpen command on the line after the first one.)

Before the loop to read studentnames and candy from the input file, add two PrintLine commands to put a title in the file. (Check the TempAverageFromFile for how to do this.)

During the loop, after the Input commands to read studentname and candy, right before the end of the loop, add an If statement to test if the candy is Snickers and if it is, print the studentname to the output file. This can be something like:

```
If (candy = "Snickers") Then
    PrintLine(3, studentname)
End If
```

except make sure that your output file number is used in the PrintLine statement.

Add a FileClose statement at the end of the button code to close the output file.

d. Test your program. Go to the directory where you wanted to put the output file and open it with NotePad. Does it look like you expected?

*****************   **At the end of lab**   *********************

Go to the C: drive where you put your folder with your name. Copy and paste the entire FileCandy project folder to the H: drive under your IST256 projects.

***************   **Don't forget to save your work!**   ***************

On Wednesday, hand in this lab sheet, the two versions of the FileCandy program that you wrote, and a printout of your candy report file.