**Játékprogi (grafikus felületen)**

**Form1.cs**

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 game2025bestof

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

List<labda> labdalista = new List<labda>();

labda jatekos = new labda(100,100,0,0,10);

int egerx = 100;

int egery = 100;

Random r = new Random();

private void button2\_Click(object sender, EventArgs e)

{

randomlabda();

}

BufferedGraphicsContext currentContext;

BufferedGraphics myBuffer;

public void randomlabda() {

int veletlenx = r.Next(1, pictureBox1.Width - 10);

int veletleny = r.Next(1, pictureBox1.Height - 10);

int veletleniranyx = r.Next(-6, 6);

int veletleniranyy = r.Next(-6, 6);

labda l = new labda(veletlenx, veletleny, veletleniranyx, veletleniranyy, 10);

labdalista.Add(l);

label1.Text = labdalista.Count.ToString();

}

long frame = 0;

private void timer1\_Tick(object sender, EventArgs e)

{

frame++;

if (frame%100==0)

{

for (int i = 0; i < 10; i++)

{

randomlabda();

}

jatekos.meret /= 2;

if (jatekos.meret<4)

{

frame = 0;

labdalista.Clear();

jatekos.meret = 10;

}

}

label1.Text = frame.ToString();

//létrehozom az eszközöket, vászon, ecset stb

currentContext = BufferedGraphicsManager.Current;

myBuffer = currentContext.Allocate(pictureBox1.CreateGraphics(), this.DisplayRectangle);

Brush br = new SolidBrush(Color.White);

Brush br2 = new SolidBrush(Color.Blue);

myBuffer.Graphics.Clear(Color.SeaGreen);

Image newImage = Image.FromFile("viz.jpg");

myBuffer.Graphics.DrawImage(newImage,0,0,pictureBox1.Width,pictureBox1.Height);

if (frame < 3)

{

Font f = new Font(new FontFamily("Arial"), 16, FontStyle.Regular, GraphicsUnit.Pixel);

myBuffer.Graphics.DrawString("Elkezdődött!!!",f,br,100,100);

}

else

{

//pattanás

for (int i = 0; i < labdalista.Count; i++)

{

//jobb szél:

if (labdalista[i].x > pictureBox1.Width)

{

labdalista[i].iranyx \*= -1;

}

//bal szél:

if (labdalista[i].x < 0)

{

labdalista[i].iranyx \*= -1;

}

//alsó szél:

if (labdalista[i].y > pictureBox1.Height)

{

labdalista[i].iranyy \*= -1;

}

//felső szél:

if (labdalista[i].y < 0)

{

labdalista[i].iranyy \*= -1;

}

//labda találat

for (int j = i + 1; j < labdalista.Count; j++)

{

if (labdalista[i].talalat(labdalista[j]))

{

int elozox = labdalista[i].x - labdalista[i].iranyx;

int elozoy = labdalista[i].y - labdalista[i].iranyy;

int elozox2 = labdalista[j].x - labdalista[j].iranyx;

int elozoy2 = labdalista[j].y - labdalista[j].iranyy;

if ( elozoy!= labdalista[j].y)

{

labdalista[i].iranyy \*= -1;

labdalista[j].iranyy \*= -1;

}

if (elozoy != labdalista[j].x)

{

labdalista[i].iranyx \*= -1;

labdalista[j].iranyx \*= -1;

}

}

}

}

//mozgatok

for (int i = 0; i < labdalista.Count; i++)

{

labdalista[i].x += labdalista[i].iranyx;

labdalista[i].y += labdalista[i].iranyy;

}

jatekos.x = (egerx + 19 \* jatekos.x) / 20;

jatekos.y = (egery + 19 \* jatekos.y) / 20;

//jatékos találat

for (int i = 0; i < labdalista.Count; i++)

{

if (jatekos.talalat(labdalista[i]))

{

jatekos.meret += labdalista[i].meret/2;

if (labdalista.Count>0)

{

labdalista.RemoveAt(i);

}

// labdalista[i].iranyx \*= -1;

//labdalista[i].iranyy \*= -1;

}

}

if (labdalista.Count <= 0)

