For this assignment, you will create a Windows Forms application using Visual Basic (NOT VBA, which is for VB programs embedded in or attached to, an MS Office application such as Word).

Create a WF application that creates a Bouncing Ball.

**The Bouncing Ball Program**

1. Creates a graphics window
2. Has 1 or more buttons to:
   1. Start the operations below
   2. Stop the operations below
   3. Set the speed of the ball
   4. Set the initial angle of the ball from its rest position
3. Draws a blue ball (approximately 1/4 inch in diameter) that moves inside the graphics window at a pre-selected velocity and bounces off its borders. The ball moves when the “start” button is clicked. The ball is NOT allowed to extend beyond the Client Area of the window.
4. Allows user to change speed of ball while it is moving.
5. Allows user to change direction (using an angle (in degrees) based on the standard x-y coordinate system – 0 degrees is to the right along the x-axis, 180 degrees is to the left on the x-axis)
6. Allows user to stop the ball (which stays where it is) and change the initial angle (and speed if desired) before restarting it.
7. Responds to form’s Resize event to reset ball’s position to the corresponding position in the new window (if the window is enlarged on the right, the ball moves to a position that is where it was relative to the right border, etc.)
8. Responds to the Timer Tick event to redraw the ball in its new position
9. After each timer tick and after window is resized
   1. Checks for collisions with sides of window and adjusts ball’s path
10. Class level variables (accessible to all class methods):
    1. xC, yC: current coordinates of ball’s center
    2. xDelta, yDelta: x,y components of velocity
    3. iXSize, iYSize: dimensions of window’s client area
11. Contains a function named DrawBall( ) (Here is where the hard work gets done)
    1. Uses the Form’s CreateGraphics() method to get a Graphics object
    2. Draws blue ball in new position.
    3. Allows for change of angle and speed

You do NOT have to allow for ball hardness, ball/wall deformation, wall friction, etc. Any of these MAY be added for extra credit.

Sample code in C# (which you will have to convert to VB) is available at [Ball-Timer-CS-example.htm](../Examples/Ball-Timer-CS-example.htm)