**Chapter 4 Notes**

Boolean returns true or false

**Relational Operators**

greater than >

less than <

greater than or equal >=

less than or equal <=

equal =

not equal <>

**2 choices**

grade = Val(Me.txtGrade.text)

If grade >=70 Then

 lblPass.Text = "You Pass"

Else

 lblPass.Text = "You Did Not Pass"

EndIf

**Multiple choices with one answer - ElseIf**

**If** grade >=93 Then

 lblLetterGrade.Text = "A"

ElseIf grade >=85 Then

 lblLetterGrade.Text = "B"

ElseIf grade >= 75 Then

 lblLetterGrade.Text = "C"

ElseIf grade >= 70 Then

 lblLetterGrade.Text = "D"

Else

 lblLetterGrade.Text = "F"

**EndIf**

**Multiple choices with separate if conditions**

 If grade >= 93 Then

 Me.lblGrade.Text = "You got an A!"

 End If

 If grade >= 85 Then

 Me.lblGrade.Text = "You got a B!"

 End If

 If grade >= 75 Then

 Me.lblGrade.Text = "You got a C !"

 End If

 If grade >= 70 Then

 Me.lblGrade.Text = "You got a D!"

 End If

 If grade < 70 Then

 Me.lblGrade.Text = "You got an F!"

 End If

**Logical Operators**

**and –** both conditions must be true **– if grade >=93 and grade <=100** then Me.lblGrade.Text = "You got an A!"

**or –** one condition must be true – **if guess < 1 or guess > 10** then Me.lblguess.Text = "Out of range."

**Random Numbers**

**Randomize()** – initializes the random number generator so that different random numbers are generated each time the program is run.

**Rnd()** generates a decimal number between 0 and .999999999.

**Equation to Generate a Random Integer**

This equation will generate a random number between 1 and a high number.

Dim rand As Integer

rand = Int(100 \* Rnd() +1) 'This generates a random number between 1 and 100.

**Count and total equations**

Dim count as Integer = 0 'Make this global at the top

Under the button or in the code, enter the equation **count = count + 1**

Each time the button is clicked, count will add 1.

Dim total as Integer = 0 'Make this global at the top

Under the button or in the code:

 Dim num as Integer

 num = Val(Me.txtNumber.Text)

 **total = total + num** ' Each time a number is entered, and the button clicked, num will be added to total