

Informatics College Pokhara



Application Development

CS6004NA

Coursework 1

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Application Development

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1. Introduction

This is our first coursework of Application Development. The coursework asks to develop a desktop application in Visual Studio using C# as programming language. The application needs to be a student and student information system and retrieving, to and from a .dat file as well as a .csv file respectively. It can also add data manually. The application can generate a daily report, weekly report and weekly chart according to the visit records. The application must allow the user to input the student personal detail including registration date so that a system can generate a weekly enrolment report of the student. The system provides details like Name, address, contact no, email, program enrol, registration date and daily wage amount of the employee. This application is made to systemize the records of students details, program enrol and registration date.

2 . Current Scenario

The current data storing methods used by schools in Nepal are most likely manual system: writing data in registers. Introducing digitalized system make things much easier for the students, organizations and its employees.

Recently, the Kantipur school in Kathmandu has invested in creating Record Desktop application to store information of the students and their records and an android application that provides organization with student information about and details in school as well as the organization itself. This way the school has had easy storing records and information and generating reports for analysing.

3. Description

This desktop application can be used in schools and educational organizations. Its objective is to generate reports on daily and weekly basis as well as weekly chart representing the weekly report. The application must allow the user to input the student personal detail including registration date so that a system can generate a weekly enrolment report of the student. The system provides details like Name, address, contact no, email, program enrol, registration date and daily wage amount of the employee. The reports are generated using the data provided/input by the user. The data include students personal information such as name, address, contact no, etc.

