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1. Stabilire director curent

Calea pana la executabil (variabile globale):

```
string strExeFilePath =
```

```
System.Reflection.Assembly.GetExecutingAssembly().Location;
```

```
public static string strWorkPath;
```

În Form1 Load se stabilește calea de lucru:

```
strWorkPath = System.IO.Path.GetDirectoryName(strExeFilePath);
```

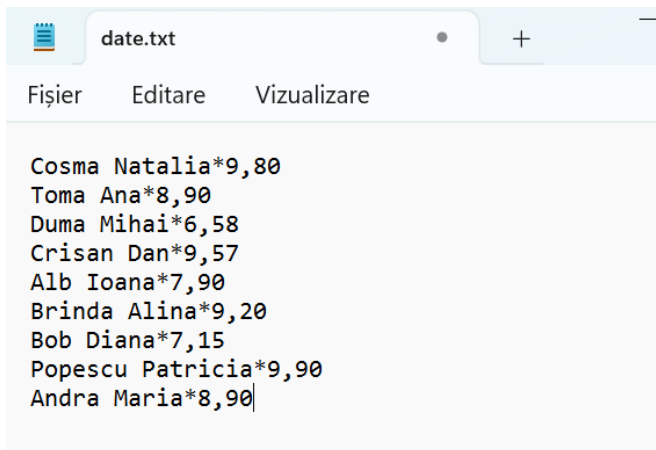
```
namespace CitiriFisier_BD_Grafice_Capturi_Salvari_GalCarmen
{
    3 references
    public partial class Form1 : Form
    {
        string strExeFilePath = System.Reflection.Assembly.GetExecutingAssembly().Location;
        public static string strWorkPath;

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

        1 reference
        private void Form1_Load(object sender, EventArgs e)
        {
            strWorkPath = System.IO.Path.GetDirectoryName(strExeFilePath);
        }
    }
}
```

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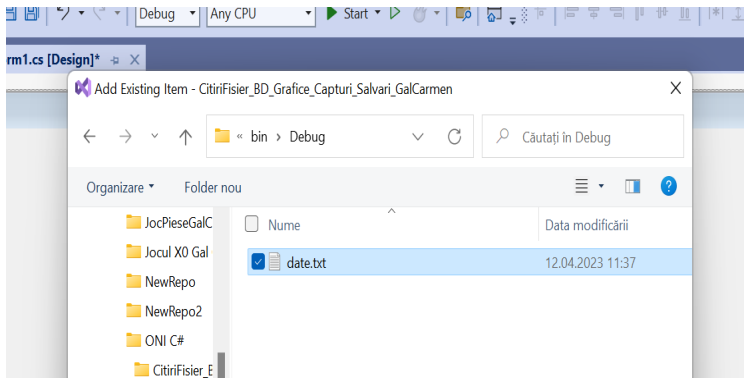
2. Fișierul date.txt salvat în bin\debug



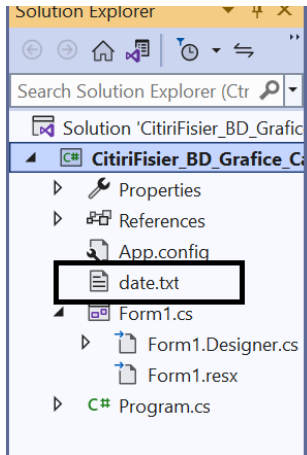
A screenshot of a text editor window titled 'date.txt'. The window has a menu bar with 'Fișier', 'Editare', and 'Vizualizare'. The text content is as follows:

```
Cosma Natalia*9,80  
Toma Ana*8,90  
Duma Mihai*6,58  
Crisan Dan*9,57  
Alb Ioana*7,90  
Brinda Alina*9,20  
Bob Diana*7,15  
Popescu Patricia*9,90  
Andra Maria*8,90|
```

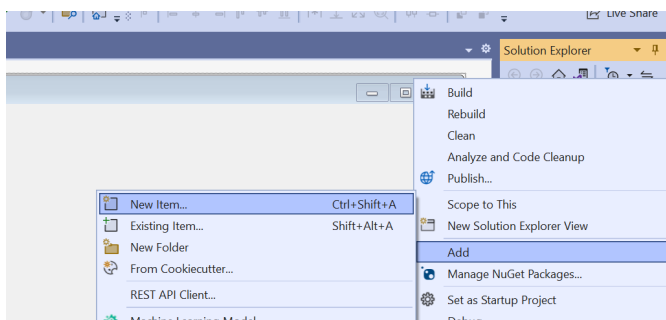
Adăugarea la proiect a fișierului text: Click dr-Add Existing Item: (orice tip de fișier: text, imagini, sunete, etc..)



