

# **School Management System Project's Topic**

The school management system is a web-based system which will use as a platform for interaction between student, teachers. While the main objective of this project is to computerize the paperwork in the system and automate the work. The computerization is done so that the storage of all the details regarding students and teachers will be stored in the system which makes system centralized and the chance of duplication of any data is minimized. While by doing automation to the system will reduce the time for storing any data in the system.

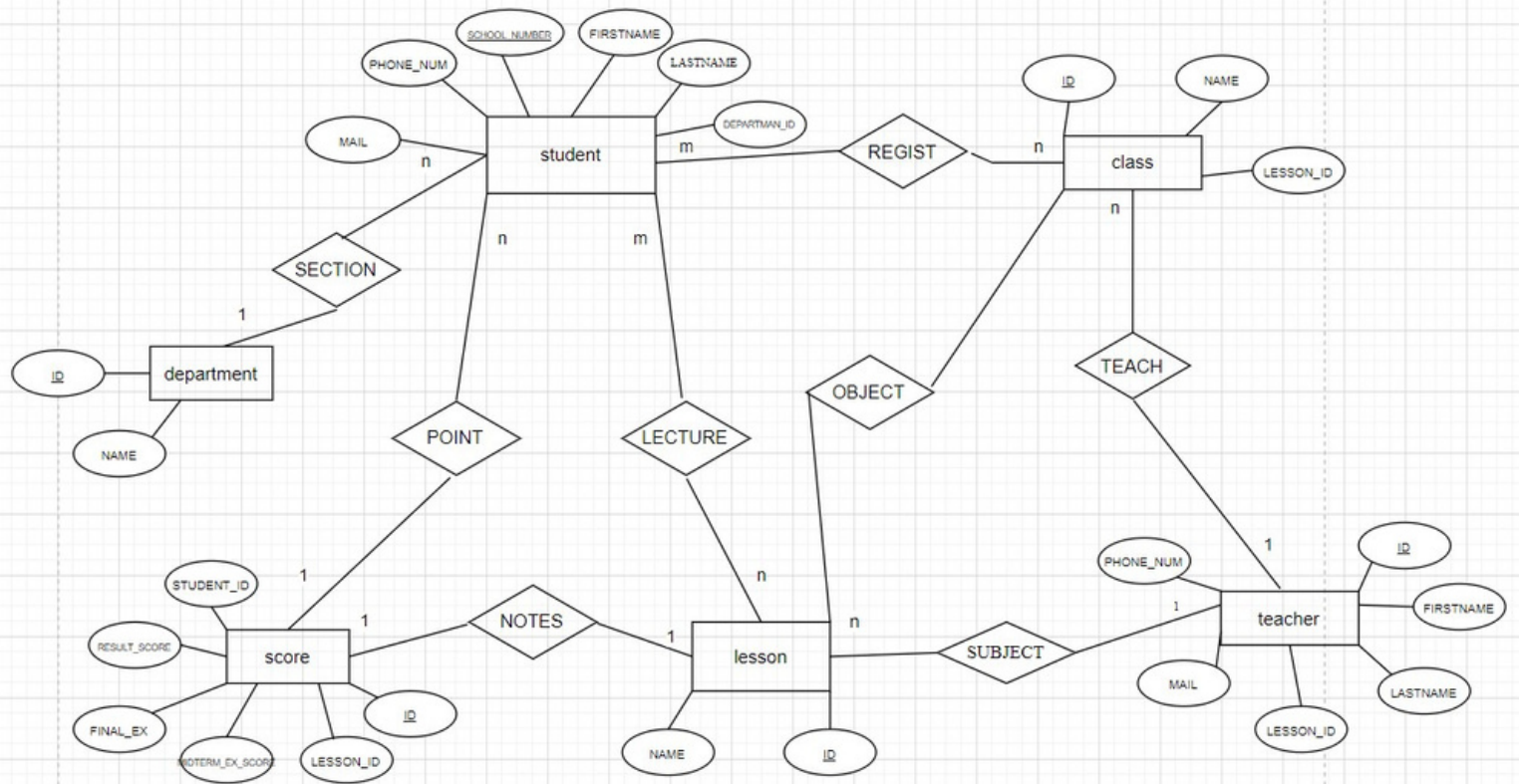
## **Problem with existing system**

In the present School Management System, it is uneasy to store the information related to students, faculty on the paper. As there is too many information when someone tries to access any of stored information it becomes a difficult and time-consuming task. While these days parents and faculty have more work than just take care of students it is difficult for both parents and faculty to monitor them. Whereas the storing and retrieving an information is a difficult task, it also requires much amount of unnecessary worker to do the task

