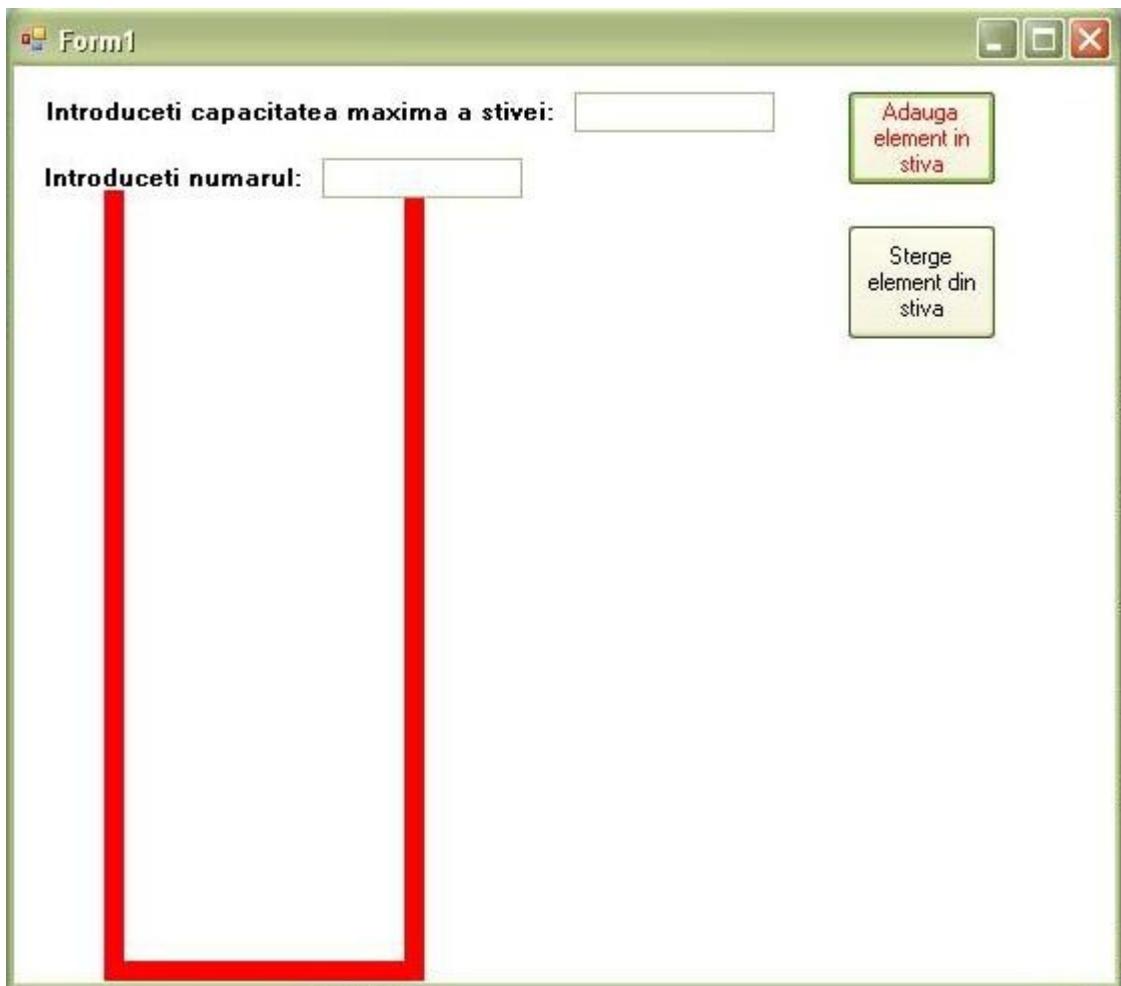


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