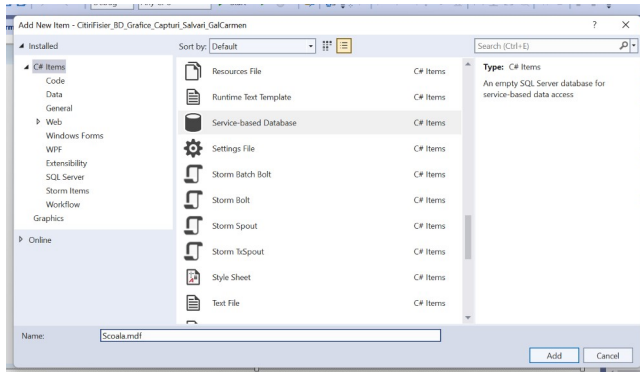
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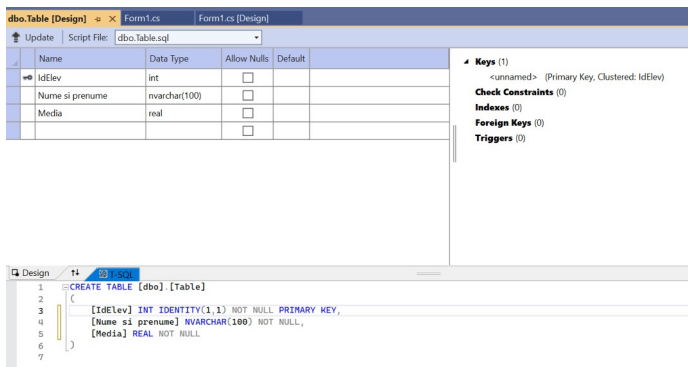
3. Crearea bazei de date



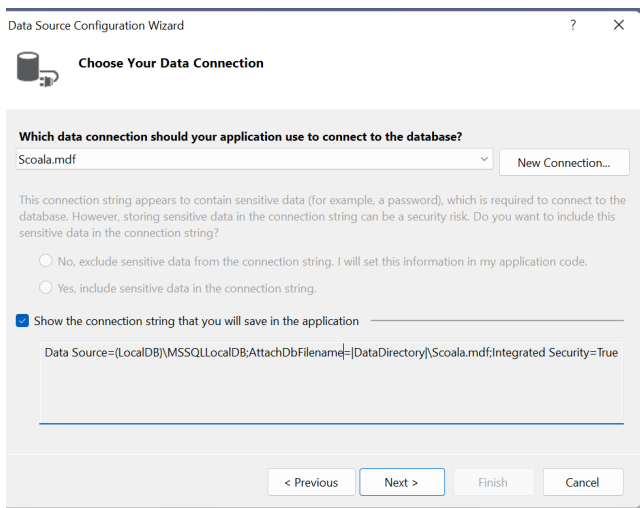
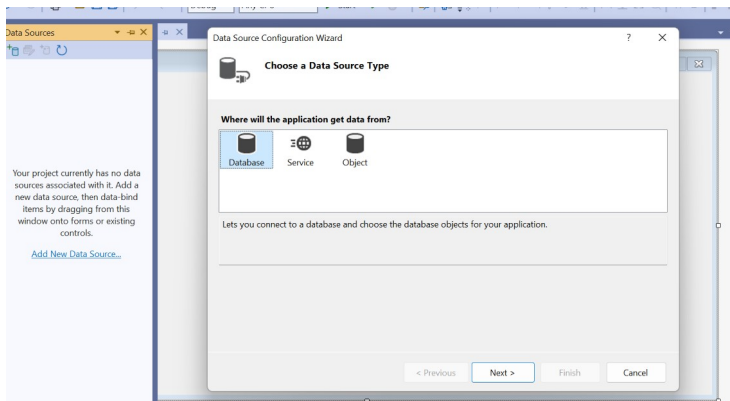
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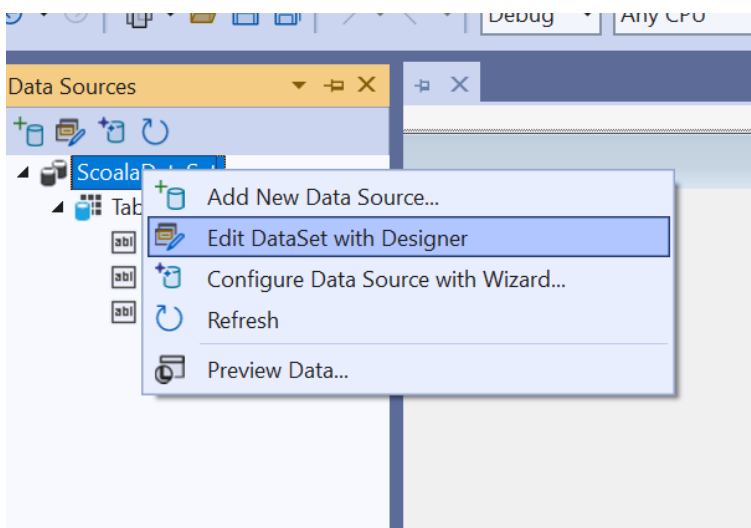
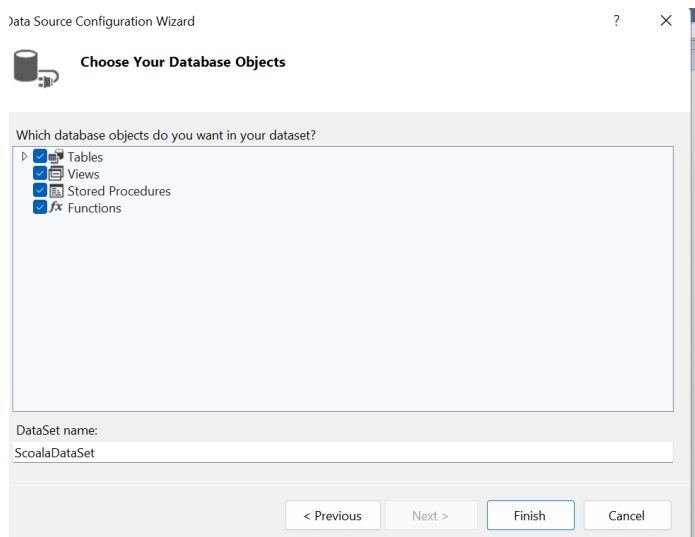
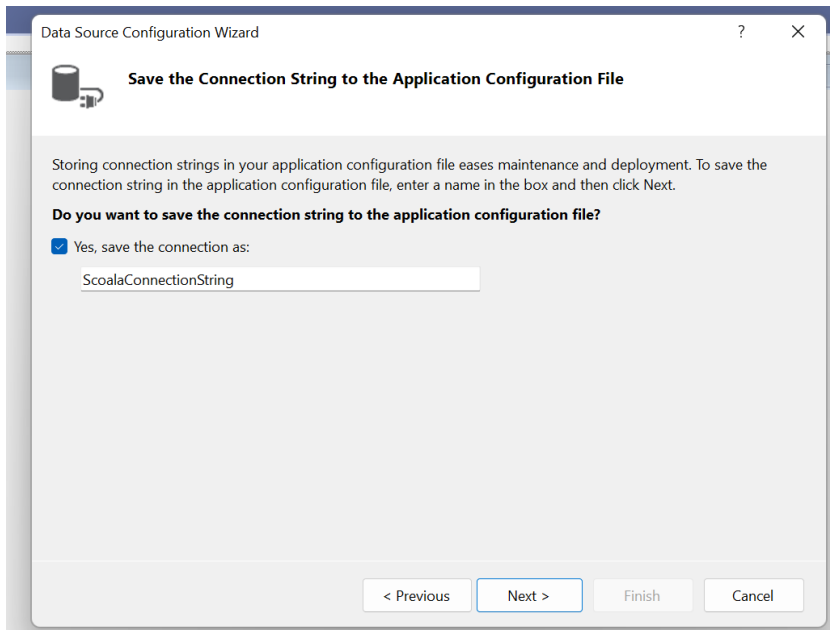


Definirea structurii tabelului:

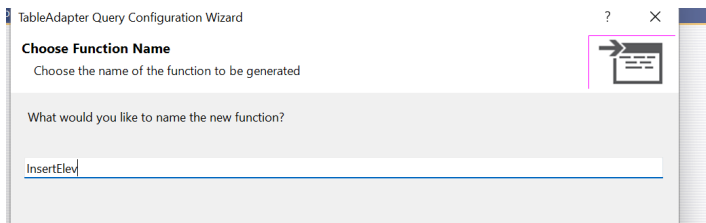
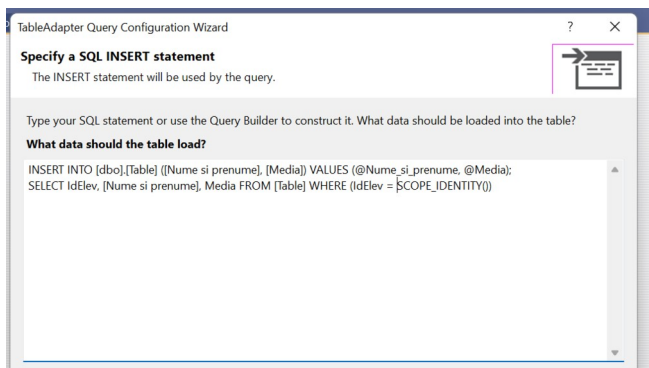
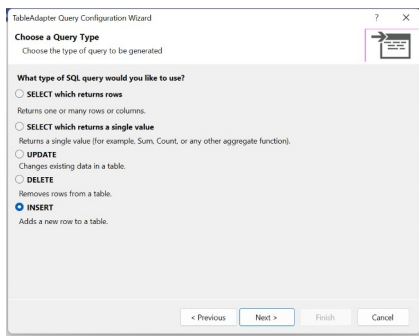
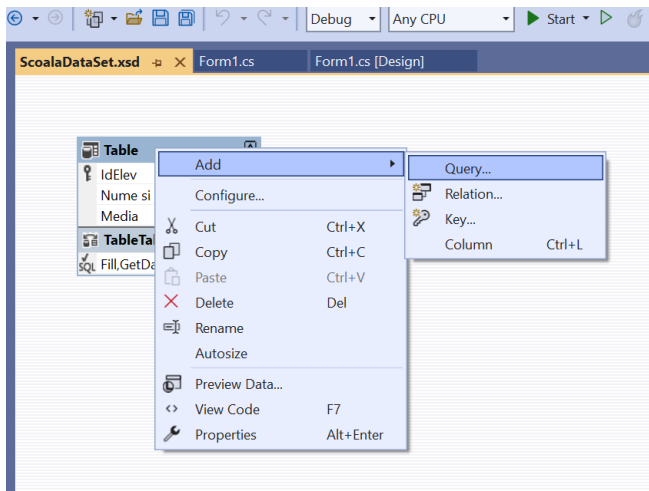


4. Creare DataSet:

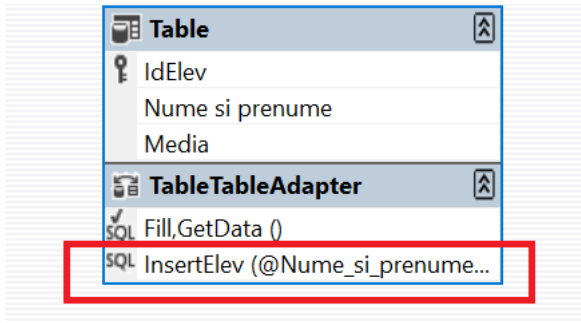




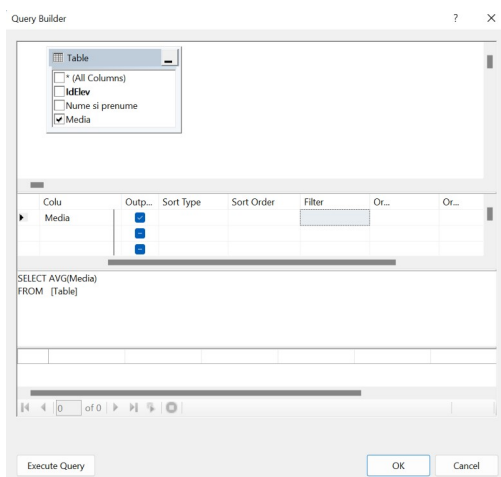
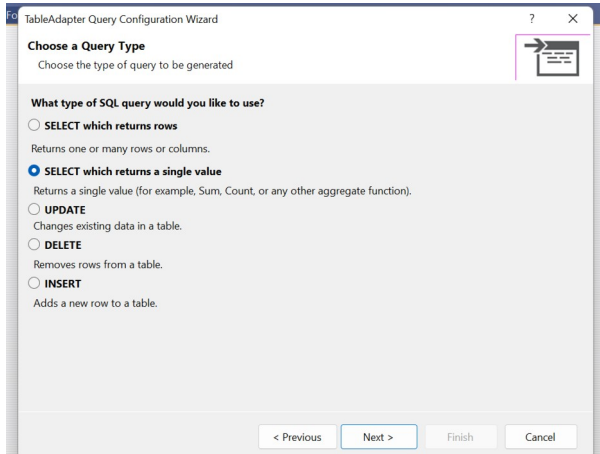
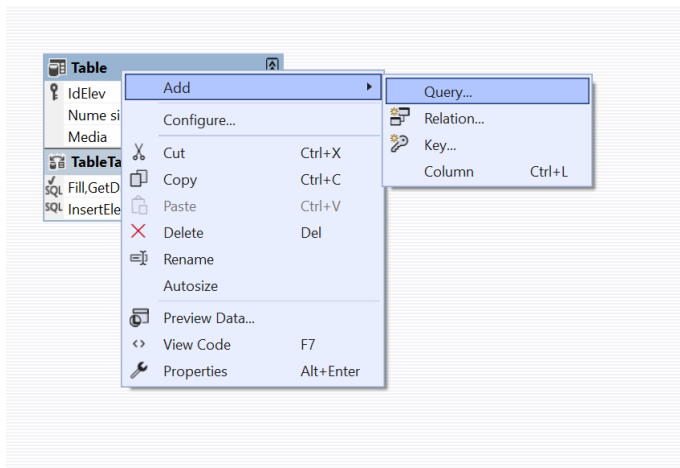
4.1. Adăugarea interogării de inserare în tabel:



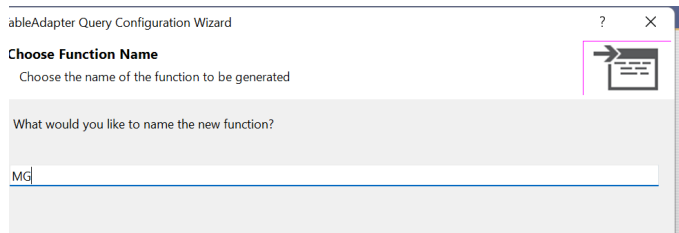
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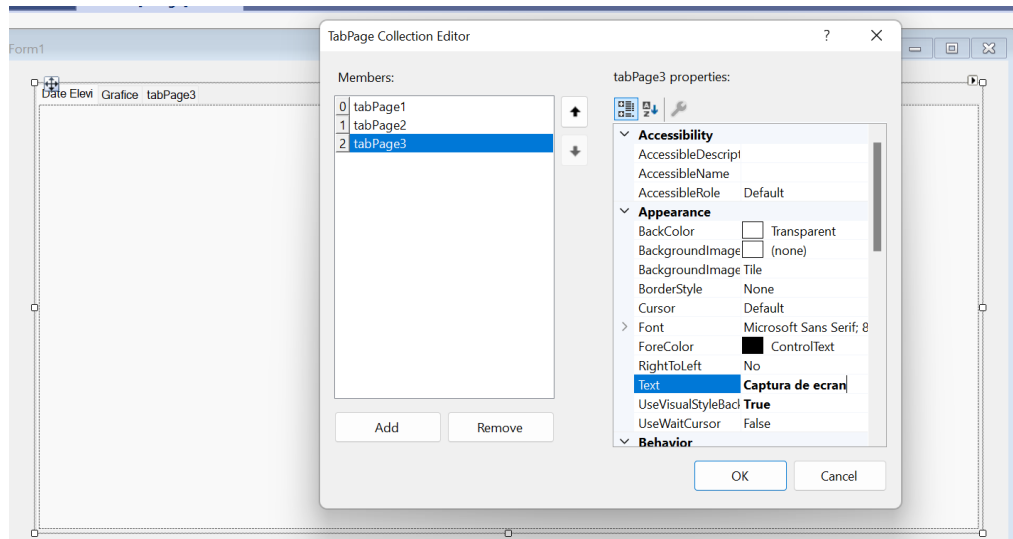
4.2. Determinarea mediei generale pentru toți elevii



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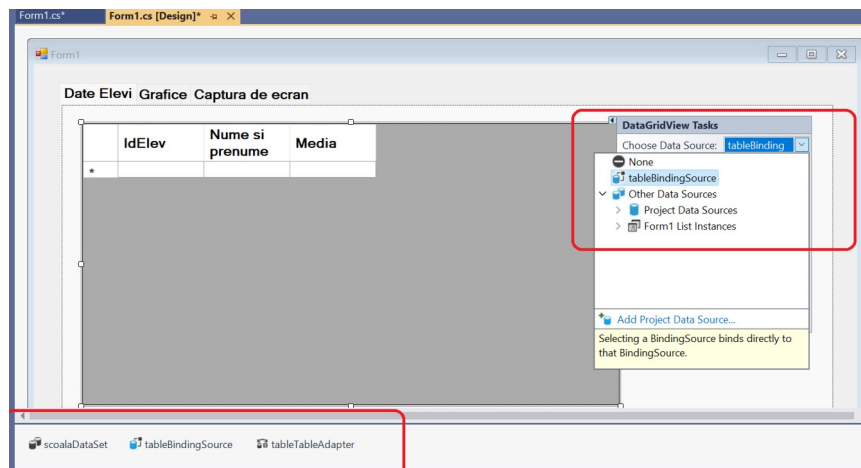


5. Dispunerea pe suprafata formularului a unui TabPage Control cu 3 pagini: DateElevi, Grafice, Captura de ecran:

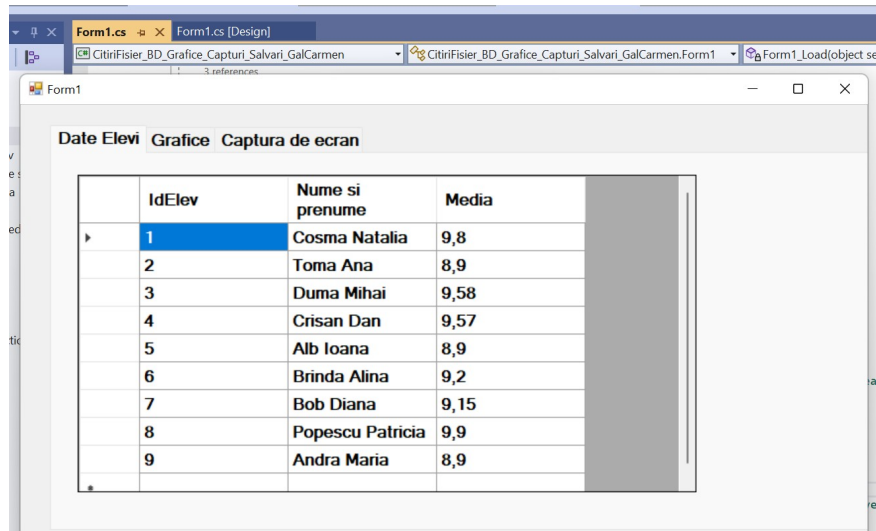


De la Butonul Add se adaugă pagini, iar de la proprietatea Text se modifică numele paginilor