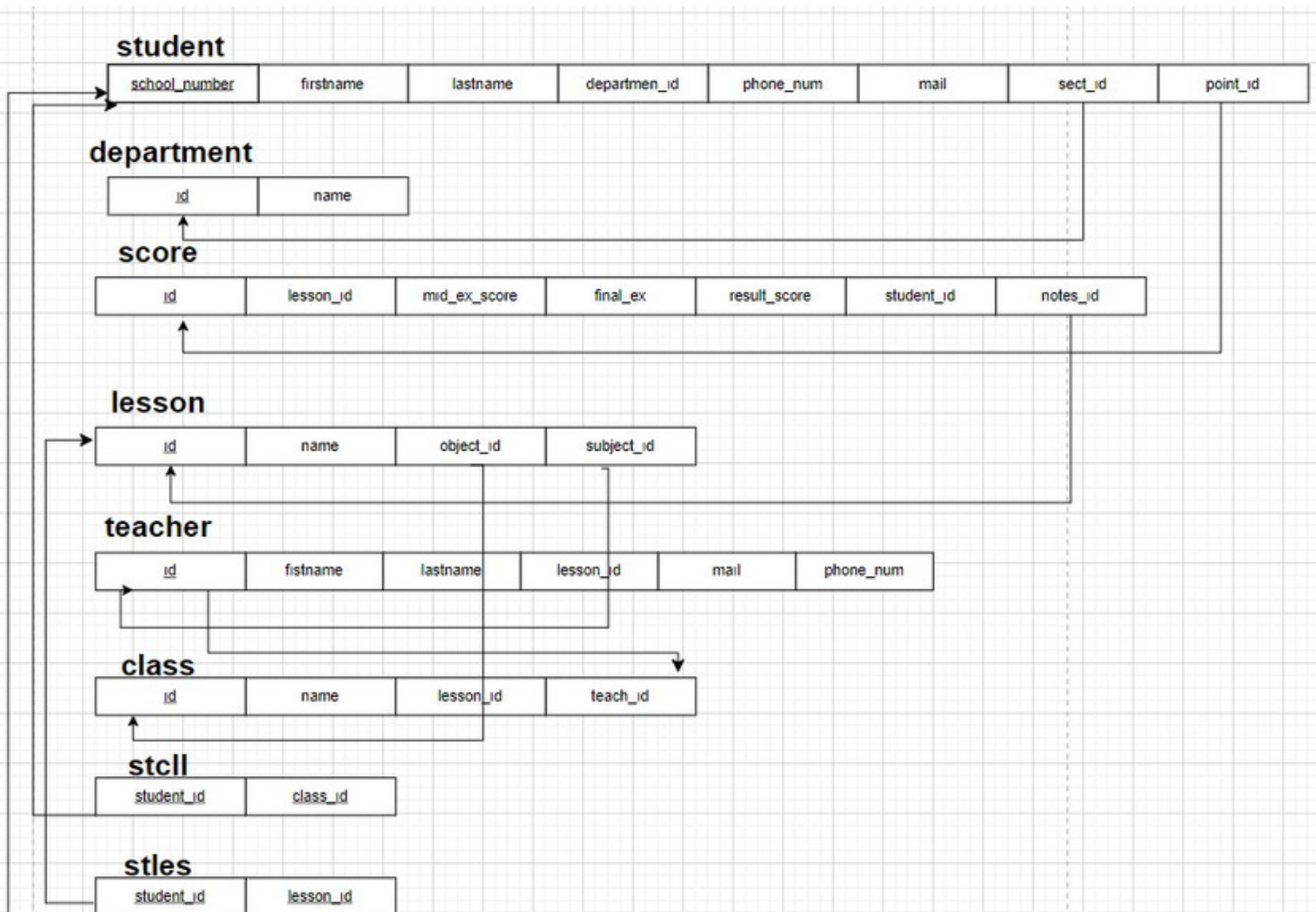
## **Recommended system**

The school management system will manage grades and specific jobs in any school, thus reducing the time requirement and complexity of the system, focusing primarily on student-related information. Once a student is accepted into the school system, they will begin to manage the details about the students. We will be able to see which department the student is registered to, the grades he has taken, and the professors of the department in the system.

# Er schemas



# Mapping of ER diagrams



# Table descriptions (Schemas)

Column Name	Data Type	Allow Nulls
SchoolNumber	int	<input type="checkbox"/>
FirstName	varchar(50)	<input checked="" type="checkbox"/>
LastName	varchar(50)	<input checked="" type="checkbox"/>
DepartmentId	int	<input checked="" type="checkbox"/>
PhoneNumber	varchar(11)	<input checked="" type="checkbox"/>
Mail	nvarchar(70)	<input checked="" type="checkbox"/>

Column Name	Data Type	Allow Nulls
Id	int	<input type="checkbox"/>
Name	varchar(50)	<input checked="" type="checkbox"/>
LessonId	int	<input checked="" type="checkbox"/>

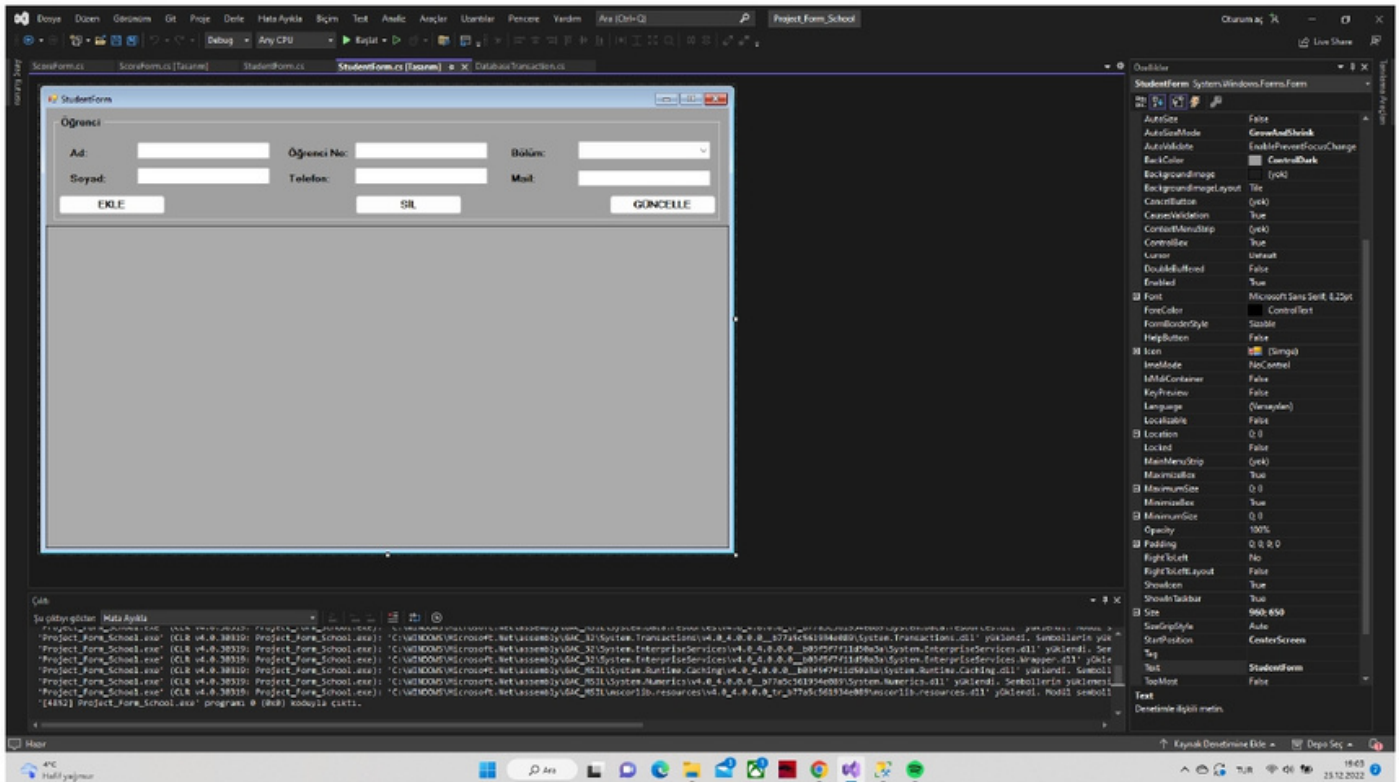
Column Name	Data Type	Allow Nulls
Id	int	<input type="checkbox"/>
Name	varchar(70)	<input checked="" type="checkbox"/>