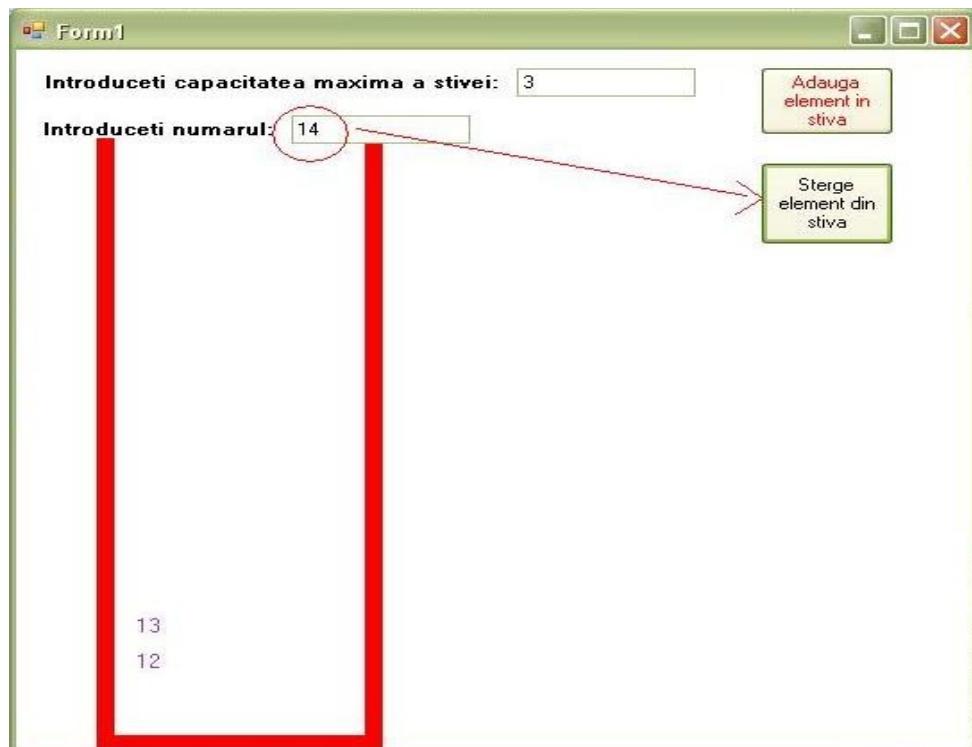
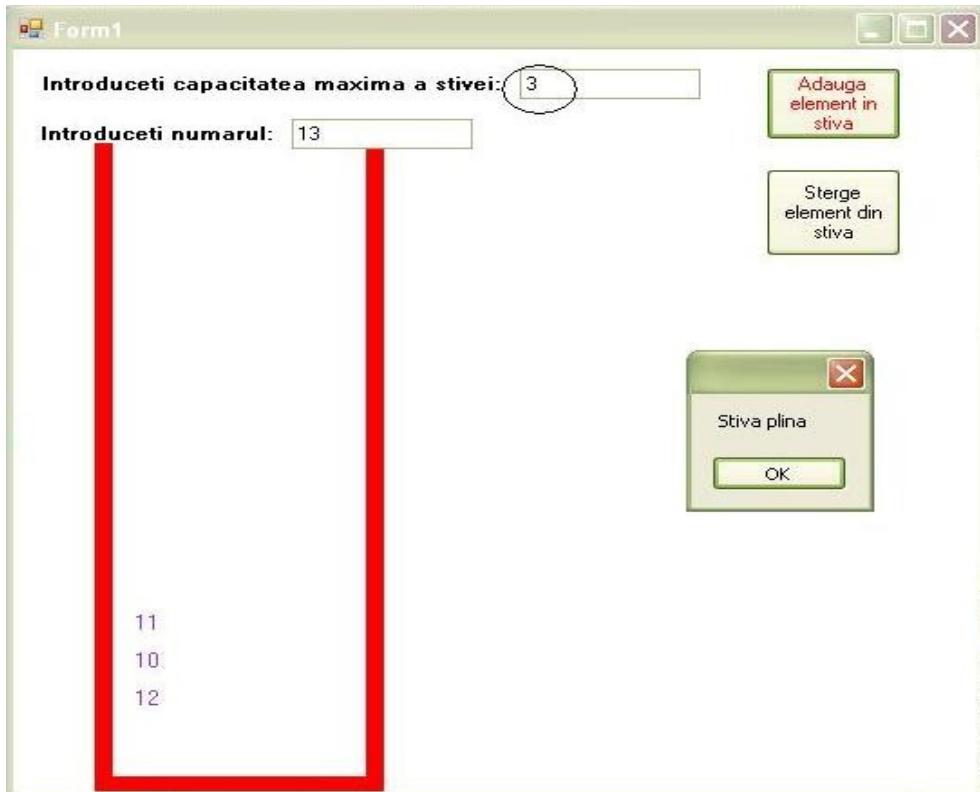
Operatii pop si push-stiva

Aplicatia realizata in Microsoft Visual Studio C++ 2010 permite simularea operatiilor de introducere si extragere a elementelor dintr-o structura de tip stiva.Pentru aceasta am folosit doua butoane care permit introducerea si extragerea elementelor.Utilizatorul trebuie sa introduca capacitatea maxima a stivei precum si elementele care se vor introduce.In cazul in care stiva e plina va aparea un mesaj de eroare si nu se vor mai putea introduce alte elemente.Totodata in cazul in care dorim sa stergem un element dar nu avem niciunul in stiva, utilizatorul va fi anuntat ca stiva e goala si ca defapt acesta incearca sa stearga un element care nu exista.Stergerea elementelor presupune defapt desenarea peste element a unui dreptunghi de culoarea backgroundului.

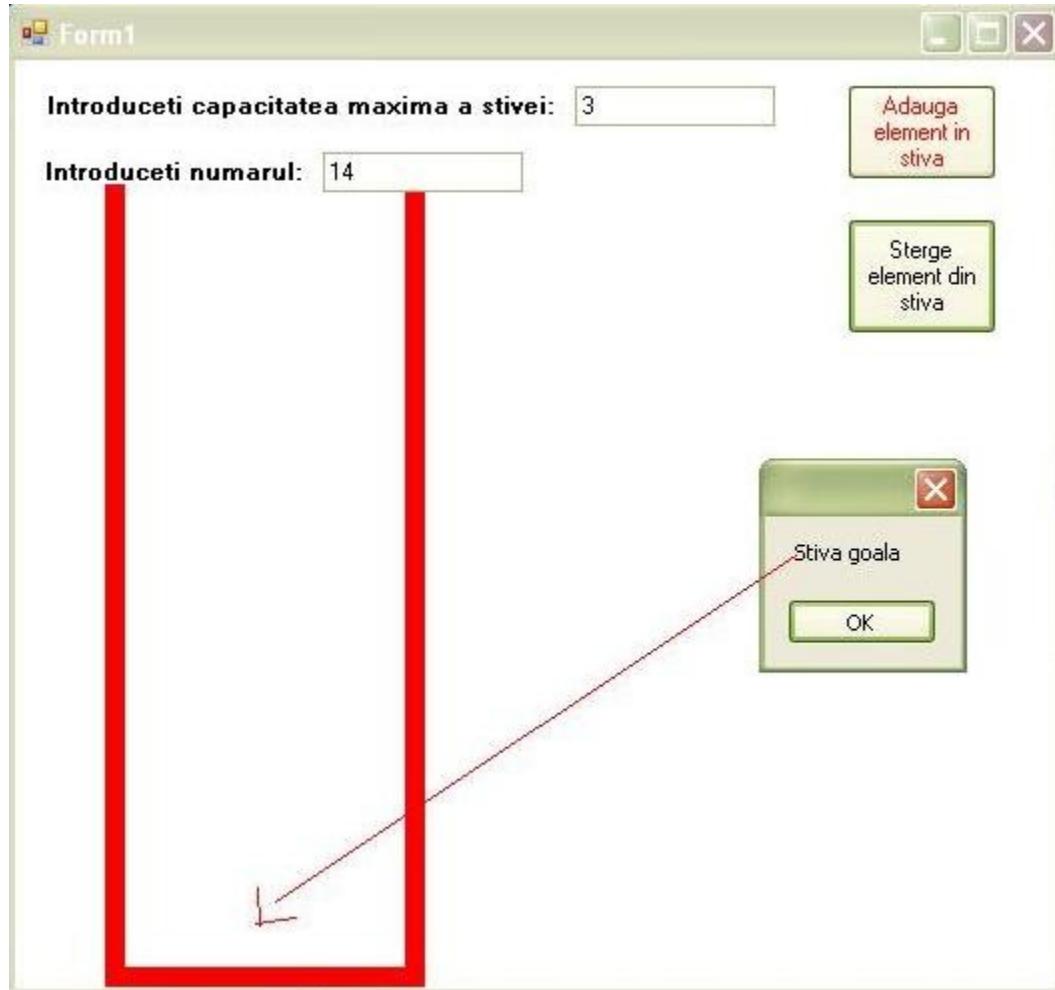
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Codul sursa:

```
#pragma once

namespace incercare_stergeredesen {

    using namespace System;
    using namespace System::ComponentModel;
    using namespace System::Collections;
    using namespace System::Windows::Forms;
    using namespace System::Data;
    using namespace System::Drawing;
```

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```
/// <summary>
/// Summary for Form1
/// </summary>
public ref class Form1 : public System::Windows::Forms::Form
{
public:
    Form1(void)
    {
        InitializeComponent();
        //
        //TODO: Add the constructor code here
        //
    }

protected:
    /// <summary>
    /// Clean up any resources being used.
    /// </summary>
~Form1()
{
    if (components)
    {
        delete components;
    }
}
private: System::Windows::Forms::Button^ button1;
private: System::Windows::Forms::Button^ button2;
private: System::Windows::Forms::Label^ label1;
private: System::Windows::Forms::TextBox^ textBox1;
protected:

private:
    /// <summary>
    /// Required designer variable.
    /// </summary>
System::ComponentModel::Container ^components;

    static System::Drawing::Graphics^ Desen;
    static System::Drawing::SolidBrush^ Pensula;
    static System::Drawing::SolidBrush^ Pensula1;
    static System::Drawing::Pen^ Creion_rosu;
    static int i=1,nr,h,j,maxd=0,h2,k=1,m=0,l;
    static int max;
    static array < int >^ numere = gcnew array < int > (30);

private: System::Windows::Forms::Label^ label2;
private: System::Windows::Forms::TextBox^ textBox2;

#pragma region Windows Form Designer generated code
/// <summary>
```

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```
/// Required method for Designer support - do not modify
/// the contents of this method with the code editor.
/// </summary>
void InitializeComponent(void)
{
    this->button1 = (gcnew System::Windows::Forms::Button());
    this->button2 = (gcnew System::Windows::Forms::Button());
    this->label1 = (gcnew System::Windows::Forms::Label());
    this->textBox1 = (gcnew System::Windows::Forms::TextBox());
    this->label2 = (gcnew System::Windows::Forms::Label());
    this->textBox2 = (gcnew System::Windows::Forms::TextBox());
    this->SuspendLayout();
    //
    // button1
    //
    this->button1->ForeColor = System::Drawing::Color::Red;
    this->button1->Location = System::Drawing::Point(416, 12);
    this->button1->Name = L"button1";
    this->button1->Size = System::Drawing::Size(75, 48);
    this->button1->TabIndex = 0;
    this->button1->Text = L"Adauga element in stiva";
    this->button1->UseVisualStyleBackColor = true;
    this->button1->Click += gcnew System::EventHandler(this,
&Form1::button1_Click);
    //
    // button2
    //
    this->button2->Location = System::Drawing::Point(416, 79);
    this->button2->Name = L"button2";
    this->button2->Size = System::Drawing::Size(75, 58);
    this->button2->TabIndex = 1;
    this->button2->Text = L"Sterge element din stiva";
    this->button2->UseVisualStyleBackColor = true;
    this->button2->Click += gcnew System::EventHandler(this,
&Form1::button2_Click);
    //
    // label1
    //
    this->label1->AutoSize = true;
    this->label1->Font = (gcnew System::Drawing::Font(L"Microsoft Sans Serif",
9, System::Drawing::FontStyle::Bold, System::Drawing::GraphicsUnit::Point,
    static_cast<System::Byte>(0)));
    this->label1->Location = System::Drawing::Point(12, 47);
    this->label1->Name = L"label1";
    this->label1->Size = System::Drawing::Size(136, 15);
    this->label1->TabIndex = 2;
    this->label1->Text = L"Introduceti numarul:";
    //
    // textBox1
    //
    this->textBox1->Location = System::Drawing::Point(154, 46);
    this->textBox1->Name = L"textBox1";
    this->textBox1->Size = System::Drawing::Size(100, 20);
    this->textBox1->TabIndex = 3;
```