6. Adăugare DataGridView pe suprafața formularului și legarea sa la tabel:



7. Citirea din fișier și inserarea datelor în dataGridView



The screenshot shows a Windows Forms application window titled 'Form1'. It has three tabs: 'Date Elevi', 'Grafice', and 'Captura de ecran'. The 'Date Elevi' tab is active, displaying a DataGridView table with the following data:

	IdElev	Nume si prenume	Media
▶	1	Cosma Natalia	9,8
	2	Toma Ana	8,9
	3	Duma Mihai	9,58
	4	Crisan Dan	9,57
	5	Alb Ioana	8,9
	6	Brinda Alina	9,2
	7	Bob Diana	9,15
	8	Popescu Patricia	9,9
	9	Andra Maria	8,9

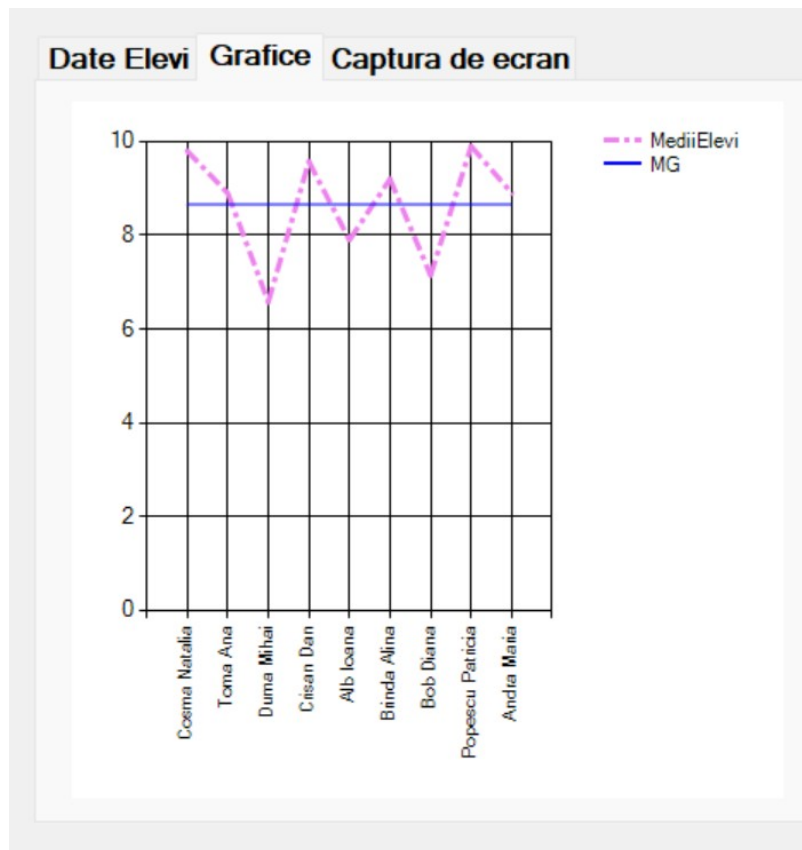
```
1 reference
private void citireFisierIncarcareTabel()
{
    string[] s;
    StreamReader sr=new StreamReader("date.txt");//deschiderea fisierului pt citire
    while(!sr.EndOfStream)
    {
        s = sr.ReadLine().Split('*');//citirea linie cu linie si impartirea sirului cu *
        this.tableTableAdapter.InsertElev(s[0], (float)(Convert.ToDouble(s[1])));//inserarea datelor in tabel
    }
    sr.Close();//inchidere fisier
    this.tableTableAdapter.Fill(scoalaDataSet.Table);//incarcarea datelor in tabel
}

1 reference
private void Form1_Load(object sender, EventArgs e)
{
    // TODO: This line of code loads data into the 'scoalaDataSet.Table' table. You can move, or remove it, as needed.
    this.tableTableAdapter.Fill(this.scoalaDataSet.Table);
    strWorkPath = System.IO.Path.GetDirectoryName(strExeFilePath);
    citireFisierIncarcareTabel();//se apeleaza functia de citire si populare a tabelului
}
```

8. Crearea Graficelor

Se dispune pe suprafata formularului 2 Controale de tipul Chart

Graficul 1:



Pentru a realiza graficul vom declara biblioteca:

`using System.Windows.Forms.DataVisualization.Charting;`

Din Form1 Load vom apela functia pentru crearea graficului 1: Grafic1()

```
private void Grafic1()
{
    double m = (float)tableTableAdapter.MG(); //se retine media generala a clasei
    this.chart1.Titles.Clear(); //stergere titlului daca exista
    this.chart1.Series.Clear(); //curatarea seriei daca exista
    this.chart1.Series.Add("MediiElevi");
    this.chart1.Series.Add("MG");
    this.chart1.Series["MediiElevi"].ChartType = SeriesChartType.Line;
    //se alege un grafic de tip linie pentru mediile elevilor
    this.chart1.Series["MG"].ChartType = SeriesChartType.Line;
    //pentru media generala alegem un grafic de tip bar
    this.chart1.Series["MediiElevi"].Color = Color.Violet; //culoarea liniei
    this.chart1.Series["MG"].Color = Color.Blue;
    this.chart1.Series["MediiElevi"].BorderWidth = 3; //grosimea liniei
    this.chart1.Series["MediiElevi"].BorderDashStyle = ChartDashStyle.DashDot;
    //linie punct
    foreach (DataRow row in scoalaDataSet.Table.Rows)
    {
        this.chart1.Series["MediiElevi"].Points.AddXY(row[1].ToString(),
            Convert.ToDouble(row[2]));
        this.chart1.Series["MG"].Points.AddXY(row[1].ToString(), m);
    }
}
```

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row[1] retine numele si prenumele elevului

row[2] retine media fiecarui elev

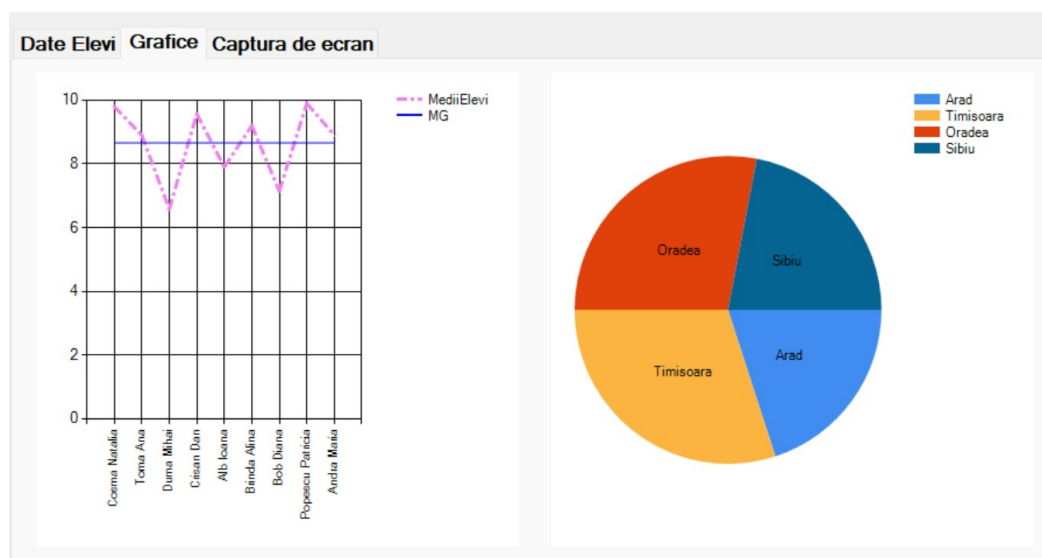
m-media generala pt toti elevii

Graficul 2:

Vom realiza un grafic de tip Pie pentru urmatoarele date:

Oras: Arad, Timisoara, Oradea, Sibiu

Procent:20%,30%,28%,22%



```
1 reference
private void Grafic2()
{
    string[] s = new string[4] { "Arad", "Timisoara", "Oradea", "Sibiu" };
    Double[] v = new Double[4] { 0.2, 0.3, 0.28, 0.22 };
    this.chart2.Titles.Clear();//stergerea titlului daca exista
    this.chart2.Series.Clear();//curatarea seriei daca exista
    this.chart2.Series.Add("Oras");
    this.chart2.Series["Oras"].ChartType = SeriesChartType.Pie;
    for(int i=0;i<4;i++)
        this.chart2.Series["Oras"].Points.AddXY(s[i], v[i]);
}

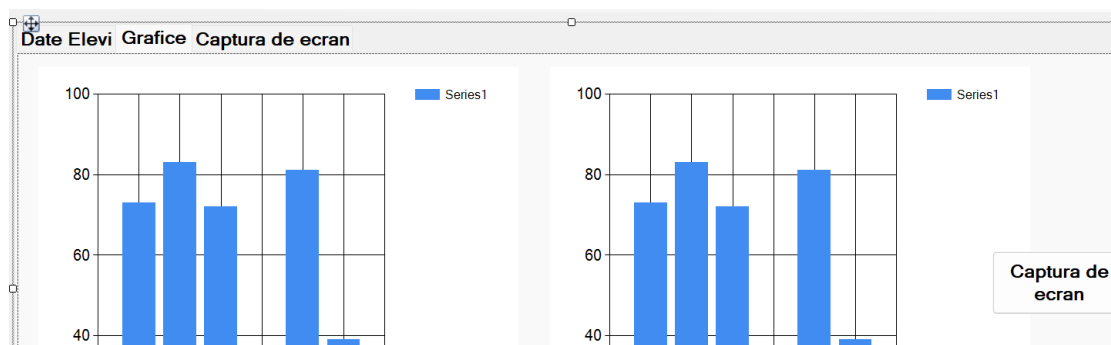
1 reference
private void Form1_Load(object sender, EventArgs e)
{
    // TODO: This line of code loads data into the 'scoalaDataSet.Table' table. You can move, or remove it
    this.tableTableAdapter.Fill(this.scoalaDataSet.Table);
    strWorkPath = System.IO.Path.GetDirectoryName(strExeFilePath);
    citireFisierIncarcareTabel();//se apeleaza functia de citire si populare a tabelului
    Grafic1();
    Grafic2();
}
```

9. Capturi de ecran

Vom crea o captura de ecran pentru pagina cu elevii si una pt grafice pe care le vom salva in fisierele 1.jpg si 2.jpg, iar cele doua capturi le vom pune in 2 PictureBox-uri in pagina Capturi.