Column Name	Data Type	Allow Nulls
Id	int	<input type="checkbox"/>
FirstName	varchar(30)	<input checked="" type="checkbox"/>
LastName	varchar(30)	<input checked="" type="checkbox"/>
LessonId	int	<input checked="" type="checkbox"/>
Mail	nvarchar(70)	<input checked="" type="checkbox"/>
PhoneNumber	varchar(11)	<input checked="" type="checkbox"/>

Column Name	Data Type	Allow Nulls
Id	int	<input type="checkbox"/>
LessonId	int	<input checked="" type="checkbox"/>
MidtermExamScore	float	<input checked="" type="checkbox"/>
FinalExam	float	<input checked="" type="checkbox"/>
ResultScore	varchar(5)	<input checked="" type="checkbox"/>
StudentId	int	<input checked="" type="checkbox"/>

Column Name	Data Type	Allow Nulls
Id	int	<input type="checkbox"/>
Name	varchar(70)	<input checked="" type="checkbox"/>

# Description of functionalities for every interface design



```
Form1.cs
C:\> Users\USER\Desktop\Project_School\Project_Form_School\Project_Form_School> Form1.cs
1 using System;
2 using System.Collections.Generic;
3 using System.ComponentModel;
4 using System.Data;
5 using System.Drawing;
6 using System.Linq;
7 using System.Text;
8 using System.Threading.Tasks;
9 using System.Windows.Forms;
10
11 namespace Project_Form_School
12 {
13     public partial class Form1 : Form
14     {
15         public Form1()
16         {
17             InitializeComponent();
18         }
19
20         private void fdgfdgdfoolStripMenuItem_Click(object sender, EventArgs e)
21         {
22         }
23
24         private void button1_Click(object sender, EventArgs e)
25         {
26             StudentForm form = new StudentForm();
27             form.Show();
28         }
29
30         private void button3_Click(object sender, EventArgs e)
31         {
32             TeacherForm form = new TeacherForm();
33             form.Show();
34         }
35
36         private void button2_Click(object sender, EventArgs e)
37         {
38             ScoreForm form = new ScoreForm();
39             form.Show();
40         }
41     }
42 }
43
44
```

Buttons with simple IU codes have been added with C#.It was added on the design, which is a ready-made template with added button codes.



