Explicatie C# pas cu pas al codului:

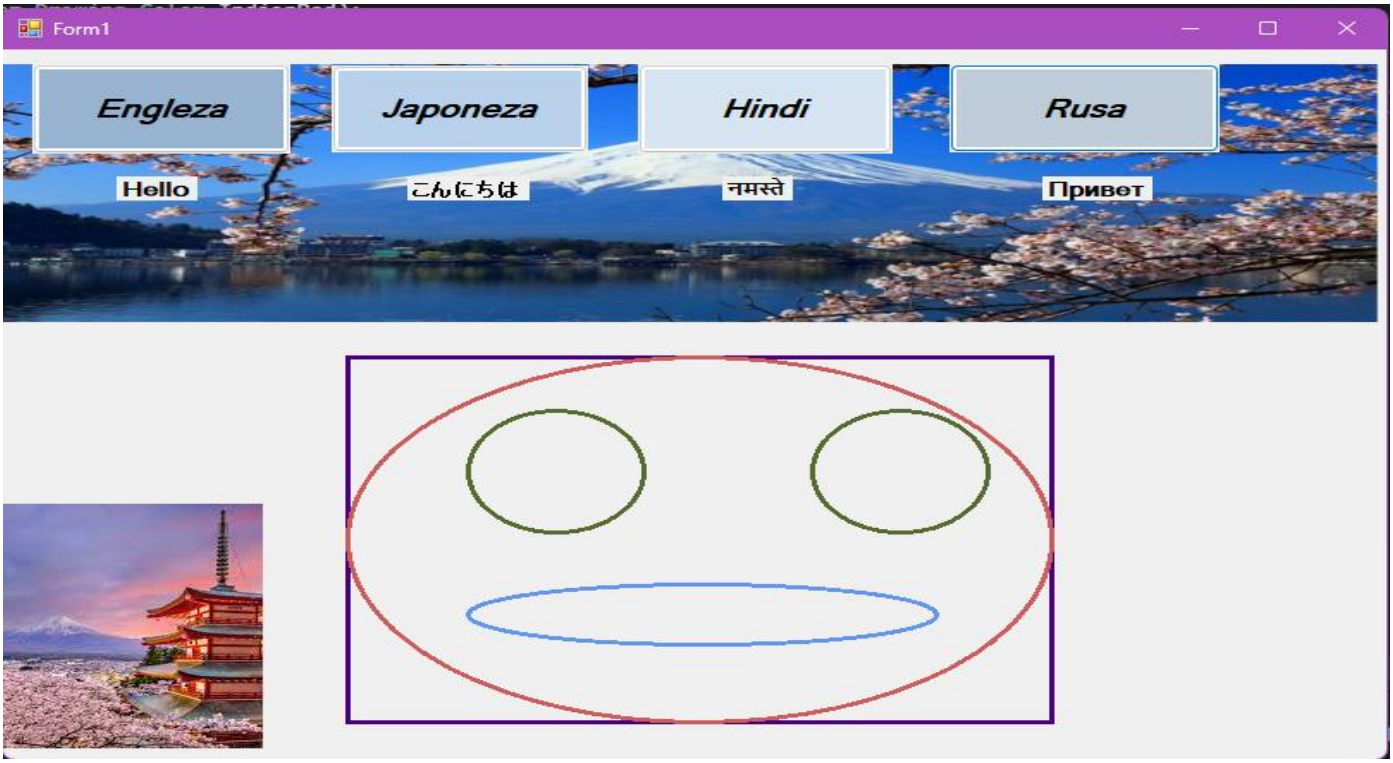
In C# am inceput prin introducerea a 4 butoane care, prin apasarea acestora, vor afisa in 4 label-uri diferite mesajul “Salut” tradus in limbile corespunzatoare fiecarui buton.

```
1 reference
public Form1()
{
    InitializeComponent();
}

1 reference
private void button1_Click(object sender, EventArgs e)
{
    this.label1.Text = "Hello";
}

1 reference
private void button2_Click(object sender, EventArgs e)
{
    this.label2.Text = "こんにちは";
}

1 reference
private void button3_Click(object sender, EventArgs e)
{
    this.label3.Text = "नमस्ते";
}

1 reference
private void button4_Click(object sender, EventArgs e)
{
    this.label4.Text = "Привет";
}
```