4. User Manual

1. Running the application opens log in menu

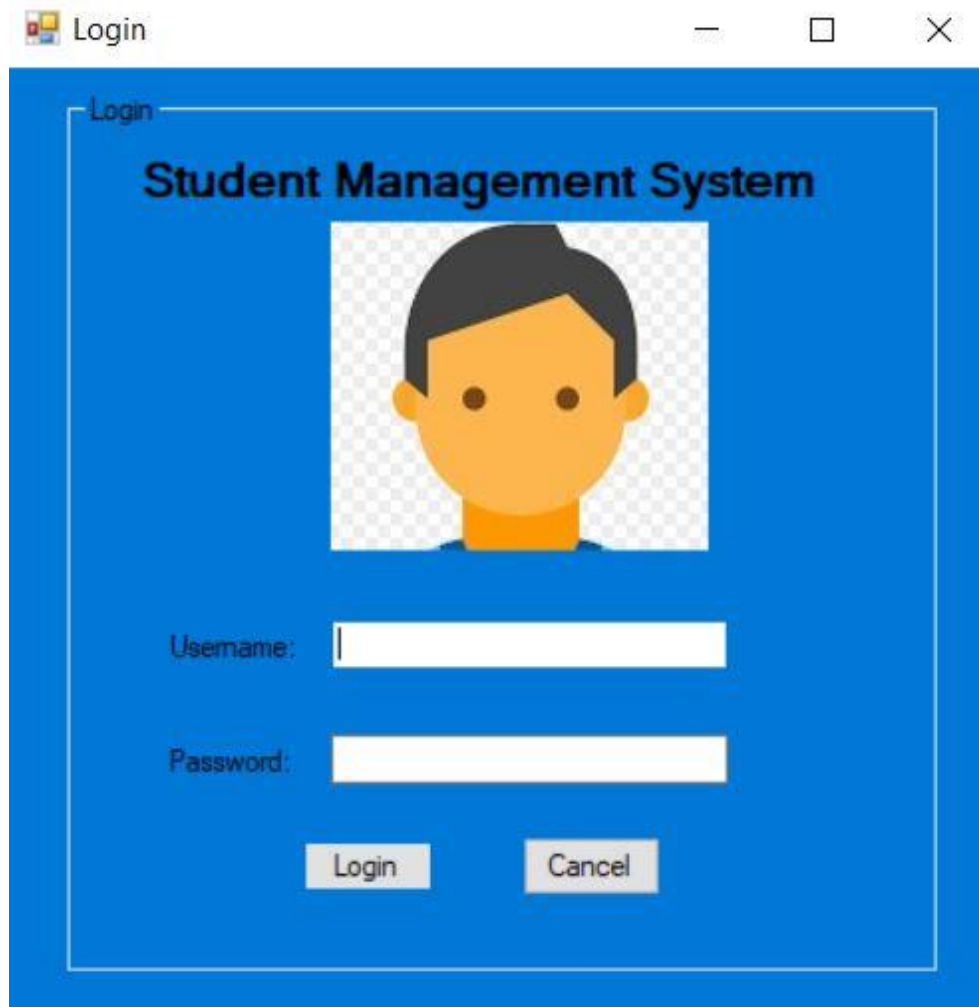


Figure 1 Login

2. Running Application show wrong login user id

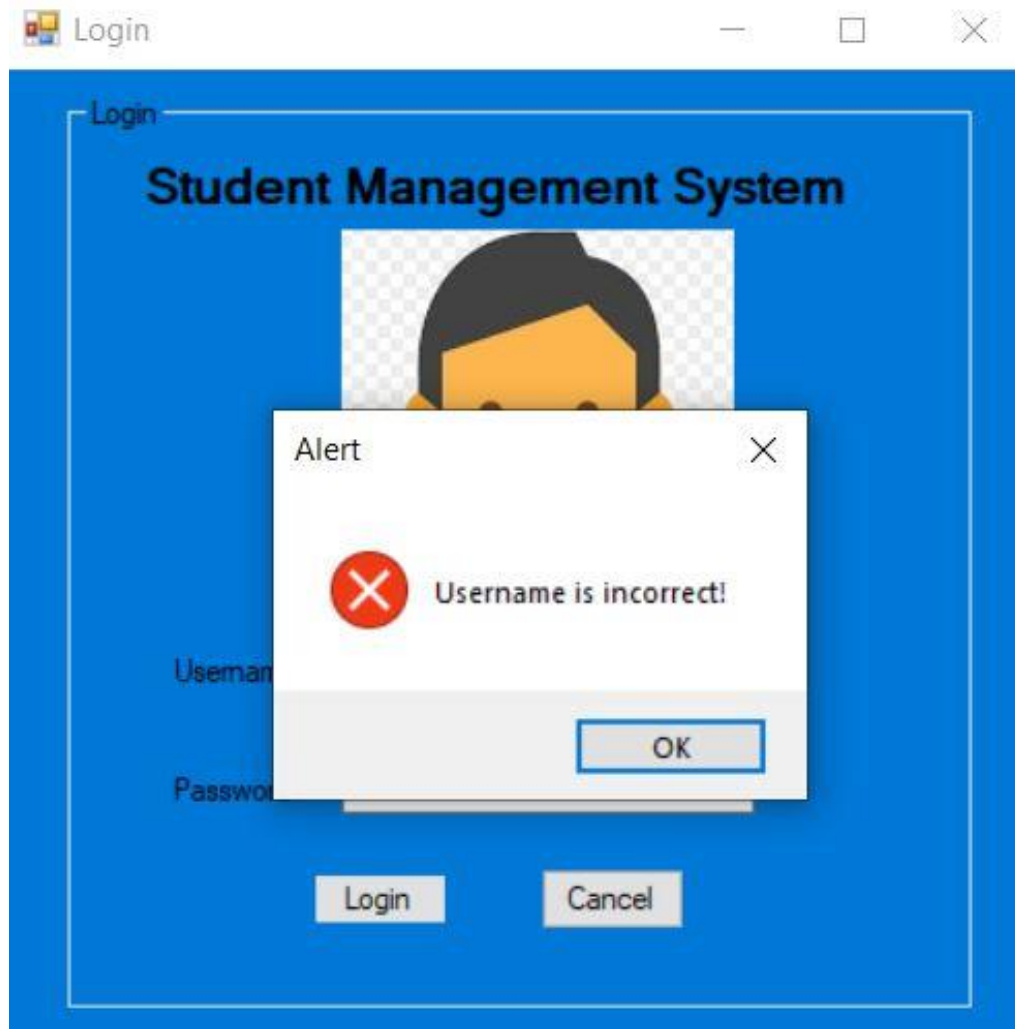


Figure 2 Username

3. Application shows successful login

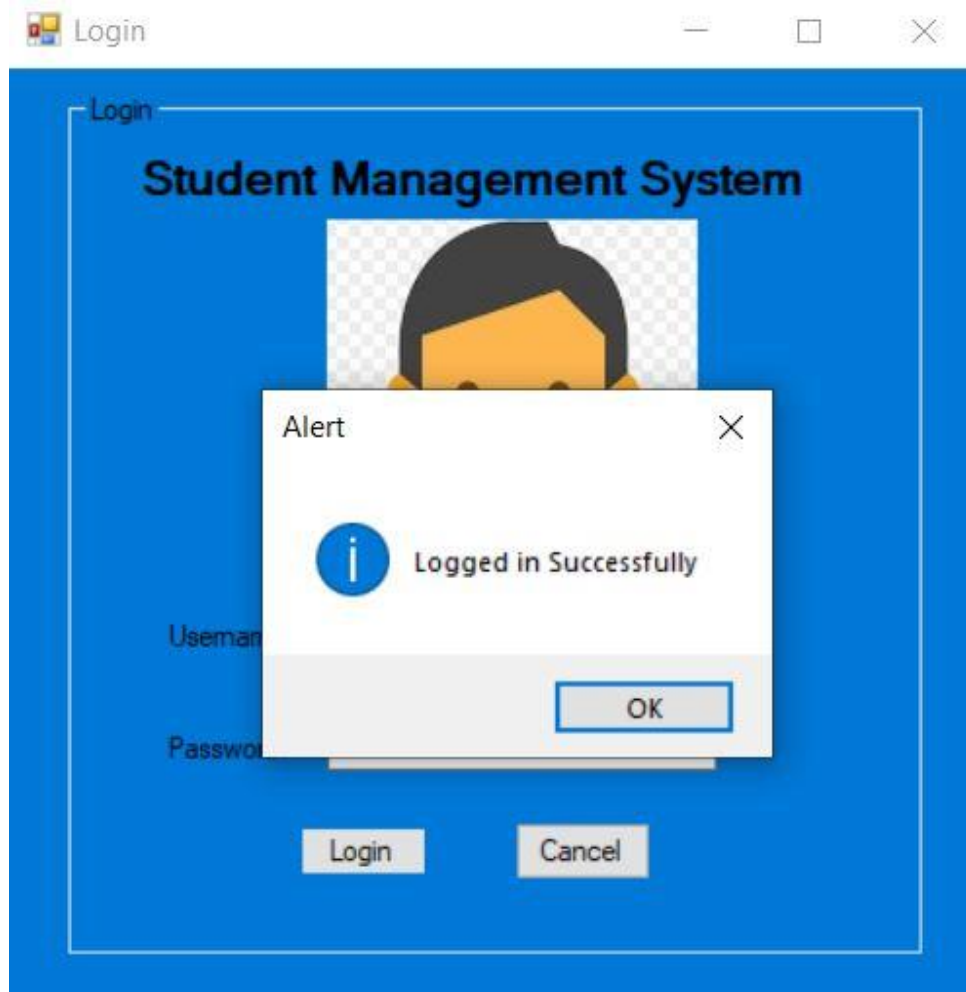


Figure 3 login succesful

3. Running the application opens the Home page of an application.

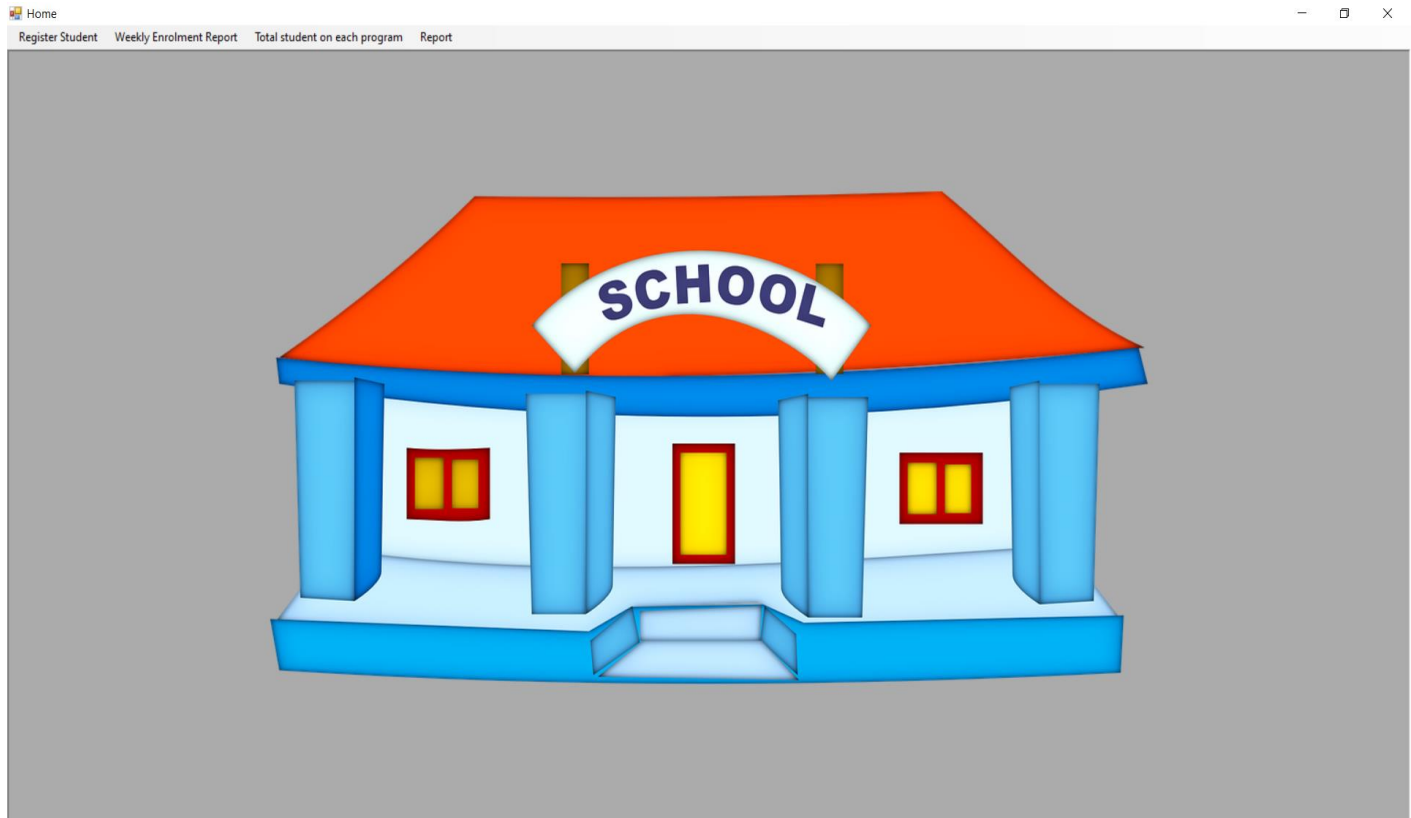


Figure 4 Home page

4. Click on register student to see students' data.

Register Student Weekly Enrolment Report Total student on each program Report

StudentDetail

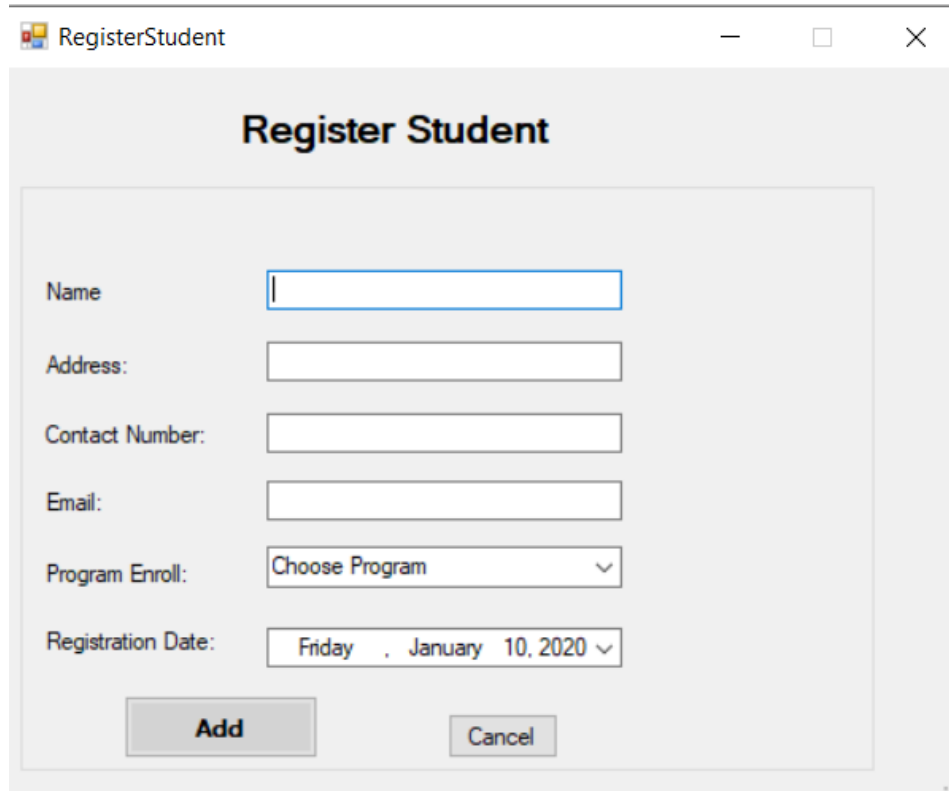
Student Details

StudentId	Name	Address	ContactNumber	Email	ProgramEnroll	RegistrationDate
1	Roshan Gurung	Matepani	9804190231	roshangr125@g...	Computing	12/7/2019
2	Anuraj Shrestha	Damauli	9807654567	anuraj@gmail.com	Computing	12/7/2019
3	Anish	Pokhara	9804190231	anishgrg@gmail...	Networks and IT ...	12/27/2019
4	Ajun	Kathmandu	90876765433	ajun@gmail.com	Multimedia Tech...	12/27/2019
5	Samir	Mahendrapool	9803123421	samir@gmail.com	Networks and IT ...	12/26/2019
6	Hari Lama	Pokhara	9898767876	hari@gmail.com	Networks and IT ...	12/28/2019
7	rossi	bagar	9806147544	rossi@gmail.com	Computing	1/5/2020
8	valentino	mahendrapool	9866623232	valentino@gmail...	Multimedia Tech...	1/10/2020

Add Import From CSV Export To CSV Save Retrive

Figure 5 Student details

5. Click Add to open Register Visitor Form.



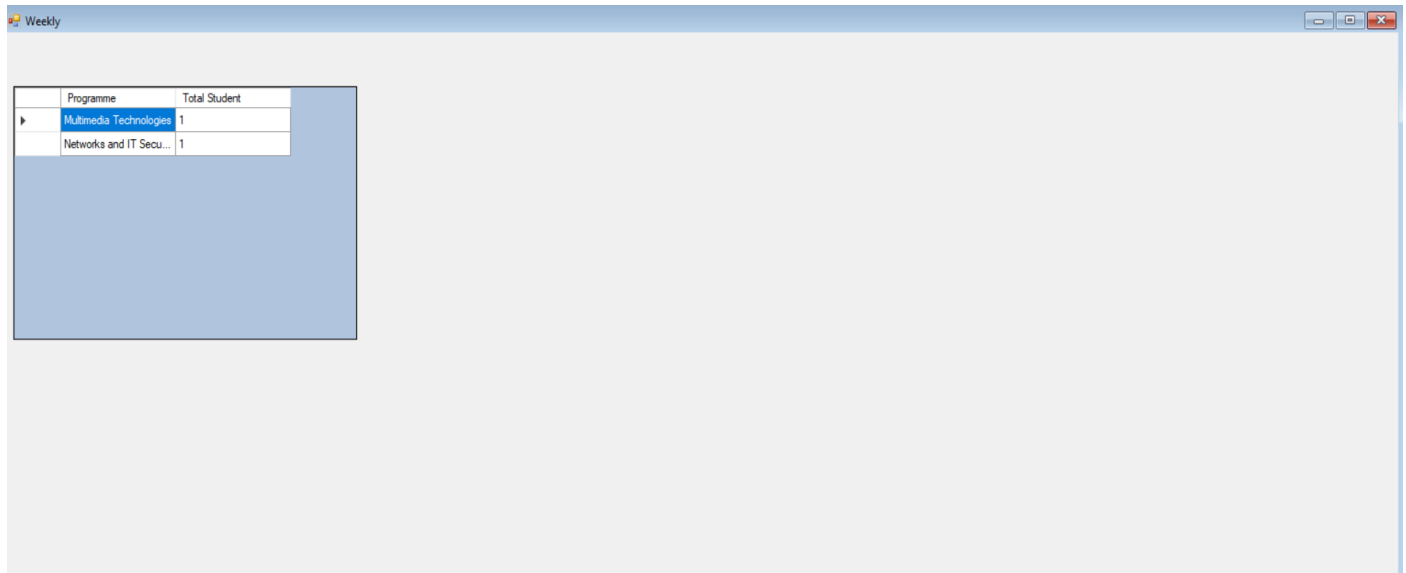
The screenshot shows a window titled "RegisterStudent" with standard Windows window controls (minimize, maximize, close). Inside the window, the title "Register Student" is centered at the top. Below the title is a form with the following fields:

- Name: A text input field with a cursor at the start.
- Address: A text input field.
- Contact Number: A text input field.
- Email: A text input field.
- Program Enroll: A dropdown menu showing "Choose Program" with a downward arrow.
- Registration Date: A date picker showing "Friday , January 10, 2020" with a downward arrow.

At the bottom of the form are two buttons: "Add" and "Cancel".

Figure 6 Register student

6. Click on weekly to see weekly reports' data.



The screenshot shows a web application window titled "Weekly". Inside the window, there is a table with two columns: "Programme" and "Total Student". The table has two rows of data. The first row shows "Multimedia Technologies" with a total of 1 student. The second row shows "Networks and IT Secu..." with a total of 1 student. The table is displayed on a light blue background.

