



Processing Lists of Data with Do Loops (Examples)

- 1. Phone Book Enquiry – (Lab sheet 6.3)
(Using Peek Method)
- 2. Find the sum of a series of number. – (Using Counters and Accumulators)
- 3. Password Checking –(Using Flags)
- 4. Nested Loops – (Lab sheet 6.6)



Lab sheet 6.3: Phone Number Enquiry

Phone Number

Name to look up:

txtName

btnDisplay

txtNumber

First, build the Form with the above layout



What is sr.Peek ?

- `Sr.peek` is the result of reading the text file.
- It will return the next character, if not available, it will return -1.

Lab sheet 6.3 : Phone Book



Enquiry

(Using Do-While Loop)

```
Do While (name <> txtName.Text) _  
        And (sr.Peek <> -1)  
    name = sr.ReadLine  
    phoneNum = sr.ReadLine  
Loop
```

As long as the name being searched for has **not been found** AND the end of the file has **not been reached**, the loop will **continue**

This make sure there is some text remains in the text file for the program to read.



Example : Phone Book Enquiry (Using Do ... Loop Until)

Do

```
name = sr.ReadLine
```

```
phoneNum = sr.ReadLine
```

```
Loop Until (name <> txtName.Text) _  
or (sr.Peek <> -1)
```

Until the name being searched
matches the data OR the end of the file
has been reached, the loop will **Stop**



Counters and Accumulators

- A **counter** is a numeric variable that keeps track of the number of items that have been processed.
- An **accumulator** is a numeric variable that totals numbers.
- In the following example, variable **CurrNum** is a counter while **Ans** is an accumulator.



Lab sheet 6.4: Find the sum of a series of number (Using Do-While Loop)

Sum of Number Range

Start

End

Calculate

Answer

txtstart

txtend

btnCalculate

txtAns

First, build the Form with the above layout



Sum of a series of number - Partial Code

```
Dim EndNo As Double
Dim Ans As Double
Dim CurrNum As Double
CurrNum = txtStart.Text
EndNo = txtEnd.Text
Ans = 0
Do While CurrNum <= EndNo
    Ans = Ans + CurrNum
    CurrNum = CurrNum + 1
Loop
txtAns.Text = Ans
```

Ans
is an
accumulator.
It is
used to
total up
the
values.

CurrNum is a counter,
it increases by 1 each
time through the loop