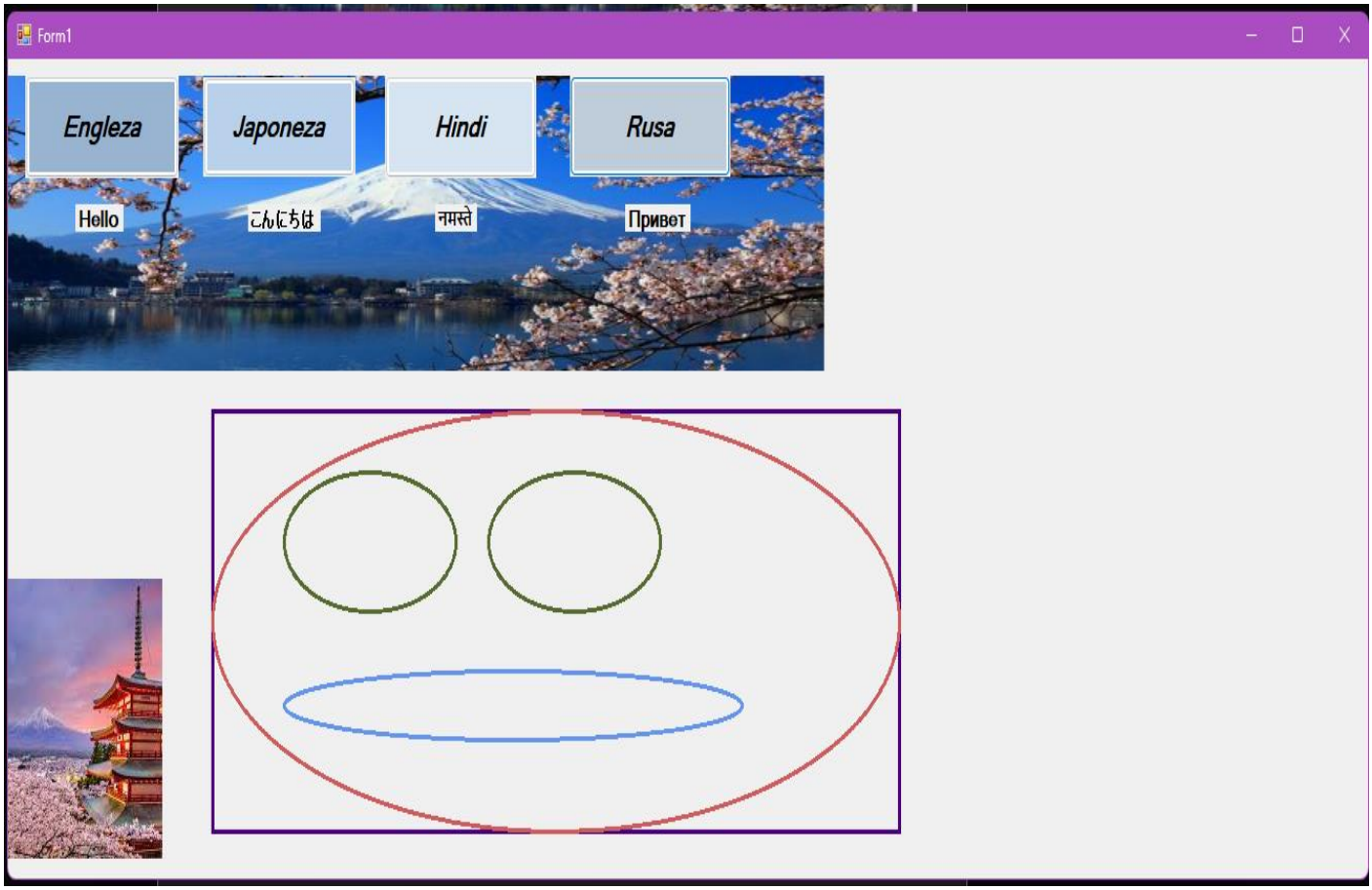
Am introdus de asemenea si 5 figuri geometrice autoscalabile: un patrat si 4 cercuri. Am folosit diferite culori pentru distinctia acestora, iar creioanele folosite le-am ingrosat “amprenta”, astfel pentru a fi accentuate figurile geometrice.

```
1 reference
private void Form1_Paint(object sender, PaintEventArgs e)
{
    System.Drawing.Graphics desen;
    desen = this.CreateGraphics();
    System.Drawing.Pen creion_mov, creion_rosu, creion_verde, creion_albatru;
    creion_albatru = new System.Drawing.Pen(System.Drawing.Color.CornflowerBlue);
    creion_mov = new System.Drawing.Pen(System.Drawing.Color.Indigo);
    creion_rosu = new System.Drawing.Pen(System.Drawing.Color.IndianRed);
    creion_verde = new System.Drawing.Pen(System.Drawing.Color.DarkOliveGreen);
    desen.Clear(this.BackColor);
    Pen thickPen_m = new Pen(Color.Indigo, 3.0f);
    Pen thickPen_r = new Pen(Color.IndianRed, 3.0f);
    Pen thickPen_a = new Pen(Color.CornflowerBlue, 3.0f);
    Pen thickPen_v = new Pen(Color.DarkOliveGreen, 3.0f);

    int w, h;
    w = this.Width - 2 * SystemInformation.BorderSize.Width;
    h = this.Height - SystemInformation.CaptionHeight - SystemInformation.BorderSize.Width;
    desen.DrawRectangle(thickPen_m, 200, 230, w / 2, h / 2);
    desen.DrawEllipse(thickPen_r, 200, 230, w /2, h / 2);
    desen.DrawEllipse(thickPen_v, 470, 270, w /8, h / 6);
    desen.DrawEllipse(thickPen_v, 270, 270, w /8, h / 6);
    desen.DrawEllipse(thickPen_a, 270, 400, w /3, h / 12);




}
```

