**Computer Programming - Shooter Program** - 25 Points

This program allows you to move a character around the form and shoot a bullet in whatever direction you are facing. You can only shoot one bullet at a time. Once the bullet leaves the form, you are allows to shoot again.



**Part I. The Form**

 bullet(Label) shooter (PictureBox)

bullet Properties: Size (3, 3) Shooter Properties - Sizemode - StretchImage Size (50,75)

All images are found on the share drive in the Computer Programming\Images\Timer Images folder. They are called *stickup, stickdown, stickleft* and *stickright.png*.

You also need a Timer object with the following property settings:

 name: BulletTimer Enabled - False Interval - 10

**Part II. Variables**

Dim dir As String = "up" 'Controls the direction the player is facing

Dim bulletDir As String 'Controls the direction the bullet is traveling

**Part III. Events and Code**

Private Sub Form1\_KeyDown(sender As Object, e As System.Windows.Forms.KeyEventArgs) Handles Me.KeyDown

 If e.KeyCode = Keys.W Then

 shooter.Location = New Point(shooter.Location.X, shooter.Location.Y - 5)

 shooter.Image = Image.FromFile("stickup.png")

 dir = "up"

 ElseIf e.KeyCode = Keys.S Then

 shooter.Location = New Point(shooter.Location.X, shooter.Location.Y + 5)

 shooter.Image = Image.FromFile("stickdown.png")

 dir = "down"

 ElseIf e.KeyCode = Keys.A Then

 shooter.Location = New Point(shooter.Location.X - 5, shooter.Location.Y)

 shooter.Image = Image.FromFile("stickleft.png")

 dir = "left"

 ElseIf e.KeyCode = Keys.D Then

 shooter.Location = New Point(shooter.Location.X + 5, shooter.Location.Y)

 shooter.Image = Image.FromFile("stickright.png")

 dir = "right"

 ElseIf e.KeyCode = Keys.Space Then

 shoot()

 End If

 End Sub

Public Sub shoot()

 If bulletTimer.Enabled = False Then

 bulletDir = dir

 If bulletDir = "left" Then

 bullet.Location = New Point(shooter.Location.X, shooter.Location.Y + 28)

 End If

 If bulletDir = "right" Then

 bullet.Location = New Point(shooter.Location.X + shooter.Size.Width, shooter.Location.Y + 28)

 End If

 If bulletDir = "up" Then

 bullet.Location = New Point(shooter.Location.X + shooter.Size.Width / 2, shooter.Location.Y)

 End If

 If bulletDir = "down" Then

 bullet.Location = New Point(shooter.Location.X + shooter.Size.Width / 2 - 2, shooter.Location.Y + shooter.Size.Height)

 End If

 bulletTimer.Start()

 End If

End Sub

Private Sub bulletTimer\_Tick(sender As System.Object, e As System.EventArgs) Handles bulletTimer.Tick

 If bulletDir = "up" Then

 bullet.Location = New Point(bullet.Location.X, bullet.Location.Y - 5)

 End If

 If bulletDir = "down" Then

 bullet.Location = New Point(bullet.Location.X, bullet.Location.Y + 5)

 End If

 If bulletDir = "left" Then

 bullet.Location = New Point(bullet.Location.X - 5, bullet.Location.Y)

 End If

 If bulletDir = "right" Then

 bullet.Location = New Point(bullet.Location.X + 5, bullet.Location.Y)

 End If

 If bullet.Location.X < 0 Or bullet.Location.X > Me.Size.Width Or bullet.Location.Y < 0 Or bullet.Location.Y > Me.Size.Height Then

 bulletTimer.Stop()

 End If

End Sub

The idea behind the program is that when the spacebar is pressed the direction of the bullet is set to the direction of the shooter and also positioned appropriately based on the direction. The timer is started, which moves the bullet until it leaves the form, at which time the timer is stopped.