Programme	Total Student
Multimedia Technologies	1
Networks and IT Secu...	1

Figure 7 Weekly report

7. Click on total number of student on each program to view student chart

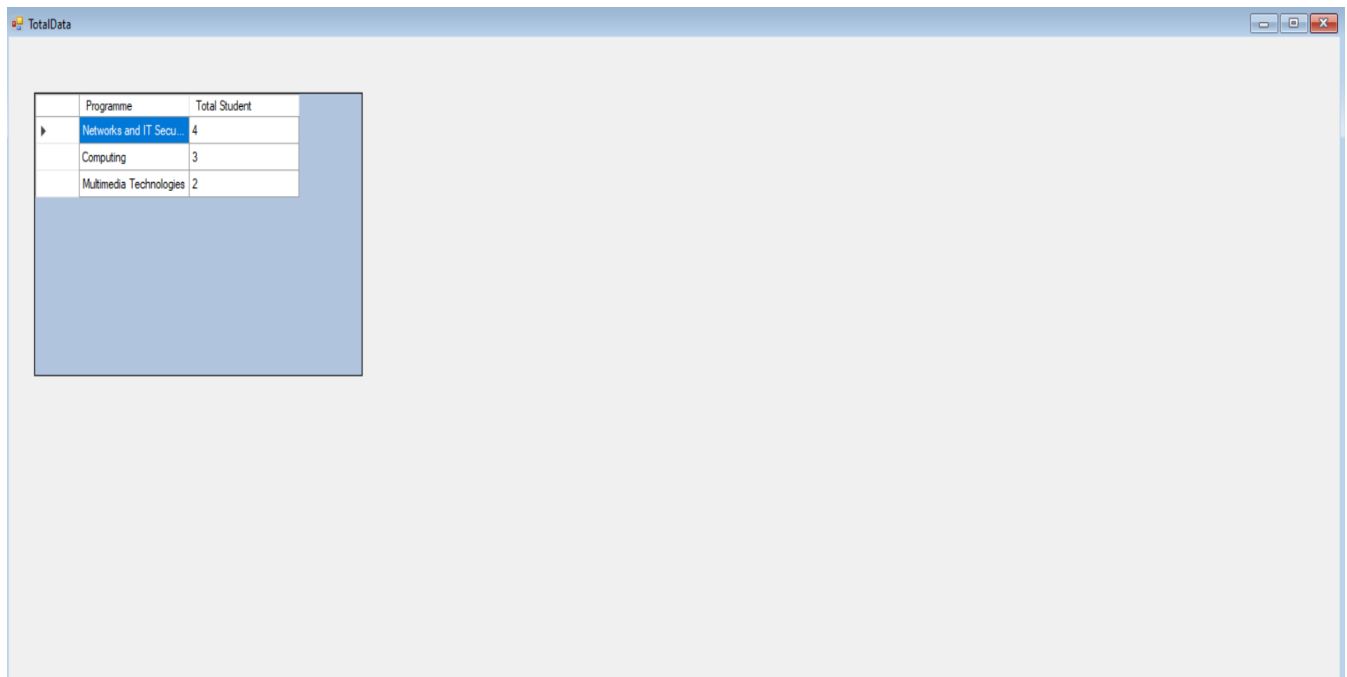
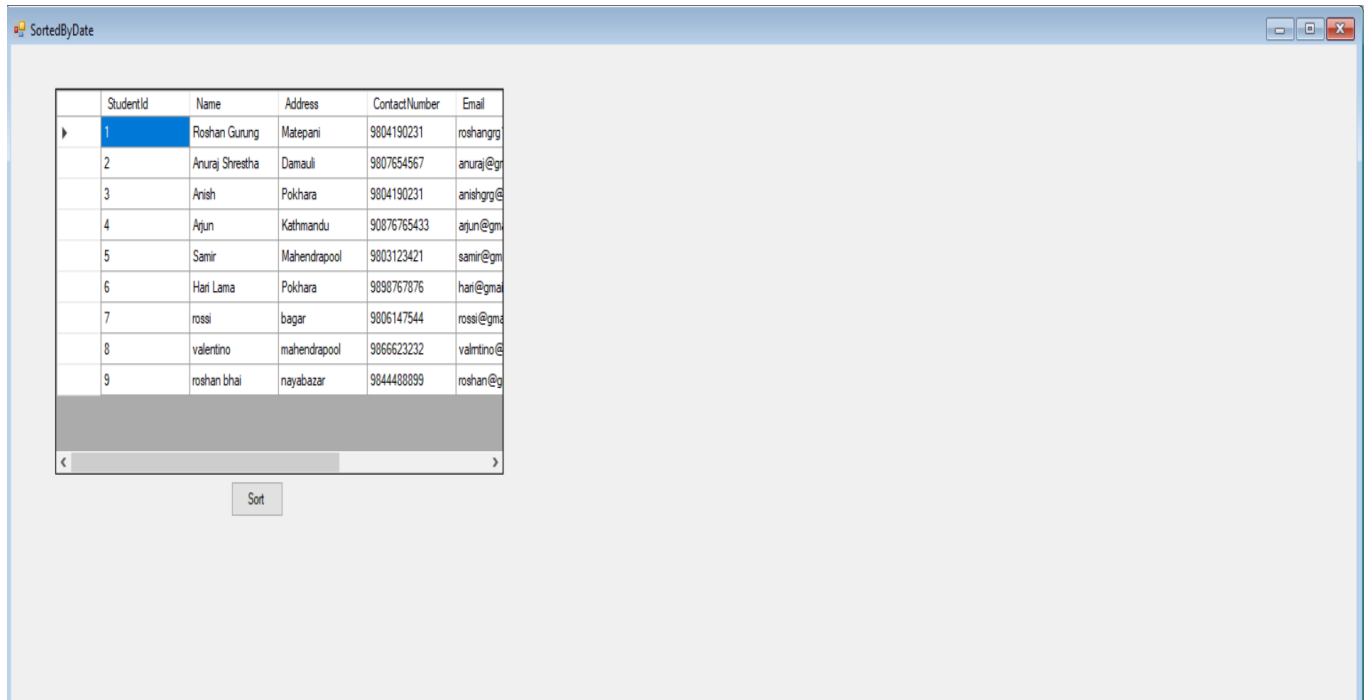


Figure 8 total number chart

8. Click on report to view sorting names



StudentId	Name	Address	ContactNumber	Email
1	Roshan Gurung	Matepani	9804190231	roshangrg
2	Anuraj Shrestha	Damauli	9807654567	anuraj@gr
3	Anish	Pokhara	9804190231	anishgrg@
4	Ajun	Kathmandu	90876765433	arjun@gm
5	Samir	Mahendrapool	9803123421	samir@gm
6	Hari Lama	Pokhara	9898767876	han@gma
7	rossi	bagar	9806147544	rossi@gm
8	valentino	mahendrapool	9866623232	valentino@
9	roshan bhai	nayabazar	9844488899	roshan@g

Sort

Figure 9 Sorting

5. Architecture

The figure above shows the architecture of the system. The home being the main page; the other pages or classes are branches of the home or further branches of page directly opened from home as well as important functionalities or methods called.

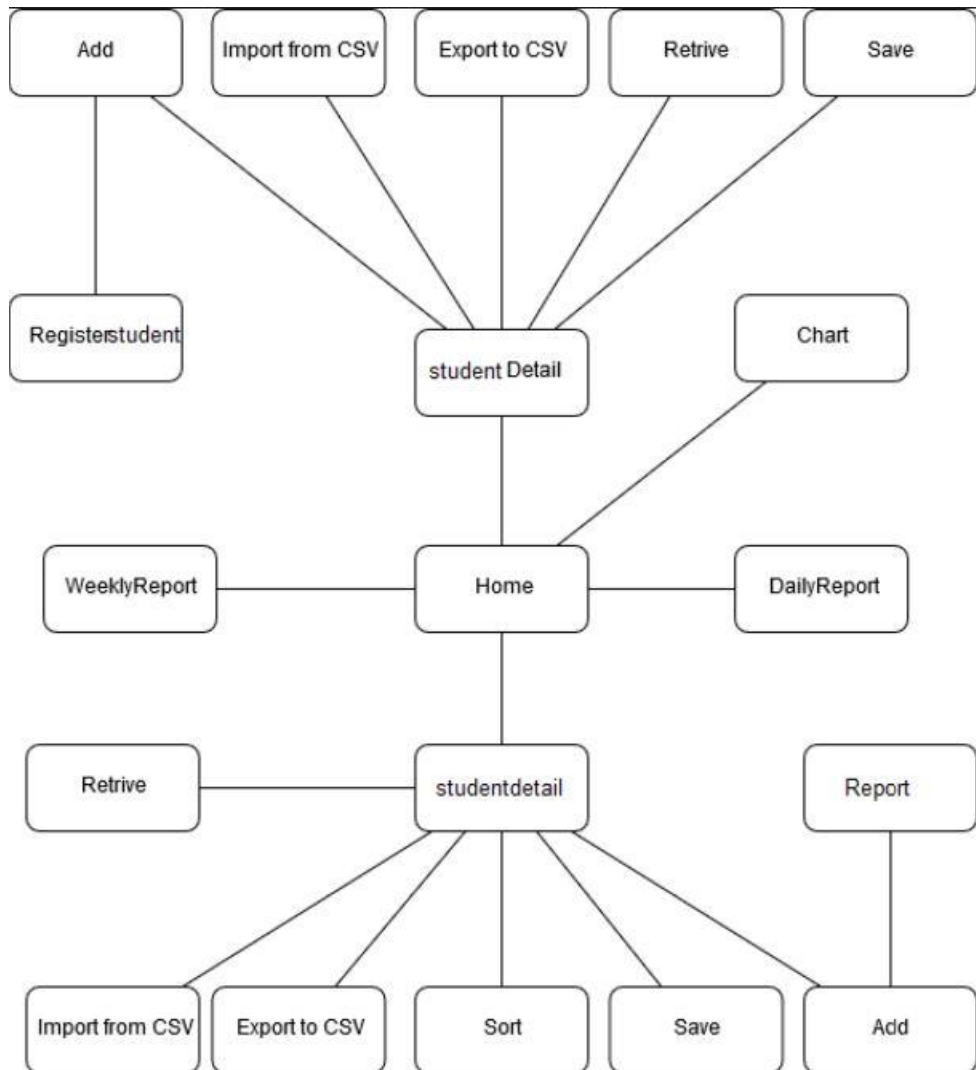


Figure 10 Architecture

6. Functionality

The application boasts following functions:

Import students' detail from a text file (e.g. in .CSV format), or allow users to manually input students' details, which include first name, email, contact no and registration date.

Allow user to input details of students. Based on students details, weekly enrolment details is published and generated.

Students and their details have been assigned unique ids. The ids have been auto-generated.

Generate and display two different reports: a daily report by listing the total number of students with tabular report; and the other weekly report, that include number of students enrolled so far in each program offered by the institution.

Generate and display chart that shows total number of student on each program such as computing, multimedia and networking.

Save and retrieve the student enrol status with student details

Sort the student details with registration date and registration name.

7. Algorithm

Bubble Sort

Sorting was done using Bubble Sort. It sorts data in an array by swapping those data repeatedly if they are wrong in order.

Example:

First Pass:

(5 1 4 2 8) \rightarrow (1 5 4 2 8), Here, the first two data are swaps since $5 > 1$.

(1 5 4 2 8) \rightarrow (1 4 5 2 8), Swap since $5 > 4$

(1 4 5 2 8) \rightarrow (1 4 2 5 8), Swap since $5 > 2$

(1 4 2 5 8) \rightarrow (1 4 2 5 8), Now, since these elements are already in order ($8 > 5$), algorithm stop.

Second Pass:

(1 4 2 5 8) \rightarrow (1 4 2 5 8)

(1 4 2 5 8) \rightarrow (1 2 4 5 8), Swap since $4 > 2$

(1 2 4 5 8) \rightarrow (1 2 4 5 8)

(1 2 4 5 8) \rightarrow (1 2 4 5 8)

Now, the array is already sorted, however algorithm needs one whole pass without any swap to know it is sorted.

Third Pass:

(1 2 4 5 8) \rightarrow (1 2 4 5 8)

(1 2 4 5 8) \rightarrow (1 2 4 5 8)

(1 2 4 5 8) \rightarrow (1 2 4 5 8)

(1 2 4 5 8) \rightarrow (1 2 4 5 8)