In urma codului, se va afisa:



==========



Explicatie C++ pas cu pas al codului:

Am folosit 4 tipuri de variabile: *char, int, long long si float*. Am folosit variabila de tip ‘char’ pentru a afisa un text la inceputul terminalului de executie, am afisat prin intermediul variabilei ‘int’ un interval inchis reprezentat printr-un vector, am verificat prin intermediul variabilelor de tip ‘float’ daca prima variabila introdusa este patratul celei de a doua variabile introdusa, iar ultima variabila folosita a fost de tip ‘long long’ , aceasta afisand forma binara a numarului introdus.

Codul C++ :

```cpp
#include <iostream>
#include <cstring>
#include <cmath>
#include <chrono>
#include <thread>
using namespace std;

void afis_bin_lumini(long long n) {
    int v[1000], k = 0, j;

    while (n) {
        v[k++] = n % 2;
        n = n / 2;
    }
    cout << "Forma binara a lui n este urmatoarea:" << ' ';

    for (j = k - 1; j >= 0; j--)
    {
        if (v[j] == 1)
            cout << "■ ";
        else
            cout << "□ ";
        cout.flush();
        this_thread::sleep_for(chrono::milliseconds(500));
    }

    cout << endl << endl;
}

int main() {


    char s[100] = "* Buna! Eu sunt Miruna, iar acesta este proiectul meu in limbajul C++.";
    cout << s << endl;
    cout << endl;



    int v[100], i;
    cout << "* Aici am construit un vector ce contine numere din intervalul [1,10]:" << ' ';
    cout << '(' << ' ';
    for (i = 0; i < 9; i++) {
        v[i] = i + 1;
        cout << v[i] << ' ' << ',';
    }
    cout << "10" << ')' << endl;
    cout << endl;
```

```cpp
    float a, b, ok = 0;
    cout << "* Se se afiseze 'Adevarat' daca a este patratul perfect al lui b si 'Fals' daca a nu este patratul perfect al lui b" << endl;
    cout << "Introduceti doua valori pentru a, respectiv b:";
    cin >> a >> b;
    cout << endl;
    cout <<' '<< "Este a patratul perfect al lui b?" << ' ';
    if (b == sqrt(a))
        ok = 1;
    if (ok == 0)
        cout << "Fals!" << endl;
    else cout << "Adevarat!" << endl;
    cout << endl;



    long long n;
    cout << "* Introduceti o valoare pentru n=" << ' ';
    cin >> n;
    afis_bin_lumini(n);



    return 0;
}
```

Fereastra de executie: