/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* FILENAME: RAINBOW PONG.EXE

\*

\* DESCRIPTION: THIS IS A BASIC PONG GAME, BUT INSTEAD, EVERY 5 POINTS,

\* THE BACKGROUND CHANGES INTO A RANDOM COLOR.

\*

\*

\* AUTHOR: ALECIA C. JENNINGS START DATE: JUNE 8, 2018

\*/

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

using System.Windows.Forms;

namespace XtremePong

{

public partial class form1 : Form

{

//Declaring all variables in the public class

bool keyUp;

bool keyDown;

int speed = 10;

int ballX = 15;

int ballY = 15;

int playerScore = 0;

int cpuScore = 0;

Random rnd = new Random();

const double PADDLESPEED = 0.9;

public form1()

{

InitializeComponent();

}

private void form1\_Load(object sender, EventArgs e)

{

}

private void keyIsUp(object sender, KeyEventArgs e)

{

//If case detecting if the player is holding the up or down key.

if (e.KeyCode == Keys.Up)

{

keyUp = false;

}

if (e.KeyCode == Keys.Down)

{

keyDown = false;

}

}

private void keyIsDown(object sender, KeyEventArgs e)

{

if (e.KeyCode == Keys.Up)

{

keyUp = true;

}

if (e.KeyCode == Keys.Down)

{

keyDown = true;

}

}

private void timerTick(object sender, EventArgs e)

{

//Timer event tha runs every 20 milliseconds

labelPlayerScore.Text = "" + playerScore;

labelCpuScore.Text = "" + cpuScore;

//Updates the score

ball.Top -= ballY;

ball.Left -= ballX;

//Make the cpu paddle chase the ball

if (ball.Right >= 250)

{

if (ball.Top > cpu.Top )

{

cpu.Top += speed;

}

else if (ball.Top < cpu.Top)

{

cpu.Top -= speed;

}

}

//Check the score

//If the ball hits the player goal

if (ball.Left < 0)

{

//Resets the ball, changes its direction, and sets the score, and changed BG color.

ball.Left = 358;

ball.Top = 271;

ballY = 0;

ballX = 0;

ballX -= 15;

ballY += 15;

cpuScore++;

Color randomColor = Color.FromArgb(rnd.Next(256), rnd.Next(256), rnd.Next(256));

BackColor = randomColor;

}

if (ball.Left + ball.Width > ClientSize.Width)

{

ball.Left = 358;

ball.Top = 271;

ballY = 0;

ballX = 0;

ballY += 15;

ballX -= 15;

playerScore++;

Color randomColor = Color.FromArgb(rnd.Next(256), rnd.Next(256), rnd.Next(256));

BackColor = randomColor;

}

if (ball.Top < 0 || ball.Top + ball.Height > ClientSize.Height)

{

//Makes the ball bounce on the screen

ballY = -ballY;

}

if (ball.Bounds.IntersectsWith(player1.Bounds) || ball.Bounds.IntersectsWith(cpu.Bounds))

{

//Bounces the ball upon collision with the paddles

ballX = -ballX;

}

if (keyUp == true && player1.Top > 0)

{

//Move the player paddle up toward the top.

player1.Top -= 10;

}

if (keyDown == true && player1.Top < 455)

{

//Move the player paddle down toward the bottom

player1.Top += 10;

}

}

}

}