8. Class Diagram

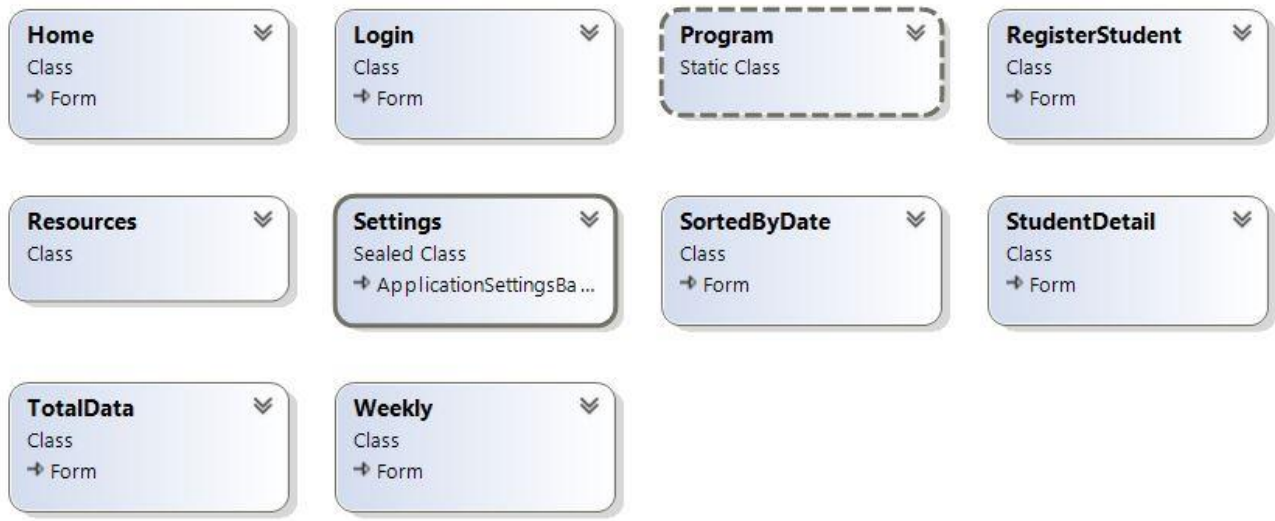


Figure 11 Class diagram

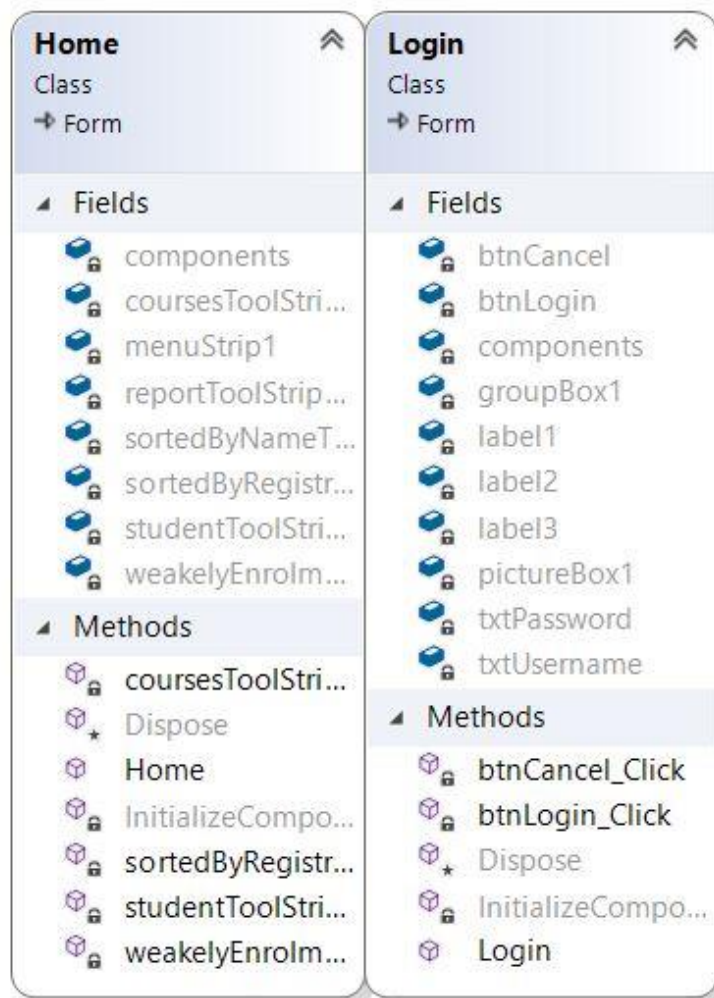


Figure 12 Home login CD

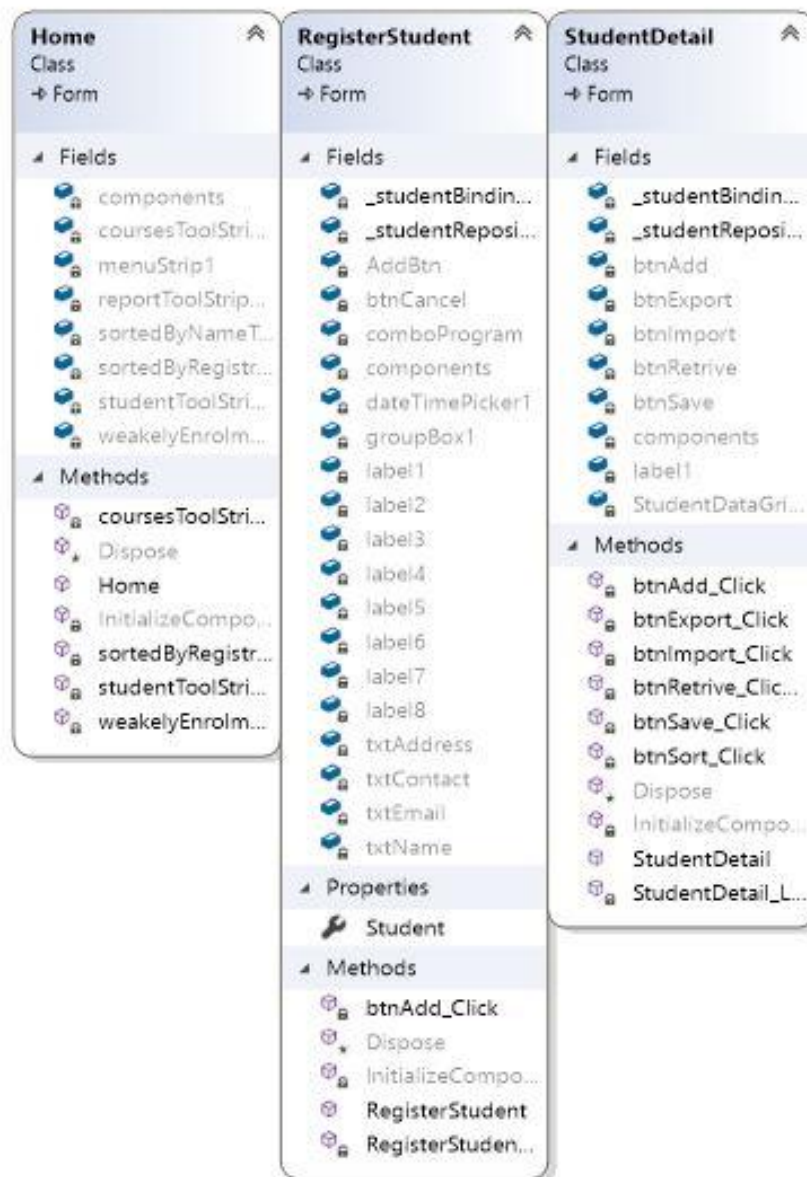


Figure 13 Student Detail student Repository

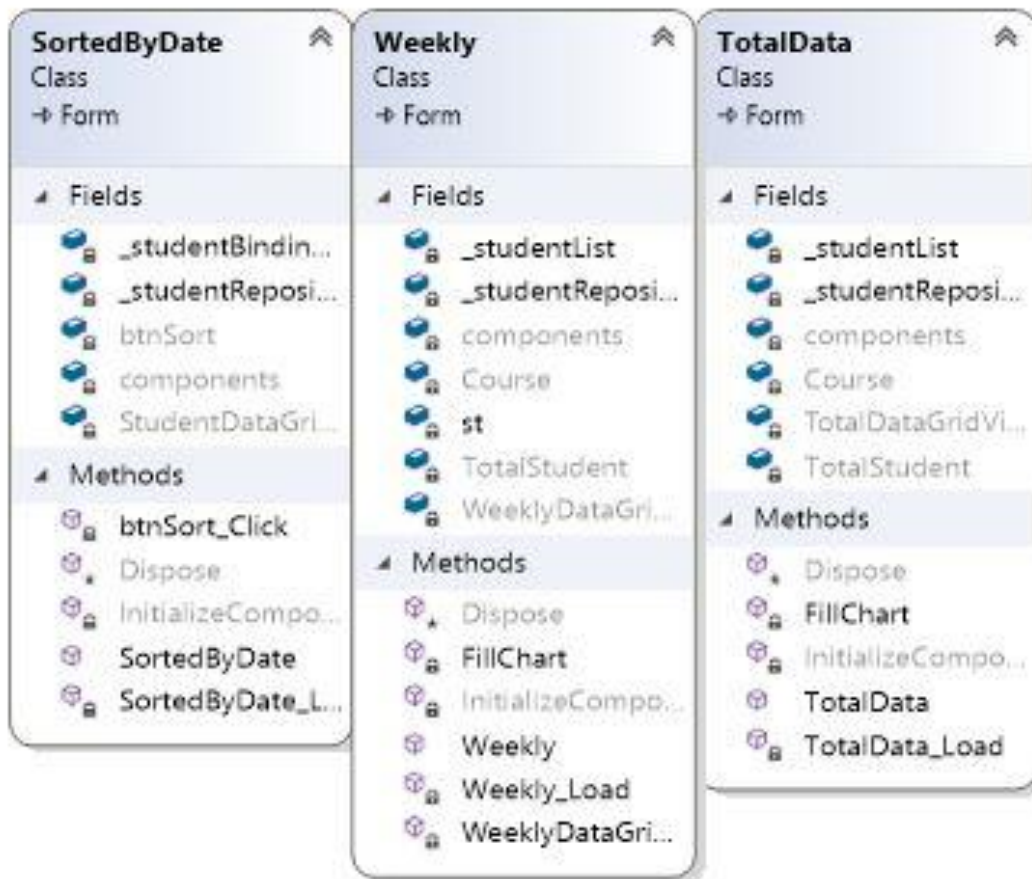


Figure 14 Sorted by date and Name

9. Testing

9.1 Test Case 1

Objective	Retrieve students' data
Action	Click on Register
Expected Result	Grid tabulated with students' data
Actual Result	Grid tabulated with students' data
Conclusion	Successfully executed

Table 1: Test Case 1

Register Student Weekly Enrolment Report Total student on each program Report

StudentDetail

Student Details						
StudentId	Name	Address	ContactNumber	Email	Program/Enroll	RegistrationDate
1	Roshan Gurung	Malepani	9804190231	roshangg125@ig...	Computing	12/7/2019
2	Anuraj Shrestha	Damauli	9807654567	anuraj@gmail.com	Computing	12/7/2019
3	Anish	Pokhara	9804190231	anishrg@gmail...	Networks and IT ...	12/27/2019
4	Ajun	Kathmandu	90876765433	ajun@gmail.com	Multimedia Tech...	12/27/2019
5	Samir	Mahendrapool	9803123421	samir@gmail.com	Networks and IT ...	12/26/2019
6	Hari Lama	Pokhara	9808767876	hari@gmail.com	Networks and IT ...	12/28/2019
7	rossi	bagar	9806147544	rossi@gmail.com	Computing	1/5/2020
8	valentino	mahendrapool	9966623232	valentino@gmail...	Multimedia Tech...	1/10/2020

Add Import From CSV Export To CSV Save Retrive

Figure 15 Test case 1

9.2 Test Case 2

Objective	Retrieve weekly' data
Action	Click on weekly
Expected Result	Grid tabulated with programme' data
Actual Result	Grid tabulated with programme' data
Conclusion	Successfully executed

Table 2: Test Case 2

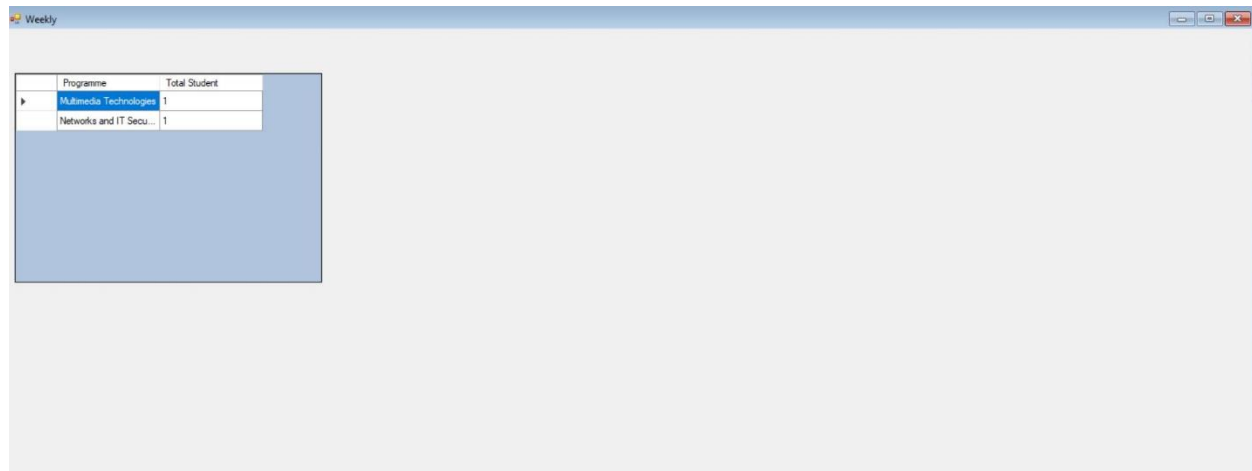


Figure 16 Test case 2

9.3 Test Case 3

Objective	Export to .csv file
Action	Click on Export to CSV button
Expected Result	CSV file created and populated
Actual Result	CSV file created and populated
Conclusion	Successfully executed

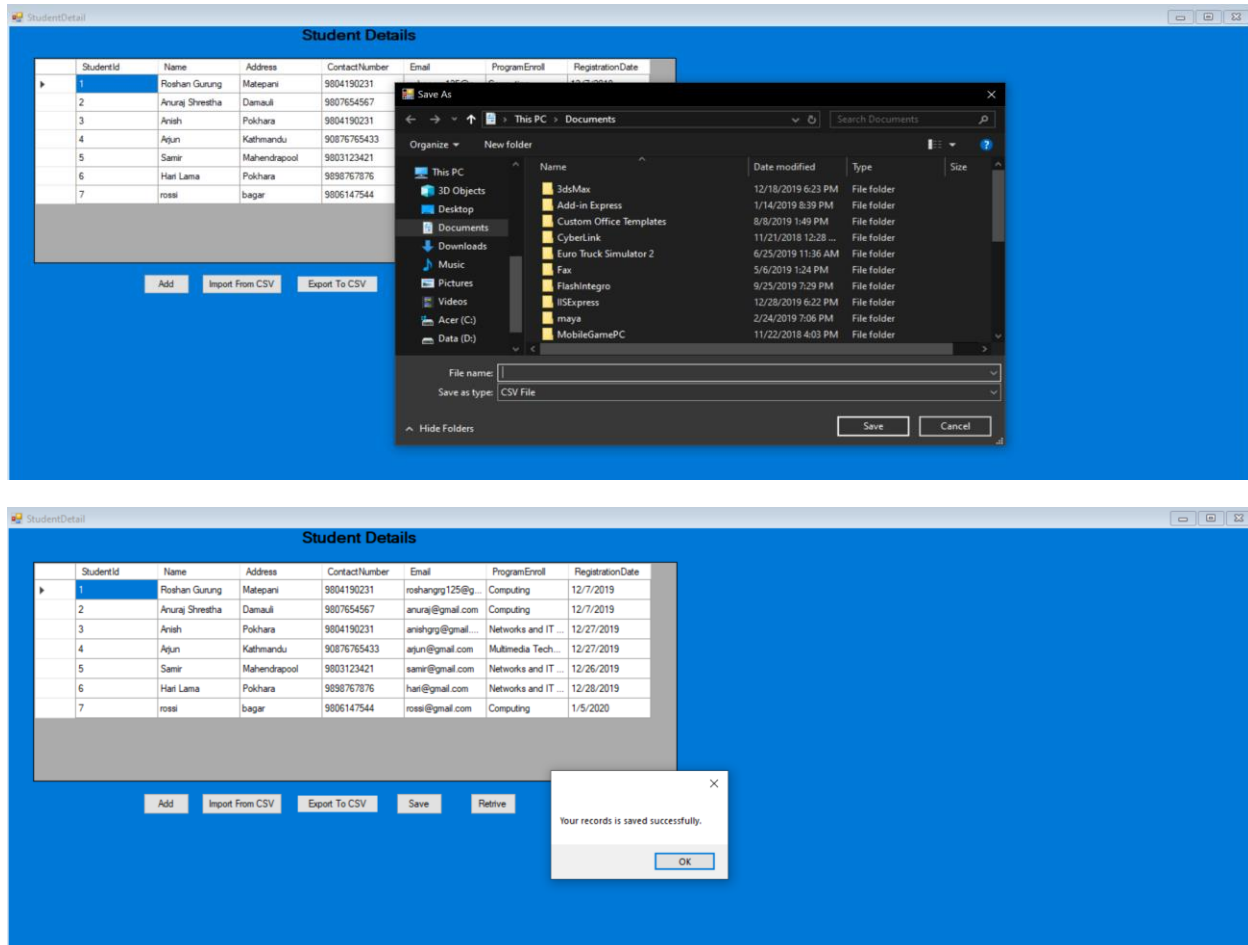


Figure 17 Test Case 3

AutoSave ☐ Off export - Excel

File Home Insert Page Layout Formulas Data Review View Help

Clipboard: Paste Cut Copy Format Painter

Font: Calibri 11

Alignment:

POSSIBLE DATA LOSS Some features might be lost if you save this workbook in the comma-delimited format.

A1 StudentId

	A	B	C	D	E	F	G	H	I
1	StudentId	Name	Address	ContactNu	Email	ProgramEr	RegistrationDate		
2	1	Roshan Gu	Matepani	9.8E+09	roshangrg	Computing	#####		
3	2	Anuraj Shr	Damauli	9.81E+09	anuraj@gr	Computing	#####		
4	3	Anish	Pokhara	9.8E+09	anishgrg@	Networks	#####		
5	4	Arjun	Kathmand	9.09E+10	arjun@gm	Multimedi	#####		
6	5	Samir	Mahendra	9.8E+09	samir@gm	Networks	#####		
7	6	Hari Lama	Pokhara	9.9E+09	hari@gma	Networks	#####		
8	7	rossi	bagar	9.81E+09	rossi@gma	Computing	#####		
9									

Figure 18 Export to CSV file

9.4 Test Case 4

Objective	Import from .csv file
Action	Click on Import form CSV button
Expected Result	Grid populated with CSV data
Actual Result	Grid populated with CSV data
Conclusion	Successfully executed

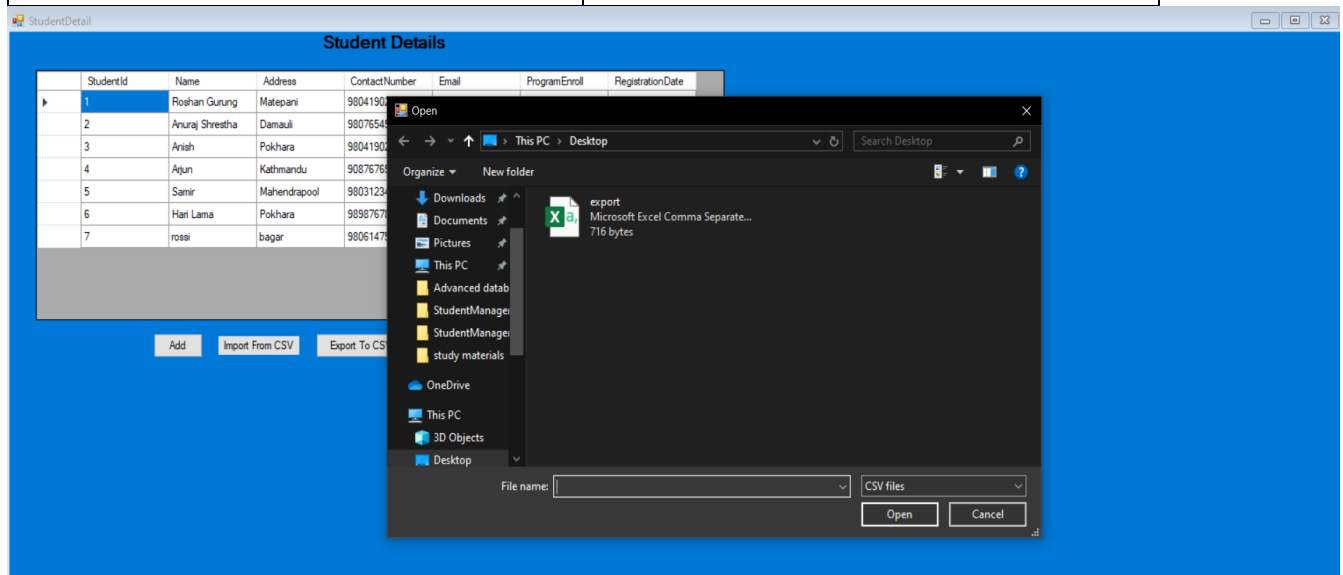
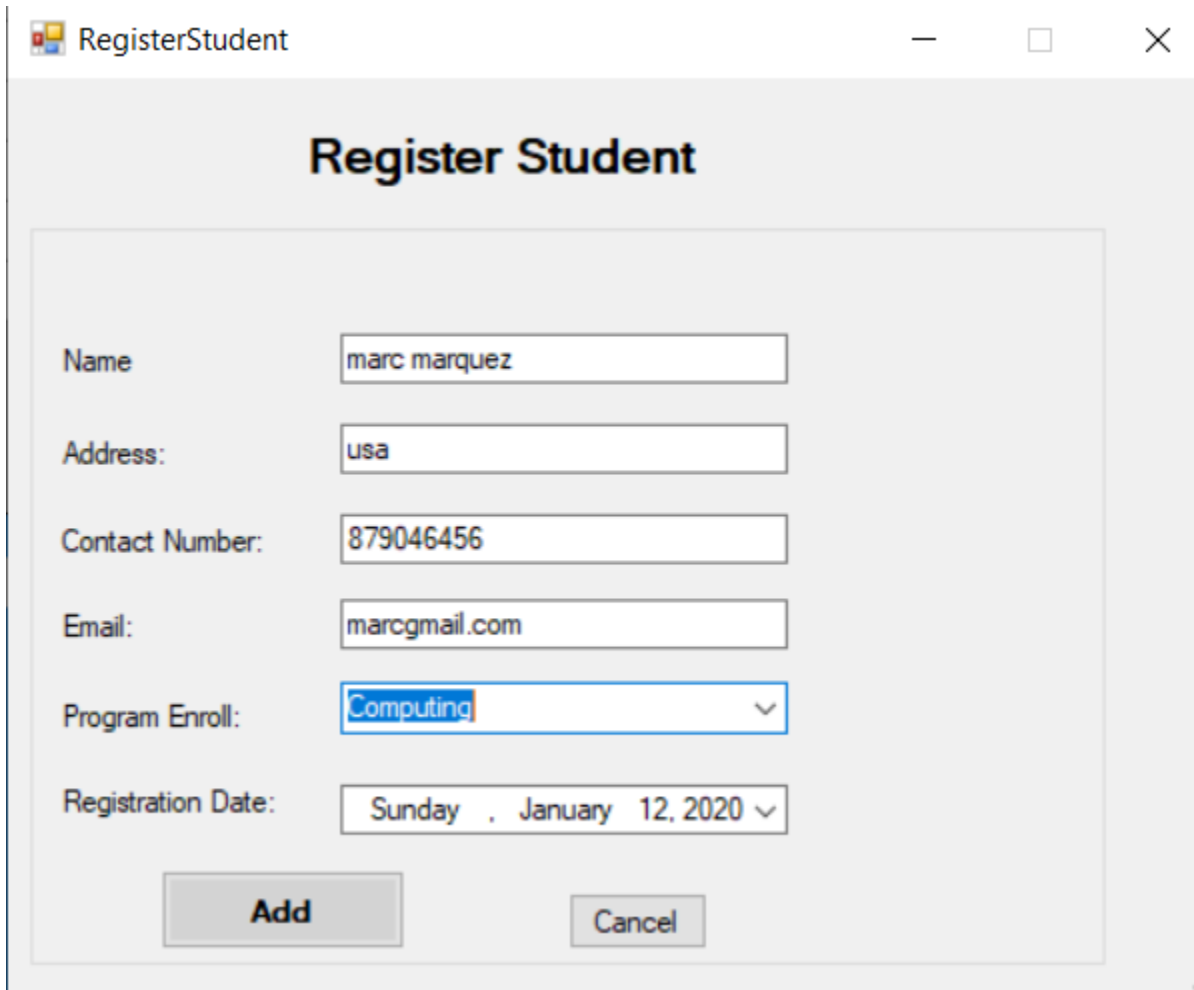


Figure 19 Test case 4

9.5 Test Case 5

Objective	Add to grid
Action	Enter data and click Add
Expected Result	Data added
Actual Result	Data added
Conclusion	Successfully executed

Table 3: Test Case 5



The screenshot shows a window titled "RegisterStudent" with a form titled "Register Student". The form contains the following fields and values:

- Name: marc marquez
- Address: usa
- Contact Number: 879046456
- Email: marcgmail.com
- Program Enroll: Computing (dropdown menu)
- Registration Date: Sunday , January 12, 2020 (dropdown menu)

At the bottom of the form are two buttons: "Add" and "Cancel".