{

for (int i = 0; i < r.Next(1, 10); i++)

{

randomlabda();

}

}

//kirajzolok

for (int i = 0; i < labdalista.Count; i++)

{

myBuffer.Graphics.FillEllipse(new SolidBrush(labdalista[i].szin), labdalista[i].x, labdalista[i].y, labdalista[i].meret, labdalista[i].meret);

}

myBuffer.Graphics.FillEllipse(br2, jatekos.x - jatekos.meret / 2, jatekos.y - jatekos.meret / 2, jatekos.meret, jatekos.meret);

}

myBuffer.Render();

}

private void button1\_Click(object sender, EventArgs e)

{

timer1.Start();

timer1.Interval = 50;

}

private void pictureBox1\_MouseMove(object sender, MouseEventArgs e)

{

egerx = e.X;

egery = e.Y;

}

private void button1\_KeyDown(object sender, KeyEventArgs e)

{

int sebesseg = 10;

switch (e.KeyCode)

{

case Keys.A:

jatekos.x -= sebesseg ;

break;

case Keys.W:

jatekos.y -= sebesseg; ;

break;

case Keys.D:

jatekos.x+=sebesseg;

break;

case Keys.S:

jatekos.y+=sebesseg;

break;

}

}

private void Form1\_Load(object sender, EventArgs e)

{

}

}

}

**Form1.Designer.cs**

namespace game2025bestof

{

partial class Form1

{

/// <summary>

/// Required designer variable.

/// </summary>

private System.ComponentModel.IContainer components = null;

/// <summary>

/// Clean up any resources being used.

/// </summary>

/// <param name="disposing">true if managed resources should be disposed; otherwise, false.</param>

protected override void Dispose(bool disposing)

{

if (disposing && (components != null))

{

components.Dispose();

}

base.Dispose(disposing);

}

#region Windows Form Designer generated code

/// <summary>

/// Required method for Designer support - do not modify

/// the contents of this method with the code editor.

/// </summary>

private void InitializeComponent()

{

this.components = new System.ComponentModel.Container();

this.pictureBox1 = new System.Windows.Forms.PictureBox();

this.button1 = new System.Windows.Forms.Button();

this.timer1 = new System.Windows.Forms.Timer(this.components);

this.label1 = new System.Windows.Forms.Label();

this.button2 = new System.Windows.Forms.Button();

((System.ComponentModel.ISupportInitialize)(this.pictureBox1)).BeginInit();

this.SuspendLayout();

//

// pictureBox1

//

this.pictureBox1.Location = new System.Drawing.Point(9, 51);

this.pictureBox1.Margin = new System.Windows.Forms.Padding(2, 2, 2, 2);

this.pictureBox1.Name = "pictureBox1";

this.pictureBox1.Size = new System.Drawing.Size(749, 440);

this.pictureBox1.SizeMode = System.Windows.Forms.PictureBoxSizeMode.StretchImage;

this.pictureBox1.TabIndex = 0;

this.pictureBox1.TabStop = false;

//this.pictureBox1.Click += new System.EventHandler(this.pictureBox1\_Click);

this.pictureBox1.MouseMove += new System.Windows.Forms.MouseEventHandler(this.pictureBox1\_MouseMove);

//

// button1

//

this.button1.BackColor = System.Drawing.Color.OrangeRed;

this.button1.Font = new System.Drawing.Font("Microsoft Sans Serif", 12F, System.Drawing.FontStyle.Regular, System.Drawing.GraphicsUnit.Point, ((byte)(238)));

this.button1.ForeColor = System.Drawing.SystemColors.ButtonHighlight;

this.button1.Location = new System.Drawing.Point(9, 5);

this.button1.Margin = new System.Windows.Forms.Padding(2, 2, 2, 2);

this.button1.Name = "button1";

this.button1.Size = new System.Drawing.Size(69, 30);

this.button1.TabIndex = 1;

this.button1.Text = "Start!!!";

this.button1.UseVisualStyleBackColor = false;

this.button1.Click += new System.EventHandler(this.button1\_Click);

this.button1.KeyDown += new System.Windows.Forms.KeyEventHandler(this.button1\_KeyDown);

//

// timer1

//

this.timer1.Tick += new System.EventHandler(this.timer1\_Tick);

//

// label1

//

this.label1.AutoSize = true;

this.label1.Font = new System.Drawing.Font("Microsoft Sans Serif", 12F, System.Drawing.FontStyle.Regular, System.Drawing.GraphicsUnit.Point, ((byte)(238)));

this.label1.ForeColor = System.Drawing.SystemColors.ButtonHighlight;

this.label1.Location = new System.Drawing.Point(182, 10);

this.label1.Margin = new System.Windows.Forms.Padding(2, 0, 2, 0);

this.label1.Name = "label1";

this.label1.Size = new System.Drawing.Size(51, 20);

this.label1.TabIndex = 2;

this.label1.Text = "label1";

//this.label1.Click += new System.EventHandler(this.label1\_Click);

//

// button2

//

this.button2.BackColor = System.Drawing.Color.MidnightBlue;

this.button2.Font = new System.Drawing.Font("Microsoft Sans Serif", 12F, System.Drawing.FontStyle.Regular, System.Drawing.GraphicsUnit.Point, ((byte)(238)));

this.button2.ForeColor = System.Drawing.SystemColors.ButtonHighlight;

this.button2.Location = new System.Drawing.Point(82, 5);

this.button2.Margin = new System.Windows.Forms.Padding(2, 2, 2, 2);

this.button2.Name = "button2";

this.button2.Size = new System.Drawing.Size(83, 30);

this.button2.TabIndex = 3;

this.button2.Text = "Új Labda";

this.button2.UseVisualStyleBackColor = false;

this.button2.Click += new System.EventHandler(this.button2\_Click);

this.button2.KeyDown += new System.Windows.Forms.KeyEventHandler(this.button1\_KeyDown);

//

// Form1

//

this.AutoScaleDimensions = new System.Drawing.SizeF(6F, 13F);

this.AutoScaleMode = System.Windows.Forms.AutoScaleMode.Font;

this.BackColor = System.Drawing.Color.DarkCyan;

this.ClientSize = new System.Drawing.Size(767, 500);

this.Controls.Add(this.button2);

this.Controls.Add(this.label1);

this.Controls.Add(this.button1);

this.Controls.Add(this.pictureBox1);

this.Margin = new System.Windows.Forms.Padding(2, 2, 2, 2);

this.Name = "Form1";

this.Text = "Form1";

this.Load += new System.EventHandler(this.Form1\_Load);

((System.ComponentModel.ISupportInitialize)(this.pictureBox1)).EndInit();

this.ResumeLayout(false);

this.PerformLayout();

}

#endregion

private System.Windows.Forms.PictureBox pictureBox1;

private System.Windows.Forms.Button button1;

private System.Windows.Forms.Timer timer1;

private System.Windows.Forms.Label label1;

private System.Windows.Forms.Button button2;

}

}

**labda.cs**

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

using System.Drawing;

namespace game2025bestof

{

class labda

{

public int x;

public int y;

public int iranyx;

public int iranyy;

public int meret;

public Color szin;

public labda(int x, int y, int iranyx, int iranyy, int meret)

{

this.x = x;

this.y = y;

this.iranyx = iranyx;

this.iranyy = iranyy;

this.meret = meret;

Random r = new Random();

this.szin = Color.FromArgb(r.Next(0,256), r.Next(0, 256), r.Next(0, 256));

}

public bool talalat(labda l) {

if (Math.Abs(this.x-l.x)<this.meret/2 && Math.Abs(this.y - l.y) < this.meret/2)

{

return true;

}

else

{

return false;

}

}

}

**Program.cs**

using System;

using System.Collections.Generic;

using System.Linq;

using System.Threading.Tasks;

using System.Windows.Forms;

namespace game2025bestof

{

static class Program

{

/// <summary>

/// The main entry point for the application.

/// </summary>

[STAThread]

static void Main()

{

Application.EnableVisualStyles();

Application.SetCompatibleTextRenderingDefault(false);

Application.Run(new Form1());

}

}

}