Tutorial 3

Lecture revision

1. What language constructs C# provides for conditional branching?
2. What comparison operators C# has?
3. Truth tables

Homework revision

Programming exercise I– Cruel games

1. Create new Windows application called CruelGames
2. Create an interface like this



Name the controls appropriately.

1. When the user clicks on the button the program should show a message:
   1. If “<21” is selected show “Sorry, you are too young for the Cruel Games”
   2. If “21 to 35” is selected show “Let’s rock”
   3. If “> 35” is selected show “You’re too old, grandpa”
2. Close the application

Programming exercise II– Have a guess

Your program should generate a random number and let user to guess it by answering if the number provided by user is

1. Create new Windows application called HaveAGuess
2. Add NumericUpDown control to grab user input
3. Create a global variable to hold the number (just declare a usual variable outside any Sub and it will be visible from any handler)
4. Generate random number on form load (hint: use a variable of type Random, and use Next() function of that variable to generate a random number)
5. Add a NumericUpDown control and a Button. When the button is clicked compare the number entered into the NumericUpDown with the recorded one. Display one of the messages:
   1. My number is more
   2. My number is less
   3. You are right!!!

depending on the guess.

1. Close program after successful guess

Programming exercise III– Leap year

A year with 366 days is called a leap year. A year is a leap year if it is divisible by four (for example, 1980). However, a year is not a leap year if it is divisible by 100 (for example 1900); though it is a leap year if it is divisible by 400 (for example 2000). Moreover since the introduction of the Gregorian calendar is dated October 15, 1582, there was no leap years before that date. Write a program that prompts the user for a year and then computes whether that year is a leap year

1. Create new Windows application called LeapYear
2. Add NumericUpDown to grab user input
3. Add one button that will perform the logic and prompt (via MsgBox) if the year entered is leap or not

Home work

Integer textbox

1. Create new Windows application called IntegerTextbox
2. Add textbox to form
3. Create handler for KeyPress event of the text box and check for input (e.KeyChar property)
4. If input is incorrect – ignore user input by setting e.Handled = True
5. Run the program and see the result