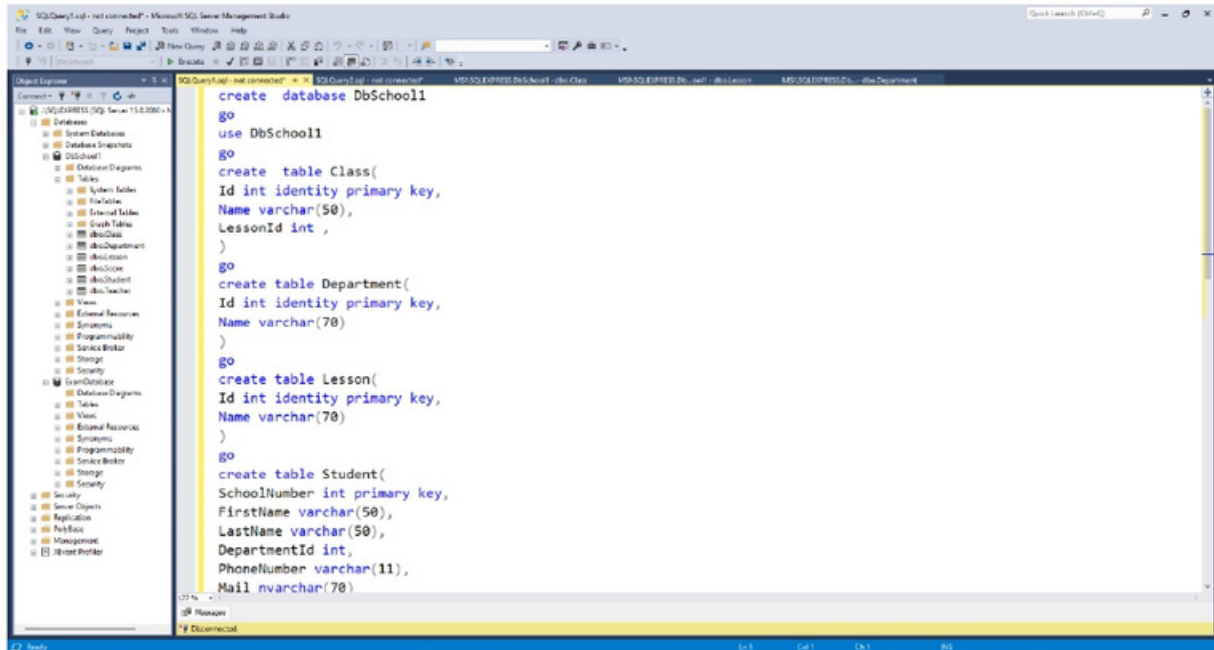
```
File Edit Selection View Go Run Terminal Help
Restricted Mode is intended for safe code browsing. Trust this window to enable all features. Manage Learn More
C:\Users\USER\Desktop\Project_School>Project_Form_School>Project_Form_School>Form1.Designer.cs
1
2 namespace Project_Form_School
3 {
4     partial class Form1
5     {
6         /// <summary>
7         /// Required designer variable.
8         /// </summary>
9         private System.ComponentModel.IContainer components = null;
10
11         /// <summary>
12         /// Clean up any resources being used.
13         /// </summary>
14         /// <param name="disposing">true if managed resources should be disposed; otherwise, false.</param>
15         protected override void Dispose(bool disposing)
16         {
17             if (disposing && (components != null))
18             {
19                 components.Dispose();
20             }
21             base.Dispose(disposing);
22         }
23
24         #region Windows Form Designer generated code
25
26         /// <summary>
27         /// Required method for Designer support - do not modify
28         /// the contents of this method with the code editor.
29         /// </summary>
30         private void InitializeComponent()
31         {
32             this.button1 = new System.Windows.Forms.Button();
33             this.label1 = new System.Windows.Forms.Label();
34             this.button2 = new System.Windows.Forms.Button();
35             this.button3 = new System.Windows.Forms.Button();
36             this.panel1 = new System.Windows.Forms.Panel();
37             this.label2 = new System.Windows.Forms.Label();
38             this.panel1.SuspendLayout();
39             this.SuspendLayout();
40             //
41             // button1
42             //
43             this.button1.BackColor = System.Drawing.SystemColors.ActiveCaption;
44             this.button1.Dock = System.Windows.Forms.DockStyle.Left;
45             this.button1.Font = new System.Drawing.Font("Tahoma", 20.25F, ((System.Drawing.FontStyle)(System.Drawing.FontStyle.Bold | System.Drawing.FontStyle.Italic)), System.Drawing.GraphicsUnit.Point, ((byte)162));
46             this.button1.ImageAlign = System.Drawing.ContentAlignment.MiddleLeft;
47             this.button1.Location = new System.Drawing.Point(0, 0);
48         }
49     }
50 }
```

The next photo shows the codes of the screen where student notes are added. It is written in C# with the IU creation technique.