Figure 20 Test case 5

StudentDetail

Student Details

	StudentId	Name	Address	ContactNumber	Email	ProgramEnroll	RegistrationDate
▶	1	Roshan Gurung	Matepani	9804190231	roshangrg125@g...	Computing	12/7/2019
	2	Anuraj Shrestha	Damauli	9807654567	anuraj@gmail.com	Computing	12/7/2019
	3	Anish	Pokhara	9804190231	anishgrg@gmail....	Networks and IT ...	12/27/2019
	4	Ajun	Kathmandu	98076765433	arjun@gmail.com	Multimedia Tech...	12/27/2019
	5	Samir	Mahendrapool	9803123421	samir@gmail.com	Networks and IT ...	12/26/2019
	6	Hari Lama	Pokhara	9898767876	hari@gmail.com	Networks and IT ...	12/28/2019
	7	rossi	bagar	9806147544	rossi@gmail.com	Computing	1/5/2020
	8	marc marquez	usa	879046456	marcgmil.com	Computing	1/12/2020

Add Import From CSV Export To CSV Save Retrive

Student Details saved to file

OK

Figure 21 Student details saved

9.6 Test Case 6

Objective	Show weekly report
Action	Click on weekly Report menu item
Expected Result	weekly report displayed
Actual Result	weekly report displayed
Conclusion	Successfully executed

Table 6: Test Case 6

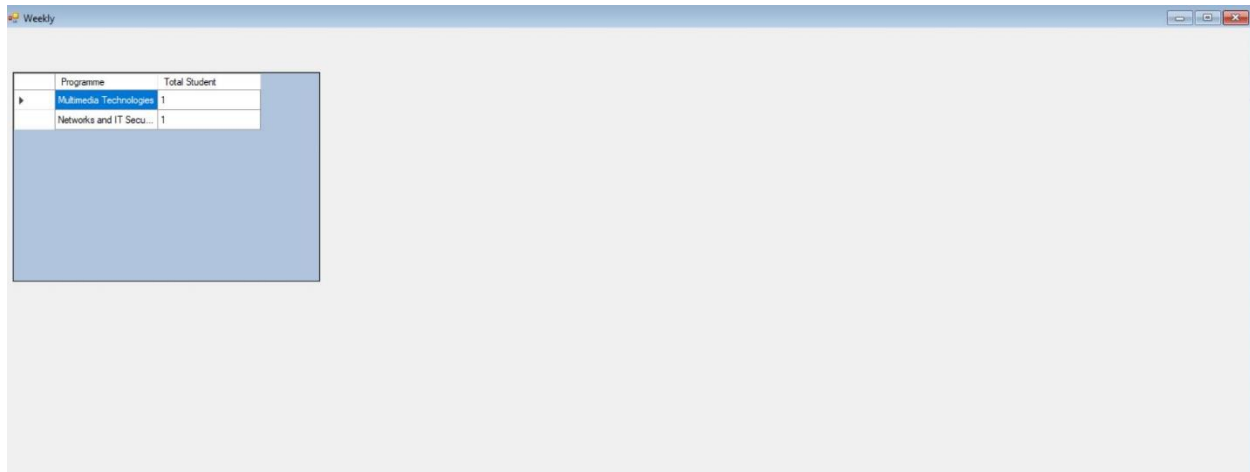


Figure 22 Test Case 6

9.7 Test Case 7

Objective	Show Total data
Action	Click on total student on each program
Expected Result	Total data displayed
Actual Result	Total data displayed
Conclusion	Successfully executed

Table 7: Test Case 7

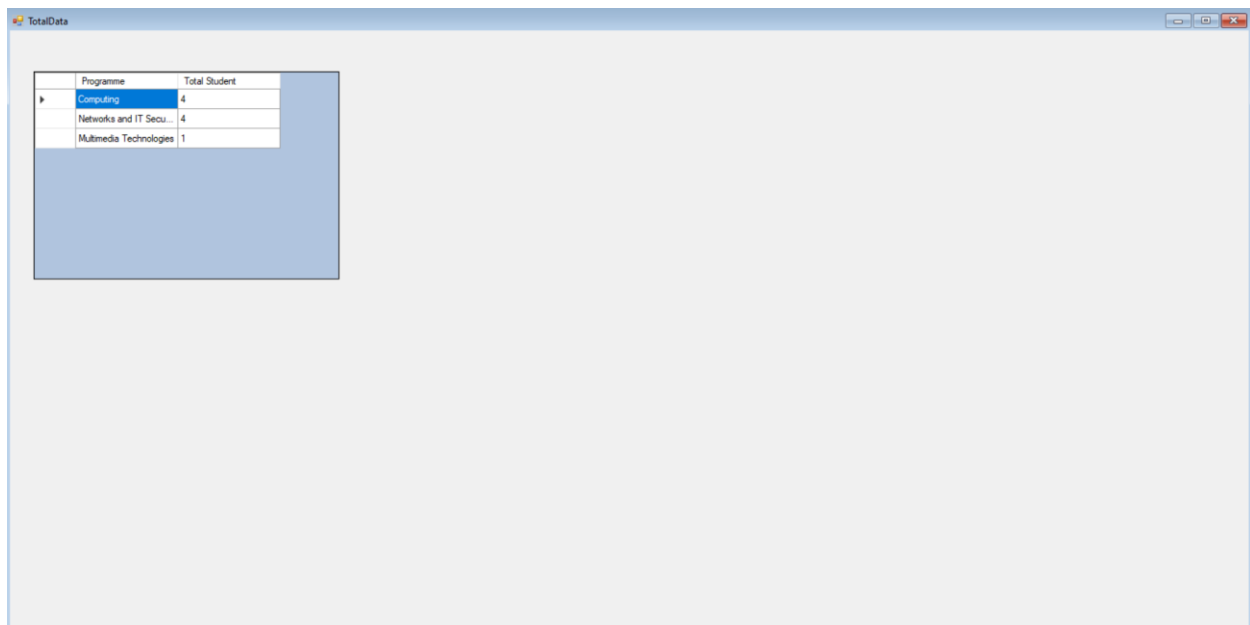


Figure 23 Test Case 7

9.8 Test Case 8

Objective	Sort by registration date
Action	Click on Sort by date
Expected Result	Rows sorted
Actual Result	Rows sorted
Conclusion	Successfully executed

Table 8: Test Case 8

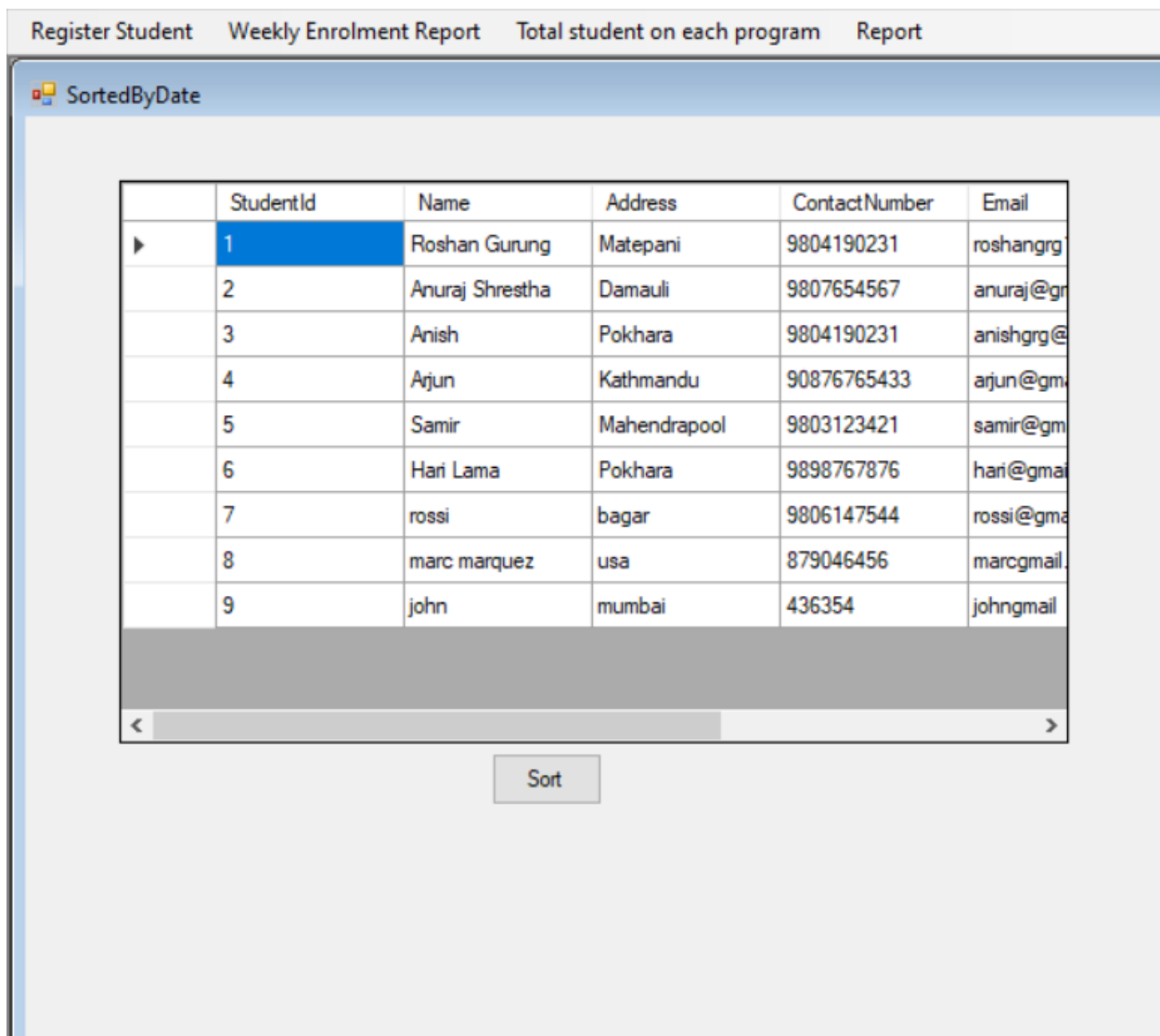


Figure 24 Test case 8

10. Reflection

The coursework has been carried out using Visual Studio 2019. Visual Studio offers designing the UI using drag and drop method. This make it easier for users to create designs which would have been bothersome if done programmatically. It is also efficient in detecting errors while showing the developer where exactly the error has occurred (stating the file name as well as the line).

The project has helped me to grow my creativity while benefiting to develop my programming skill. Getting introduced to a new programming language and IDE through this course has open new paths for me as a developer.

11. References

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Available at: <https://www.codeproject.com/Articles/30542/Create-One-Application-for-both-Desktop-and-Web>

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Available at: <https://www.geeksforgeeks.org/bubble-sort/>

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Rasheed, F., 2006. Classes and Objects. In: T. Nestenius, J. Worthington & A. Lee, eds. *Programmers Heaven: C# School*. Fuengirola: Synchron Data S.L, pp. 53-76.

Rasheed, F., 2006. Exception Handling. In: T. Nestenius, J. Worthington & A. Lee, eds. *Programmer's Heaven C# School*. Fuengirola: Synchron Data S.L, pp. 155-168.

Svetlin Nokav & Co., 2013. Loops. In: *Fundamentals of Computer Programming with C#*. s.l.:Telerik corporation, pp. 211-230.

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12. Appendix

Program.cs

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Threading.Tasks;
using System.Windows.Forms;

namespace StudentManagementSystem
{
    static class Program
    {
        /// <summary>
        /// The main entry point for the application.
        /// </summary>
        [STAThread]
        static void Main()
        {
            Application.EnableVisualStyles();
            Application.SetCompatibleTextRenderingDefault(false);
            Application.Run(new Login());
        }
    }
}
```

Home.cs

```
namespace StudentManagementSystem
{
    partial class Home
    {
        /// <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.menuStrip1 = new System.Windows.Forms.MenuStrip();
    this.studentToolStripMenuItem = new System.Windows.Forms.ToolStripItem();
    this.weaklyEnrolmentReportToolStripMenuItem = new
System.Windows.Forms.ToolStripItem();
    this.coursesToolStripMenuItem = new System.Windows.Forms.ToolStripItem();
    this.reportToolStripMenuItem = new System.Windows.Forms.ToolStripItem();
    this.sortedByRegistrationDateToolStripMenuItem = new
System.Windows.Forms.ToolStripItem();
    this.sortedByNameToolStripMenuItem = new
System.Windows.Forms.ToolStripItem();
    this.menuStrip1.SuspendLayout();
    this.SuspendLayout();
    //
    // menuStrip1
    //
    this.menuStrip1.ImageScalingSize = new System.Drawing.Size(20, 20);
    this.menuStrip1.Items.AddRange(new System.Windows.Forms.ToolStripItem[] {
    this.studentToolStripMenuItem,
    this.weaklyEnrolmentReportToolStripMenuItem,
    this.coursesToolStripMenuItem,
    this.reportToolStripMenuItem});
    this.menuStrip1.Location = new System.Drawing.Point(0, 0);
    this.menuStrip1.Name = "menuStrip1";
    this.menuStrip1.Size = new System.Drawing.Size(800, 28);
    this.menuStrip1.TabIndex = 0;
    this.menuStrip1.Text = "menuStrip1";
    //
    // studentToolStripMenuItem
    //
    this.studentToolStripMenuItem.Name = "studentToolStripMenuItem";
    this.studentToolStripMenuItem.Size = new System.Drawing.Size(132, 24);
    this.studentToolStripMenuItem.Text = "Register Student";
    this.studentToolStripMenuItem.Click += new
System.EventHandler(this.studentToolStripMenuItem_Click);
    //
    // weaklyEnrolmentReportToolStripMenuItem
    //
    this.weaklyEnrolmentReportToolStripMenuItem.Name =
"weaklyEnrolmentReportToolStripMenuItem";
    this.weaklyEnrolmentReportToolStripMenuItem.Size = new
System.Drawing.Size(191, 24);
    this.weaklyEnrolmentReportToolStripMenuItem.Text = "Weekly Enrolment
Report";
    this.weaklyEnrolmentReportToolStripMenuItem.Click += new
System.EventHandler(this.weaklyEnrolmentReportToolStripMenuItem_Click);
    //
    // coursesToolStripMenuItem
    //
    this.coursesToolStripMenuItem.Name = "coursesToolStripMenuItem";
    this.coursesToolStripMenuItem.Size = new System.Drawing.Size(227, 24);
    this.coursesToolStripMenuItem.Text = "Total student on each program";
}

```

