

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;
                }
            }
        }
    }
}
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    }
    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 találalat
            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;
                    }
                }
            }
        }
    }
}

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        //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;

        //játékos 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;
    }
}

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        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);
        }
    }
}

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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 = "Üj 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.AutoScaleModeMode.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);

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        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());
        }
    }
}
```