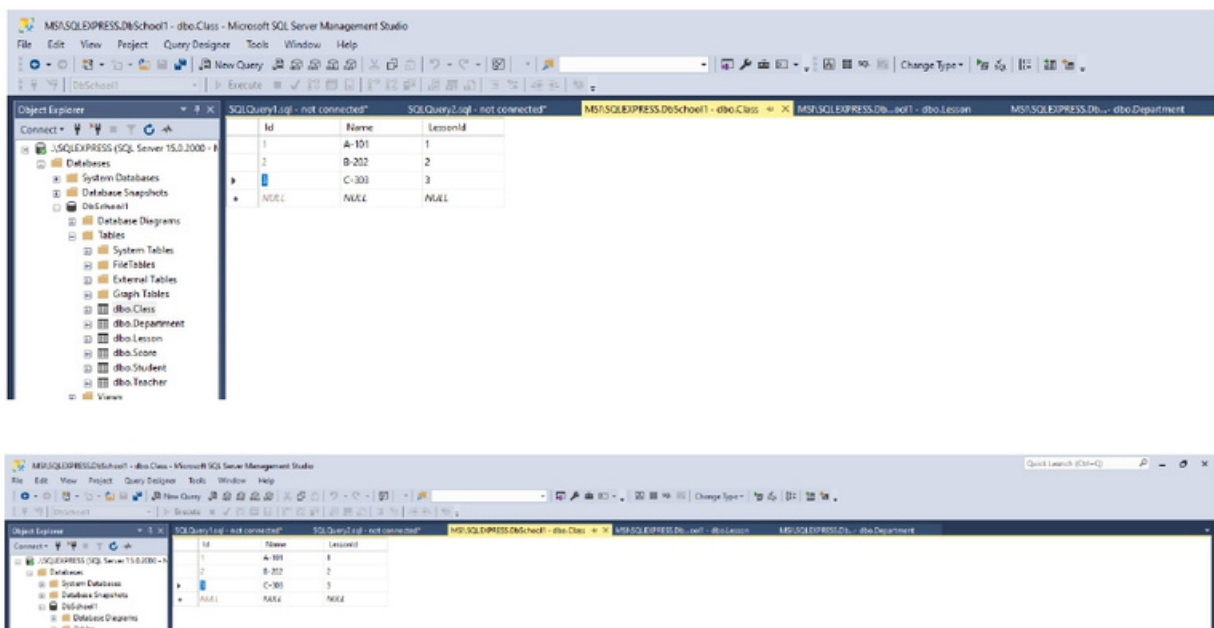
```
File Edit Selection View Go Run Terminal Help
Restricted Mode is intended for safe code browsing. Trust this window to enable all features. Manage Learn More
C:\Users\USER\Desktop\Project_School>Project_Form_School>Project_Form_School>ScoreForm.Designer.cs
18 private void InitializeComponent()
19 {
20     this.dataGridView1 = new System.Windows.Forms.DataGridView();
21     this.groupBox1 = new System.Windows.Forms.GroupBox();
22     this.label2 = new System.Windows.Forms.Label();
23     this.textBox1 = new System.Windows.Forms.TextBox();
24     this.label16 = new System.Windows.Forms.Label();
25     this.label1 = new System.Windows.Forms.Label();
26     this.textBox11 = new System.Windows.Forms.TextBox();
27     this.textBox12 = new System.Windows.Forms.TextBox();
28     this.button1 = new System.Windows.Forms.Button();
29     this.button2 = new System.Windows.Forms.Button();
30     this.button3 = new System.Windows.Forms.Button();
31     this.comboBox1 = new System.Windows.Forms.ComboBox();
32     this.label3 = new System.Windows.Forms.Label();
33     this.button4 = new System.Windows.Forms.Button();
34     this.dataGridView2 = new System.Windows.Forms.DataGridView();
35     ((System.ComponentModel.ISupportInitialize)(this.dataGridView1)).BeginInit();
36     this.groupBox1.SuspendLayout();
37     ((System.ComponentModel.ISupportInitialize)(this.dataGridView2)).BeginInit();
38     this.SuspendLayout();
39     //
40     // dataGridView1
41     //
42     this.dataGridView1.ColumnHeadersDefaultCellStyle = System.Windows.Forms.DataGridViewColumnHeadersDefaultCellStyle.AutoSize;
43     this.dataGridView1.Dock = System.Windows.Forms.DockStyle.Bottom;
44     this.dataGridView1.Location = new System.Drawing.Point(0, 185);
45     this.dataGridView1.Name = "dataGridView1";
46     this.dataGridView1.Size = new System.Drawing.Size(944, 426);
47     this.dataGridView1.TabIndex = 37;
48     this.dataGridView1.CellClick += new System.Windows.Forms.DataGridViewCellEventHandler(this.dataGridView1_CellClick);
49     //
50     // groupBox1
51     //
52     this.groupBox1.Controls.Add(this.button4);
53     this.groupBox1.Controls.Add(this.label2);
54     this.groupBox1.Controls.Add(this.textBox1);
55     this.groupBox1.Controls.Add(this.label16);
56     this.groupBox1.Controls.Add(this.label1);
57     this.groupBox1.Controls.Add(this.textBox11);
58     this.groupBox1.Controls.Add(this.textBox12);
59     this.groupBox1.Controls.Add(this.button1);
60     this.groupBox1.Controls.Add(this.button2);
61     this.groupBox1.Controls.Add(this.button3);
62     this.groupBox1.Controls.Add(this.comboBox1);
63     this.groupBox1.Controls.Add(this.label3);
64     this.groupBox1.Font = new System.Drawing.Font("Microsoft Sans Serif", 9.75F, System.Drawing.FontStyle.Bold, System.Drawing.GraphicsUnit.Point, ((byte)162));
65 }
```

The interface of the program was created with C#, then different codes were connected with a single name. After the created buttons, the feedback comes out with a smaller screen message. Text sections and buttons were created with the ready-made texts. Later, the simple design of the created interface (color, button thickness, text box, etc.) was corrected via Visual Studio.