```

        this.coursesToolStripMenuItem.Click += new
System.EventHandler(this.coursesToolStripMenuItem_Click);
        //
        // reportToolStripMenuItem
        //
        this.reportToolStripMenuItem.DropDownItems.AddRange(new
System.Windows.Forms.ToolStripItem[] {
            this.sortedByRegistrationDateToolStripMenuItem,
            this.sortedByNameToolStripMenuItem});
        this.reportToolStripMenuItem.Name = "reportToolStripMenuItem";
        this.reportToolStripMenuItem.Size = new System.Drawing.Size(68, 24);
        this.reportToolStripMenuItem.Text = "Report";
        //
        // sortedByRegistrationDateToolStripMenuItem
        //
        this.sortedByRegistrationDateToolStripMenuItem.Name =
"sortedByRegistrationDateToolStripMenuItem";
        this.sortedByRegistrationDateToolStripMenuItem.Size = new
System.Drawing.Size(276, 26);
        this.sortedByRegistrationDateToolStripMenuItem.Text = "Sorted by Registration
Date";
        this.sortedByRegistrationDateToolStripMenuItem.Click += new
System.EventHandler(this.sortedByRegistrationDateToolStripMenuItem_Click);
        //
        // sortedByNameToolStripMenuItem
        //
        this.sortedByNameToolStripMenuItem.Name = "sortedByNameToolStripMenuItem";
        this.sortedByNameToolStripMenuItem.Size = new System.Drawing.Size(276, 26);
        this.sortedByNameToolStripMenuItem.Text = "Sorted by Name";
        //
        // Home
        //
        this.AutoScaleDimensions = new System.Drawing.SizeF(8F, 16F);
        this.AutoScaleMode = System.Windows.Forms.AutoScaleMode.Font;
        this.BackgroundImage =
global::StudentManagementSystem.Properties.Resources.school;
        this.BackgroundImageLayout = System.Windows.Forms.ImageLayout.Center;
        this.ClientSize = new System.Drawing.Size(800, 450);
        this.Controls.Add(this.menuStrip1);
        this.DoubleBuffered = true;
        this.IsMdiContainer = true;
        this.MainMenuStrip = this.menuStrip1;
        this.Name = "Home";
        this.StartPosition = System.Windows.Forms.FormStartPosition.CenterScreen;
        this.Text = "Home";
        this.WindowState = System.Windows.Forms.FormWindowState.Maximized;
        this.menuStrip1.ResumeLayout(false);
        this.menuStrip1.PerformLayout();
        this.ResumeLayout(false);
        this.PerformLayout();

    }

    #endregion

    private System.Windows.Forms.MenuStrip menuStrip1;
    private System.Windows.Forms.ToolStripItem studentToolStripMenuItem;

```

```

        private System.Windows.Forms.ToolStripMenuItem
weakelyEnrolmentReportToolStripMenuItem;
        private System.Windows.Forms.ToolStripMenuItem coursesToolStripMenuItem;
        private System.Windows.Forms.ToolStripMenuItem reportToolStripMenuItem;
        private System.Windows.Forms.ToolStripMenuItem
sortedByRegistrationDateToolStripMenuItem;
        private System.Windows.Forms.ToolStripMenuItem sortedByNameToolStripMenuItem;
    }
}

```

StudentDetail.cs

```

partial class StudentDetail
{
    /// <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.StudentDataGridView = new System.Windows.Forms.DataGrid();
        this.btnAdd = new System.Windows.Forms.Button();
        this.btnImport = new System.Windows.Forms.Button();
        this.btnExport = new System.Windows.Forms.Button();
        this.btnSave = new System.Windows.Forms.Button();
        this.btnRetrive = new System.Windows.Forms.Button();
        this.label1 = new System.Windows.Forms.Label();

        ((System.ComponentModel.ISupportInitialize)(this.StudentDataGridView)).BeginInit();
        this.SuspendLayout();
        //
        // StudentDataGridView
        //
        this.StudentDataGridView.ColumnHeadersHeightSizeMode =
System.Windows.Forms.DataGridColumnHeadersHeightSizeMode.AutoSize;
    }
}

```

```

this.StudentDataGridView.Location = new System.Drawing.Point(40, 50);
this.StudentDataGridView.Name = "StudentDataGridView";
this.StudentDataGridView.RowHeadersWidth = 51;
this.StudentDataGridView.RowTemplate.Height = 24;
this.StudentDataGridView.Size = new System.Drawing.Size(1045, 329);
this.StudentDataGridView.TabIndex = 0;
//
// btnAdd
//
this.btnAdd.Location = new System.Drawing.Point(219, 396);
this.btnAdd.Name = "btnAdd";
this.btnAdd.Size = new System.Drawing.Size(75, 32);
this.btnAdd.TabIndex = 1;
this.btnAdd.Text = "Add";
this.btnAdd.UseVisualStyleBackColor = true;
this.btnAdd.Click += new System.EventHandler(this.btnAdd_Click);
//
// btnImport
//
this.btnImport.Location = new System.Drawing.Point(313, 396);
this.btnImport.Name = "btnImport";
this.btnImport.Size = new System.Drawing.Size(130, 32);
this.btnImport.TabIndex = 2;
this.btnImport.Text = "Import From CSV";
this.btnImport.UseVisualStyleBackColor = true;
this.btnImport.Click += new System.EventHandler(this.btnImport_Click);
//
// btnExport
//
this.btnExport.Location = new System.Drawing.Point(465, 396);
this.btnExport.Name = "btnExport";
this.btnExport.Size = new System.Drawing.Size(137, 32);
this.btnExport.TabIndex = 3;
this.btnExport.Text = "Export To CSV";
this.btnExport.UseVisualStyleBackColor = true;
this.btnExport.Click += new System.EventHandler(this.btnExport_Click);
//
// btnSave
//
this.btnSave.Location = new System.Drawing.Point(629, 396);
this.btnSave.Name = "btnSave";
this.btnSave.Size = new System.Drawing.Size(75, 32);
this.btnSave.TabIndex = 4;
this.btnSave.Text = "Save";
this.btnSave.UseVisualStyleBackColor = true;
this.btnSave.Click += new System.EventHandler(this.btnSave_Click);
//
// btnRetrive
//
this.btnRetrive.Location = new System.Drawing.Point(749, 396);
this.btnRetrive.Name = "btnRetrive";
this.btnRetrive.Size = new System.Drawing.Size(75, 32);
this.btnRetrive.TabIndex = 5;
this.btnRetrive.Text = "Retrive";
this.btnRetrive.UseVisualStyleBackColor = true;
this.btnRetrive.Click += new System.EventHandler(this.btnRetrive_Click_1);
//

```

```

        // label1
        //
        this.label1.AutoSize = true;
        this.label1.Font = new System.Drawing.Font("Kristen ITC", 13.8F,
System.Drawing.FontStyle.Bold, System.Drawing.GraphicsUnit.Point, ((byte)(0)));
        this.label1.Location = new System.Drawing.Point(471, -1);
        this.label1.Name = "label1";
        this.label1.Size = new System.Drawing.Size(214, 33);
        this.label1.TabIndex = 7;
        this.label1.Text = "Student Details";
        //
        // StudentDetail
        //
        this.AutoScaleDimensions = new System.Drawing.SizeF(8F, 16F);
        this.AutoScaleMode = System.Windows.Forms.AutoScaleMode.Font;
        this.ClientSize = new System.Drawing.Size(1204, 450);
        this.Controls.Add(this.label1);
        this.Controls.Add(this.btnRetrieve);
        this.Controls.Add(this.btnSave);
        this.Controls.Add(this.btnExport);
        this.Controls.Add(this.btnImport);
        this.Controls.Add(this.btnAdd);
        this.Controls.Add(this.StudentDataGridView);
        this.Name = "StudentDetail";
        this.StartPosition = System.Windows.Forms.FormStartPosition.CenterScreen;
        this.Text = "StudentDetail";
        this.Load += new System.EventHandler(this.StudentDetail_Load);

        ((System.ComponentModel.ISupportInitialize)(this.StudentDataGridView)).EndInit();
        this.ResumeLayout(false);
        this.PerformLayout();

    }

    #endregion

    private System.Windows.Forms.DataGridView StudentDataGridView;
    private System.Windows.Forms.Button btnAdd;
    private System.Windows.Forms.Button btnImport;
    private System.Windows.Forms.Button btnExport;
    private System.Windows.Forms.Button btnSave;
    private System.Windows.Forms.Button btnRetrieve;
    private System.Windows.Forms.Label label1;
}

```

Login.cs


```

namespace StudentManagementSystem
{
    partial class Login
    {
        /// <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()
        {
            System.ComponentModel.ComponentResourceManager resources = new
System.ComponentModel.ComponentResourceManager(typeof(Login));
            this.label1 = new System.Windows.Forms.Label();
            this.txtUsername = new System.Windows.Forms.TextBox();
            this.btnLogin = new System.Windows.Forms.Button();
            this.groupBox1 = new System.Windows.Forms.GroupBox();
            this.label3 = new System.Windows.Forms.Label();
            this.btnCancel = new System.Windows.Forms.Button();
            this.txtPassword = new System.Windows.Forms.TextBox();
            this.label2 = new System.Windows.Forms.Label();
            this.pictureBox1 = new System.Windows.Forms.PictureBox();
            this.groupBox1.SuspendLayout();
            ((System.ComponentModel.ISupportInitialize)(this.pictureBox1)).BeginInit();
            this.SuspendLayout();
            //
            // label1
            //
            this.label1.AutoSize = true;
            this.label1.Location = new System.Drawing.Point(51, 266);
            this.label1.Name = "label1";
            this.label1.Size = new System.Drawing.Size(77, 17);
            this.label1.TabIndex = 0;
            this.label1.Text = "Username:";
            //
            // txtUsername
            //
        }

        #endregion
    }
}

```

```

this.txtUsername.Location = new System.Drawing.Point(142, 261);
this.txtUsername.Name = "txtUsername";
this.txtUsername.Size = new System.Drawing.Size(212, 22);
this.txtUsername.TabIndex = 1;
//
// btnLogin
//
this.btnLogin.Location = new System.Drawing.Point(124, 368);
this.btnLogin.Name = "btnLogin";
this.btnLogin.Size = new System.Drawing.Size(75, 30);
this.btnLogin.TabIndex = 2;
this.btnLogin.Text = "Login";
this.btnLogin.UseVisualStyleBackColor = true;
this.btnLogin.Click += new System.EventHandler(this.btnLogin_Click);
//
// groupBox1
//
this.groupBox1.Controls.Add(this.pictureBox1);
this.groupBox1.Controls.Add(this.label3);
this.groupBox1.Controls.Add(this.btnCancel);
this.groupBox1.Controls.Add(this.txtPassword);
this.groupBox1.Controls.Add(this.btnLogin);
this.groupBox1.Controls.Add(this.label2);
this.groupBox1.Controls.Add(this.txtUsername);
this.groupBox1.Controls.Add(this.label1);
this.groupBox1.Location = new System.Drawing.Point(34, 12);
this.groupBox1.Name = "groupBox1";
this.groupBox1.Size = new System.Drawing.Size(467, 436);
this.groupBox1.TabIndex = 3;
this.groupBox1.TabStop = false;
this.groupBox1.Text = "Login";
//
// label3
//
this.label3.AutoSize = true;
this.label3.Font = new System.Drawing.Font("Kristen ITC", 13.8F,
System.Drawing.FontStyle.Bold, System.Drawing.GraphicsUnit.Point, ((byte)(0)));
this.label3.Location = new System.Drawing.Point(35, 28);
this.label3.Name = "label3";
this.label3.Size = new System.Drawing.Size(379, 33);
this.label3.TabIndex = 5;
this.label3.Text = "Student Management System";
//
// btnCancel
//
this.btnCancel.Location = new System.Drawing.Point(244, 368);
this.btnCancel.Name = "btnCancel";
this.btnCancel.Size = new System.Drawing.Size(75, 30);
this.btnCancel.TabIndex = 4;
this.btnCancel.Text = "Cancel";
this.btnCancel.UseVisualStyleBackColor = true;
this.btnCancel.Click += new System.EventHandler(this.btnCancel_Click);
//
// txtPassword
//
this.txtPassword.Location = new System.Drawing.Point(142, 318);
this.txtPassword.Name = "txtPassword";

```