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De asemenea, în paginile Medii Elevi și Grafice vom pune două butoane CapturaEcran pe care dacă efectuăm Click vor fi realizate capturile și care vor fi și fizic salvate în bin\debug. În momentul în care se execută Click pe butoane acestea devin inaccesibile (modificăm proprietatea Enabled pe False)



Capturile de ecran vor fi încărcate în cele 2 PictureBox-uri (la care modificăm proprietatea SizeMode pe Stretch)

Meniu

Date Elevi Grafice Captura de ecran

Form1

Meniu

Date Elevi Grafice Captura de ecran

IdElev	Nume si prenume	Media
1	Cosma Natalia	9,8
2	Toma Ana	8,9
3	Duma Mihai	6,58
4	Crisan Dan	9,57
5	Alb Ioana	7,9
6	Brinda Alina	9,2
7	Bob Diana	7,15
8	Popescu Patricia	9,9
9	Andra Maria	8,9

Captura de ecran

Form1

Meniu

Date Elevi Grafice Captura de ecran

MediiElevi

MG

Captura de ecran

Arad

Timisoara

Oradea

Sibiu

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1 reference

```
private void button2_Click(object sender, EventArgs e)
{
    Application.DoEvents();
    nrcaptura++;
    Captura(nrcaptura);
    pictureBox2.Image=Image.FromFile(nrcaptura.ToString()+".jpg");
    button2.Enabled=false;//inaccesibil
}
```

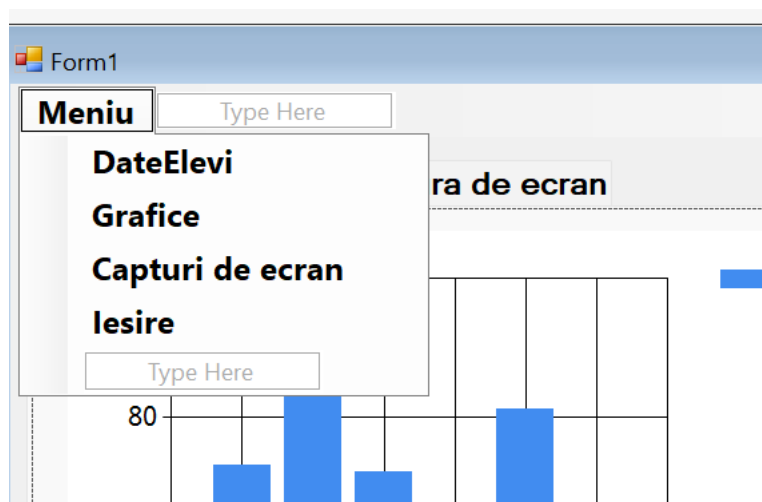
1 reference

```
private void button1_Click(object sender, EventArgs e)
{
    Application.DoEvents();
    nrcaptura++;
    Captura(nrcaptura);
    pictureBox1.Image = Image.FromFile(nrcaptura.ToString() + ".jpg");
    button1.Enabled = false;//inaccesibil
}
```

Funcția Captura:

```
private void Captura(int nr)
{
    using (Bitmap bmp = new Bitmap(Screen.PrimaryScreen.Bounds.Width,
        Screen.PrimaryScreen.Bounds.Height))
    {
        using (Graphics gc = Graphics.FromImage(bmp))
        {
            gc.CopyFromScreen(Screen.PrimaryScreen.Bounds.X,
                Screen.PrimaryScreen.Bounds.Y, 0, 0, bmp.Size, CopyPixelOperation.SourceCopy);
            bmp.Save(Convert.ToString(nr)+".jpg");
        }
    }
}
```

10 Crearea unui meniu prin intermediul căruia deschidem paginile (control de tipul MenuStrip):



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```
private void dateEleviToolStripMenuItem_Click(object sender, EventArgs e)
{
    tabControl1.SelectTab(0);
}
```

1 reference

```
private void graficeToolStripMenuItem_Click(object sender, EventArgs e)
{
    tabControl1.SelectTab(1);
}
```

1 reference

```
private void capturiDeEcranToolStripMenuItem_Click(object sender, EventArgs e)
{
    tabControl1.SelectTab(2);
}
```

1 reference

```
private void iesireToolStripMenuItem_Click(object sender, EventArgs e)
{
    Application.Exit();
}
```