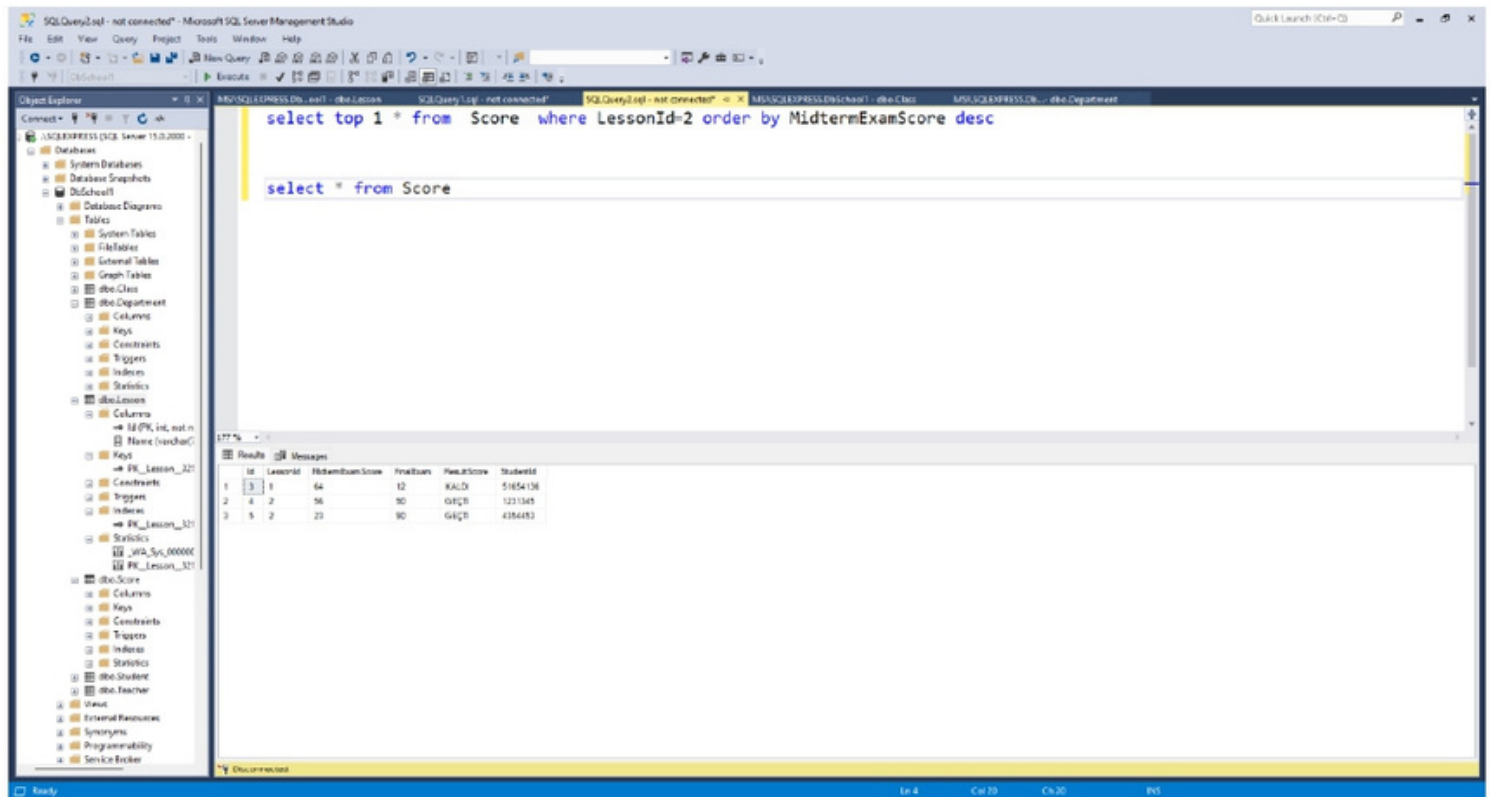
# TABLES



The tables were made with SQL. We created the tables according to our ER diagram that we drew at first. Added information and character sizes that will be in the tables. No Course and Section limits have been set.



# SQL QUERY



The screenshot shows the Microsoft SQL Server Enterprise Manager interface. The left pane displays the 'Object Explorer' with a tree view of the database structure, including 'Database', 'Tables', 'Views', 'Stored