```

        this.txtPassword.Size = new System.Drawing.Size(212, 22);
        this.txtPassword.TabIndex = 3;
        //
        // label2
        //
        this.label2.AutoSize = true;
        this.label2.Location = new System.Drawing.Point(51, 323);
        this.label2.Name = "label2";
        this.label2.Size = new System.Drawing.Size(73, 17);
        this.label2.TabIndex = 2;
        this.label2.Text = "Password:";
        //
        // pictureBox1
        //
        this.pictureBox1.Image =
            ((System.Drawing.Image)(resources.GetObject("pictureBox1.Image")));
        this.pictureBox1.Location = new System.Drawing.Point(142, 64);
        this.pictureBox1.Name = "pictureBox1";
        this.pictureBox1.Size = new System.Drawing.Size(212, 162);
        this.pictureBox1.TabIndex = 6;
        this.pictureBox1.TabStop = false;
        //
        // Login
        //
        this.AcceptButton = this.btnLogin;
        this.AutoScaleMode = new System.Drawing.SizeF(8F, 16F);
        this.AutoScaleMode = System.Windows.Forms.AutoScaleMode.Font;
        this.CancelButton = this.btnCancel;
        this.ClientSize = new System.Drawing.Size(535, 472);
        this.Controls.Add(this.groupBox1);
        this.Name = "Login";
        this.StartPosition = System.Windows.Forms.FormStartPosition.CenterScreen;
        this.Text = "Login";
        this.groupBox1.ResumeLayout(false);
        this.groupBox1.PerformLayout();
        ((System.ComponentModel.ISupportInitialize)(this.pictureBox1)).EndInit();
        this.ResumeLayout(false);

    }

#endregion

private System.Windows.Forms.Label label1;
private System.Windows.Forms.TextBox txtUsername;
private System.Windows.Forms.Button btnLogin;
private System.Windows.Forms.GroupBox groupBox1;
private System.Windows.Forms.Button btnCancel;
private System.Windows.Forms.TextBox txtPassword;
private System.Windows.Forms.Label label2;
private System.Windows.Forms.Label label3;
private System.Windows.Forms.PictureBox pictureBox1;
}
}

```

Weekly.cs

```

using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.IO;
using System.Linq;
using System.Runtime.Serialization.Formatters.Binary;
using System.Text;
using System.Threading.Tasks;
using System.Windows.Forms;
using BLL;
namespace StudentManagementSystem
{
    public partial class Weekly : Form
    {
        public Weekly()
        {
            InitializeComponent();
        }
        private StudentRepository _studentRepository = new StudentRepository();
        private List<Student> _studentList = new List<Student>();
        private Student st = new Student();

        private void WeeklyDataGridView_CellContentClick(object sender,
DataGridViewCellEventArgs e)
        {
        }

        private void Weekly_Load(object sender, EventArgs e)
        {
            _studentList = _studentRepository.GetWeeksData();

            FillChart();
        }

        private void FillChart()
        {
            foreach (var student in _studentList)
            {
                var a = student.Count1.ToString();
                var b = student.Name.ToString();

                string[] row = new string[] { b, a };
                WeeklyDataGridView.Rows.Add(row);
            }
        }
    }
}

```

```

        //var e = visit.VisitorName.ToString();

        //this.WeeklyDataGridView.Rows.Add(b, c, d);

        //}
    }
}

```

TotalData.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;
using BLL;

namespace StudentManagementSystem
{
    public partial class TotalData : Form
    {
        public TotalData()
        {
            InitializeComponent();
        }
        private StudentRepository _studentRepository = new StudentRepository();
        private List<Student> _studentList = new List<Student>();
        private void TotalData_Load(object sender, EventArgs e)
        {
            _studentList = _studentRepository.GetAllData();

            FillChart();
        }
        private void FillChart()
        {
            foreach (var student in _studentList)
            {
                var b = student.Count1.ToString();

                var e = student.Name.ToString();

                string[] row = new string[] { e, b };
                TotalDataGridView.Rows.Add(row);
            }
        }
    }
}

```

```

    }
}
}

```

Sortedbydate.cs

```

namespace StudentManagementSystem
{
    partial class SortedByDate
    {
        /// <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.StudentDataGridView = new System.Windows.Forms.DataGridView();
            this.btnSort = new System.Windows.Forms.Button();

            ((System.ComponentModel.ISupportInitialize)(this.StudentDataGridView)).BeginInit();
            this.SuspendLayout();
            //
            // StudentDataGridView
            //
            this.StudentDataGridView.ColumnHeadersHeightSizeMode =
System.Windows.Forms.DataGridViewColumnHeadersHeightSizeMode.AutoSize;
            this.StudentDataGridView.Location = new System.Drawing.Point(66, 42);
            this.StudentDataGridView.Name = "StudentDataGridView";
            this.StudentDataGridView.RowHeadersWidth = 51;
            this.StudentDataGridView.RowTemplate.Height = 24;
            this.StudentDataGridView.Size = new System.Drawing.Size(673, 368);
            this.StudentDataGridView.TabIndex = 0;
            //
            // btnSort

```

```

        //
        this.btnSort.Location = new System.Drawing.Point(330, 416);
        this.btnSort.Name = "btnSort";
        this.btnSort.Size = new System.Drawing.Size(79, 34);
        this.btnSort.TabIndex = 1;
        this.btnSort.Text = "Sort";
        this.btnSort.UseVisualStyleBackColor = true;
        this.btnSort.Click += new System.EventHandler(this.btnSort_Click);
        //
        // SortedByDate
        //
        this.AutoScaleDimensions = new System.Drawing.SizeF(8F, 16F);
        this.AutoScaleMode = System.Windows.Forms.AutoScaleMode.Font;
        this.ClientSize = new System.Drawing.Size(800, 462);
        this.Controls.Add(this.btnSort);
        this.Controls.Add(this.StudentDataGridView);
        this.Name = "SortedByDate";
        this.Text = "SortedByDate";
        this.Load += new System.EventHandler(this.SortedByDate_Load);

        ((System.ComponentModel.ISupportInitialize)(this.StudentDataGridView)).EndInit();
        this.ResumeLayout(false);

    }

    #endregion

    private System.Windows.Forms.DataGridView StudentDataGridView;
    private System.Windows.Forms.Button btnSort;
}

```

Student.cs

```

namespace StudentManagementSystem
{
    partial class StudentDetail
    {
        /// <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.StudentDataGridView = new System.Windows.Forms.DataGridView();
        this.btnAdd = new System.Windows.Forms.Button();
        this.btnImport = new System.Windows.Forms.Button();
        this.btnExport = new System.Windows.Forms.Button();
        this.btnSave = new System.Windows.Forms.Button();
        this.btnRetrive = new System.Windows.Forms.Button();
        this.label1 = new System.Windows.Forms.Label();

        ((System.ComponentModel.ISupportInitialize)(this.StudentDataGridView)).BeginInit();
        this.SuspendLayout();
        //
        // StudentDataGridView
        //
        this.StudentDataGridView.ColumnHeadersHeightSizeMode =
System.Windows.Forms.DataGridViewColumnHeadersHeightSizeMode.AutoSize;
        this.StudentDataGridView.Location = new System.Drawing.Point(40, 50);
        this.StudentDataGridView.Name = "StudentDataGridView";
        this.StudentDataGridView.RowHeadersWidth = 51;
        this.StudentDataGridView.RowTemplate.Height = 24;
        this.StudentDataGridView.Size = new System.Drawing.Size(1045, 329);
        this.StudentDataGridView.TabIndex = 0;
        //
        // btnAdd
        //
        this.btnAdd.Location = new System.Drawing.Point(219, 396);
        this.btnAdd.Name = "btnAdd";
        this.btnAdd.Size = new System.Drawing.Size(75, 32);
        this.btnAdd.TabIndex = 1;
        this.btnAdd.Text = "Add";
        this.btnAdd.UseVisualStyleBackColor = true;
        this.btnAdd.Click += new System.EventHandler(this.btnAdd_Click);
        //
        // btnImport
        //
        this.btnImport.Location = new System.Drawing.Point(313, 396);
        this.btnImport.Name = "btnImport";
        this.btnImport.Size = new System.Drawing.Size(130, 32);
        this.btnImport.TabIndex = 2;
        this.btnImport.Text = "Import From CSV";
        this.btnImport.UseVisualStyleBackColor = true;
        this.btnImport.Click += new System.EventHandler(this.btnImport_Click);
        //
        // btnExport
        //
        this.btnExport.Location = new System.Drawing.Point(465, 396);
        this.btnExport.Name = "btnExport";

```



```

this.btnExport.Size = new System.Drawing.Size(137, 32);
this.btnExport.TabIndex = 3;
this.btnExport.Text = "Export To CSV";
this.btnExport.UseVisualStyleBackColor = true;
this.btnExport.Click += new System.EventHandler(this.btnExport_Click);
//
// btnSave
//
this.btnSave.Location = new System.Drawing.Point(629, 396);
this.btnSave.Name = "btnSave";
this.btnSave.Size = new System.Drawing.Size(75, 32);
this.btnSave.TabIndex = 4;
this.btnSave.Text = "Save";
this.btnSave.UseVisualStyleBackColor = true;
this.btnSave.Click += new System.EventHandler(this.btnSave_Click);
//
// btnRetrive
//
this.btnRetrive.Location = new System.Drawing.Point(749, 396);
this.btnRetrive.Name = "btnRetrive";
this.btnRetrive.Size = new System.Drawing.Size(75, 32);
this.btnRetrive.TabIndex = 5;
this.btnRetrive.Text = "Retrive";
this.btnRetrive.UseVisualStyleBackColor = true;
this.btnRetrive.Click += new System.EventHandler(this.btnRetrive_Click_1);
//
// label1
//
this.label1.AutoSize = true;
this.label1.Font = new System.Drawing.Font("Microsoft Sans Serif", 13.8F,
System.Drawing.FontStyle.Bold, System.Drawing.GraphicsUnit.Point, ((byte)(0)));
this.label1.Location = new System.Drawing.Point(471, -1);
this.label1.Name = "label1";
this.label1.Size = new System.Drawing.Size(190, 29);
this.label1.TabIndex = 7;
this.label1.Text = "Student Details";
//
// StudentDetail
//
this.AutoScaleDimensions = new System.Drawing.SizeF(8F, 16F);
this.AutoScaleMode = System.Windows.Forms.AutoScaleMode.Font;
this.BackColor = System.Drawing.SystemColors.Highlight;
this.ClientSize = new System.Drawing.Size(1204, 450);
this.Controls.Add(this.label1);
this.Controls.Add(this.btnRetrive);
this.Controls.Add(this.btnSave);
this.Controls.Add(this.btnExport);
this.Controls.Add(this.btnImport);
this.Controls.Add(this.btnAdd);
this.Controls.Add(this.StudentDataGridView);
this.ForeColor = System.Drawing.SystemColors.ActiveCaptionText;
this.Name = "StudentDetail";
this.StartPosition = System.Windows.Forms.FormStartPosition.CenterScreen;
this.Text = "StudentDetail";
this.Load += new System.EventHandler(this.StudentDetail_Load);

((System.ComponentModel.ISupportInitialize)(this.StudentDataGridView)).EndInit();

```

```
        this.ResumeLayout(false);  
        this.PerformLayout();  
    }  
  
#endregion  
  
private System.Windows.Forms.DataGridView StudentDataGridView;  
private System.Windows.Forms.Button btnAdd;  
private System.Windows.Forms.Button btnImport;  
private System.Windows.Forms.Button btnExport;  
private System.Windows.Forms.Button btnSave;  
private System.Windows.Forms.Button btnRetrive;  
private System.Windows.Forms.Label label1;  
    }  
}
```