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```
//  
// label2  
//  
this->label2->AutoSize = true;  
this->label2->Font = (gcnew System::Drawing::Font(L"Microsoft Sans Serif",  
9, System::Drawing::FontStyle::Bold, System::Drawing::GraphicsUnit::Point,  
static_cast<System::Byte>(0)));  
this->label2->Location = System::Drawing::Point(13, 14);  
this->label2->Name = L"label2";  
this->label2->Size = System::Drawing::Size(261, 15);  
this->label2->TabIndex = 4;  
this->label2->Text = L"Introduceti capacitatea maxima a stivei:";  
//  
// textBox2  
//  
this->textBox2->Location = System::Drawing::Point(280, 13);  
this->textBox2->Name = L"textBox2";  
this->textBox2->Size = System::Drawing::Size(100, 20);  
this->textBox2->TabIndex = 5;  
//  
// Form1  
//  
this->AutoScaleDimensions = System::Drawing::SizeF(6, 13);  
this->AutoSizeMode = System::Windows::Forms::AutoSizeMode::Font;  
this->BackColor = System::Drawing::Color::White;  
this->ClientSize = System::Drawing::Size(503, 350);  
this->Controls->Add(this->textBox2);  
this->Controls->Add(this->label2);  
this->Controls->Add(this->textBox1);  
this->Controls->Add(this->label1);  
this->Controls->Add(this->button2);  
this->Controls->Add(this->button1);  
this->ForeColor = System::Drawing::Color::Black;  
this->Name = L"Form1";  
this->Text = L"Form1";  
this->Load += gcnew System::EventHandler(this, &Form1::Form1_Load);  
this->Paint += gcnew System::Windows::Forms::PaintEventHandler(this,  
&Form1::Form1_Paint);  
this->Resize += gcnew System::EventHandler(this, &Form1::Form1_Resize);  
this->ResumeLayout(false);  
this->PerformLayout();  
  
}  
#pragma endregion  
  
/*private: System::Void button1_Click(System::Object^ sender, System::EventArgs^ e) {  
  
    Desen = this->CreateGraphics();  
    Pensula=gcnew System::Drawing::SolidBrush(System::Drawing::Color::DarkOrchid );  
    System::Drawing::Font^ font_nina;  
    font_nina=gcnew System::Drawing::Font("Nina",10);  
    try  
    {  
        max=int::Parse(this->textBox2->Text);  
    }
```

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```
h=this->Height-50;

if(this->textBox1->Text!=" " && maxd!=max)
{
    Desen->DrawString(this->textBox1->Text,font_nina,Pensula,65,h-i*25);
    numere[m]=int::Parse(this->textBox1->Text);
    m++;
    i++;
    maxd++;
}

else MessageBox::Show("Stiva plina");
}
catch(...)
{
    MessageBox::Show("Introduce-ti valori numerice!");
}

j=i-1;
l=m-1;

}

private: System::Void button2_Click(System::Object^  sender, System::EventArgs^  e) {
    h=this->Height-50;

    if(maxd!=0)
    {
        Pensula1=gcnew System::Drawing::SolidBrush(System::Drawing::Color::White );
        Desen->FillRectangle(Pensula1, 65,h-j*25,65,15);
        numere[1]=0;
        l--;
        m--;
        j--;
        i--;
        maxd--;
    }
}
```

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```
        }

    else MessageBox::Show("Stiva goala");

}

private: System::Void Form1_Resize(System::Object^  sender, System::EventArgs^  e) {
    Desen->Clear(System::Drawing::Color(this->BackColor));

    Peninsula=gcnew
System::Drawing::SolidBrush(System::Drawing::Color::DarkOrchid );
    System::Drawing::Font^ font_nina;
    font_nina=gcnew System::Drawing::Font("Nina",10);

    Creion_rosu=gcnew System::Drawing::Pen(System::Drawing::Color::Red,10);

    h2=this->Height-80;

    for(k=0; k<m; k++)
    {
        Desen-
>DrawString(System::Convert::ToString(numere[k]),font_nina,Peninsula,65,h2-k*25);
    }

}

private: System::Void Form1_Paint(System::Object^  sender,
System::Windows::Forms::PaintEventArgs^  e) {
    Desen = this->CreateGraphics();

    Creion_rosu=gcnew System::Drawing::Pen(System::Drawing::Color::Red,10);
    h2=this->Height-50;
    Desen->DrawLine(Creion_rosu,50,60,50, h2);
    Desen->DrawLine(Creion_rosu,200,60,200,h2 );
    Desen->DrawLine(Creion_rosu,45,h2,205,h2 );
}

private: System::Void Form1_Load(System::Object^  sender, System::EventArgs^  e) {
}

};

}*/
```