Procedures', etc. The right pane shows a query window with the following SQL query:

```
select top 1 * from Score where LessonId=2 order by MidtermExamScore desc
```

Below the query window, the 'Results' pane displays the following data:

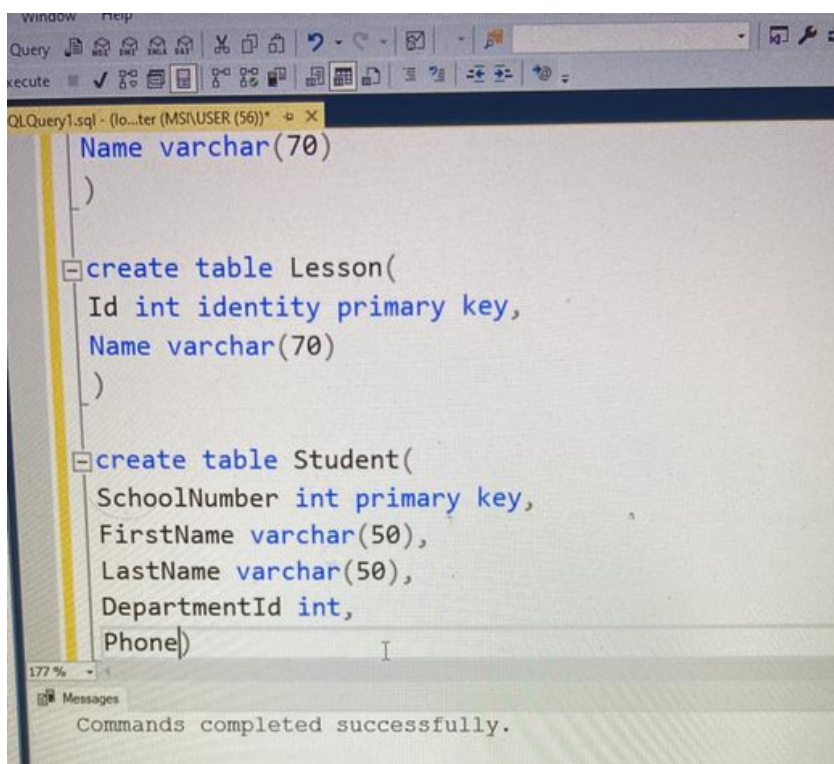
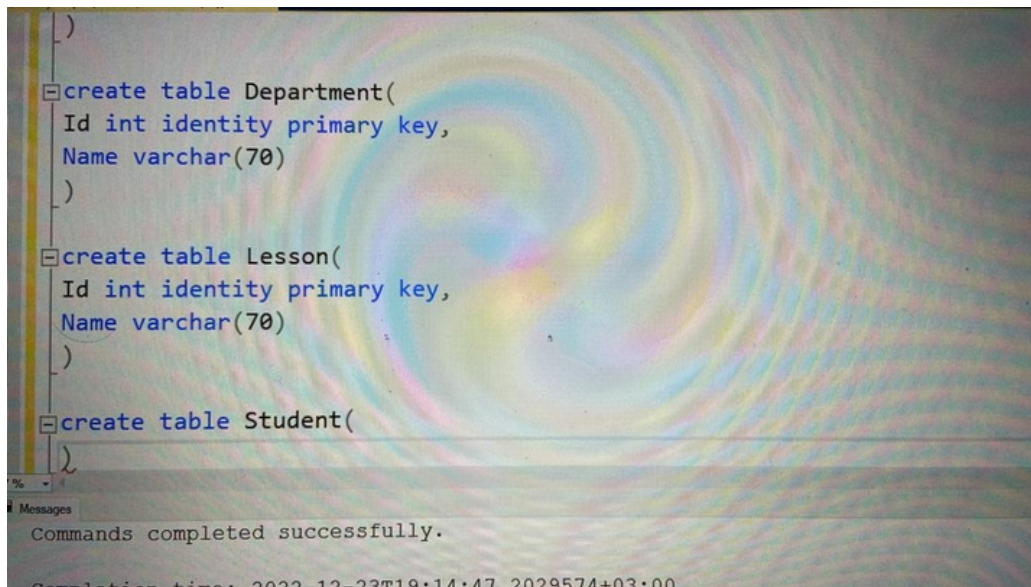
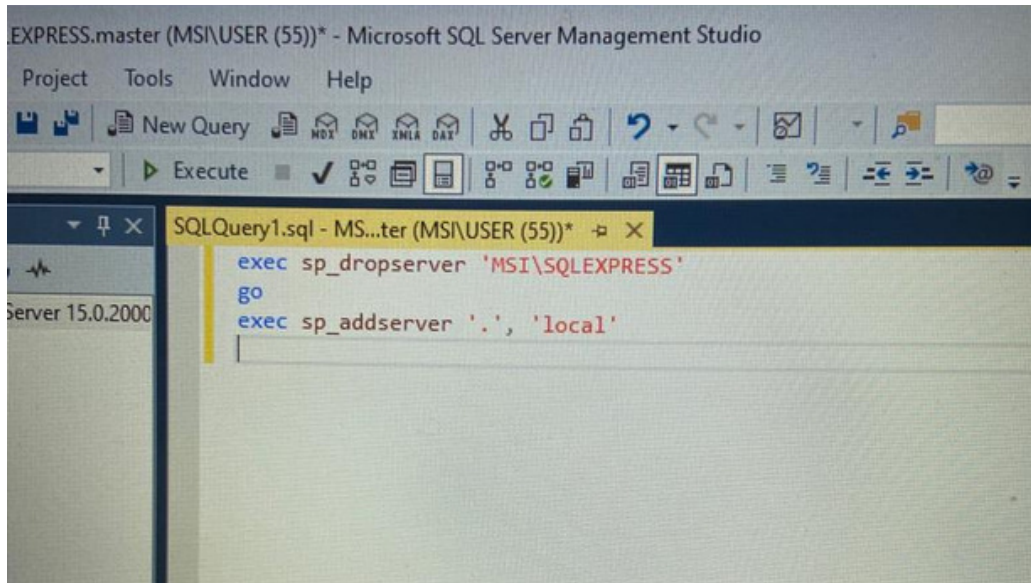
id	LessonId	MidtermExamScore	FinalExamScore	FinalScore	StudentId
1	2	64	12	KALDI	51654136
2	2	56	90	GEGE	1231345
3	2	23	90	GEGE	4384483

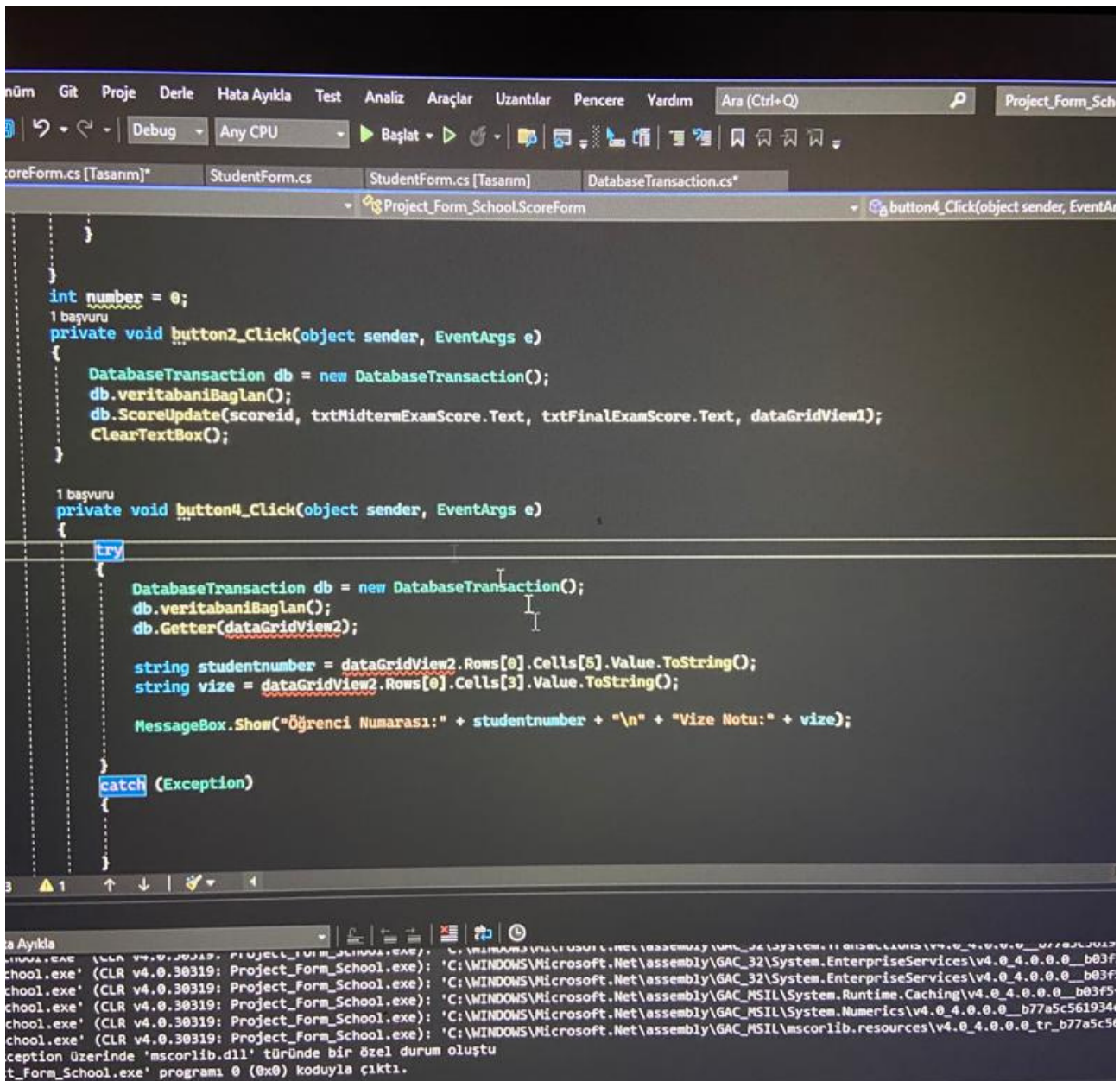
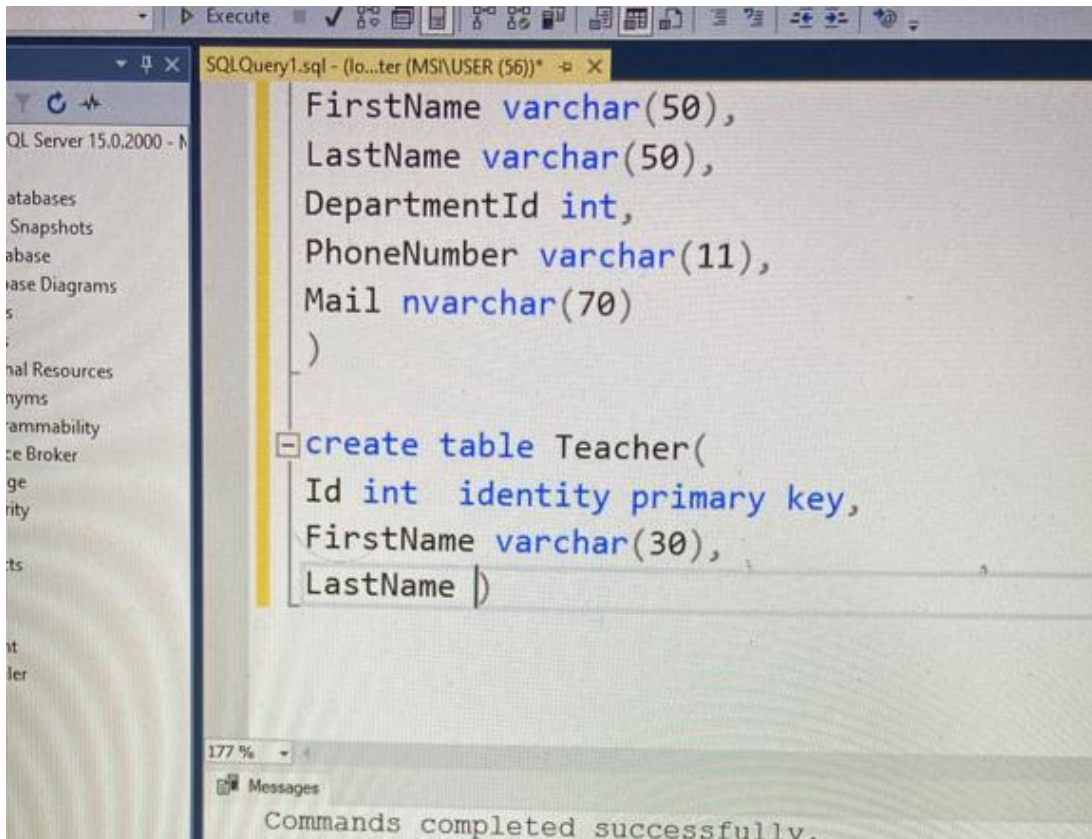
We have assigned numbers to the lessons in the lessons file we have created. We created the Show the highest grade query from lesson number 2 in SQL from the numbers we assigned, and we defined the query in C# and pulled it from the data we created in SQL.

```
1 baglanti
public void Getter(DataGridView dataGridView1)
{
    veritabaniBaglan();
    DataTable dt = new DataTable();
    // Kullanimin sql sorgusu --
    adaptor = new SqlDataAdapter("select top 1 * from Score where LessonId=2 order by MidtermExamScore desc ", baglanti);
    adaptor.Fill(dt);
    dataGridView1.DataSource = dt;
    baglanti.Close();
}
```



# Whole Project codes with class names







Form.cs StudentForm.cs [Tasanim] DatabaseTransaction.cs

Project Form School.ScoreForm button4 Click(object sender, EventArgs e)

ScoreForm

Öğrenci Ekle

Öğrenci No:  Ders:  Vize:

Final:

EKLE Fizik Vizesi Max Getir SİL GÜNCE

Id	LessonId	MidtermExamScore	FinalExam	ResultScore	StudentId
3	1	64	12	KALDI	51654136
4	2	56	90	GEÇTİ	1231345
5	2			GEÇTİ	4354453

Id	LessonId
4	2

School1 (MS\USER (58))\* - Microsoft SQL Server Management Studio

Tools Window Help

New Query Execute

SQLQuery2.sql - (lo...o11 (MS\USER (58))\* MS\SQLEXPRESS.Db...- dbo.Department SQLQuery1.sql - not connected\*

```
select top 1 * from Score where LessonId=2 order by
```