Marking Scheme

Informatics College Pokhara

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Application Development
CS6004NI
Course Work 1

Submitted By: **Sudir Shahi**
London Met ID: Enter ID Here

Submitted To: Ishwor Sapkota
Module Leader

Component Grade and Comments	
A. Implementation of Application	
User Interface and proper controls used for designing	User Interface is complete but not separated and have proper use of controls
Manual data entry or import from csv	appropriate use of data types but missing some properties required or missing CRUD operation
Data Validation	missing most of the validation
Enrollment Report & weekly report in tabular format	very poorly executed reports and data not shown accurately
Course wise enrollment report & Chart display	Very poorly designed and only contains one report format with in appropriate data
Algorithm used for sorting & proper sorting of data	Default sorting provided by .net is used
B. Documentation	
User Manual for running the application	User Manual is below average. Is textual only.

Application architecture & description of the classes ad methods sued	average work with very limited explanation of the classes and methods used
Flow chart, algoriathms and data sctructures used	average work with very limited explanation and missing diagramatic representation.
Reflective essay	Very poorly written

C. Programming Style

Clarity of code,Popper Naming convention & comments	very poorly written code and no comments at all
System Usability	very poorly developed application

Overall Grade:	**C+**	**C+**

Overall Comment:

Code should be self explainable with less comments. Need some proper naming of the componen and require to add comments on required area.

Good OK with the code. All feature implemented.

Informatics College Pokhara

Application Development

CS6004NA

Coursework 1

Submitted By:

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London Met ID: 17032014
Group: L3C1
Date: 10-Jan-2020

Submitted To:

Module Leader
Mr Ishwor Sapkota
Module Name
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

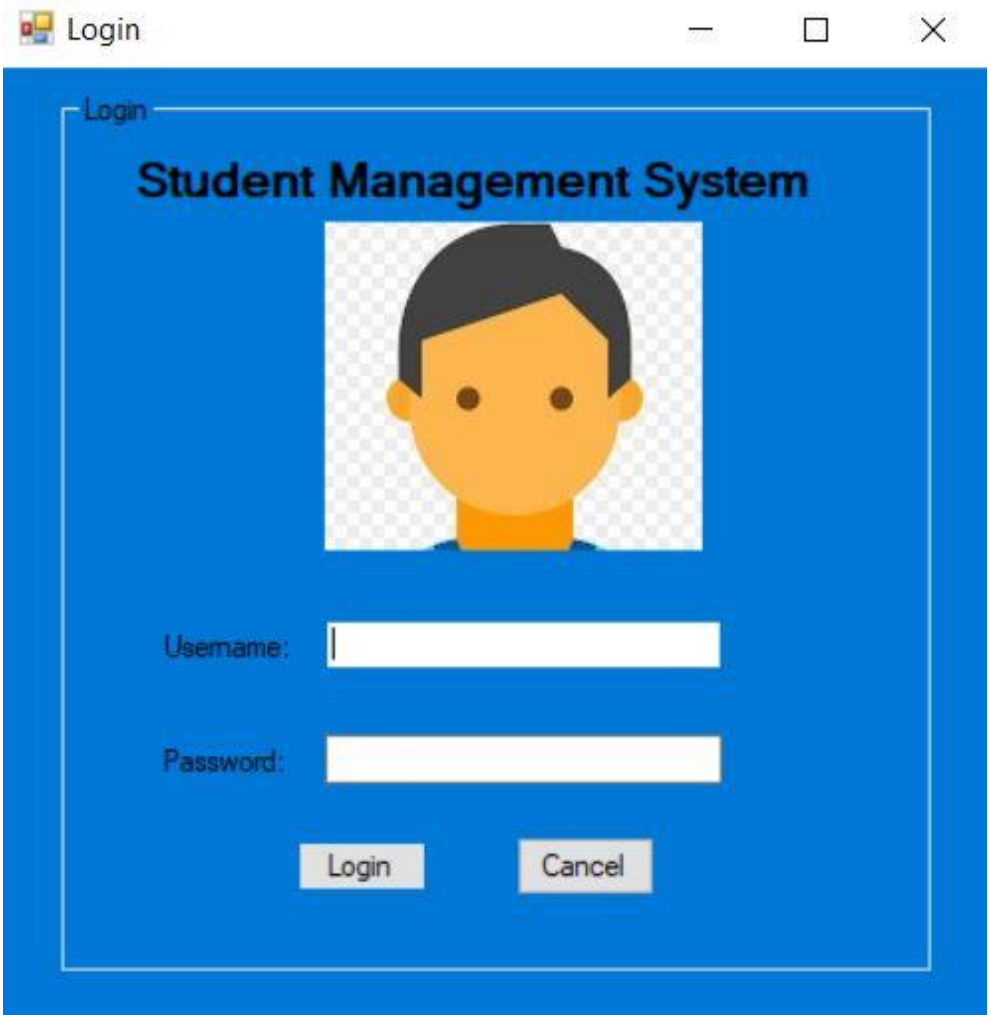


Figure 1 Login

2. Running Application show wrong login user id

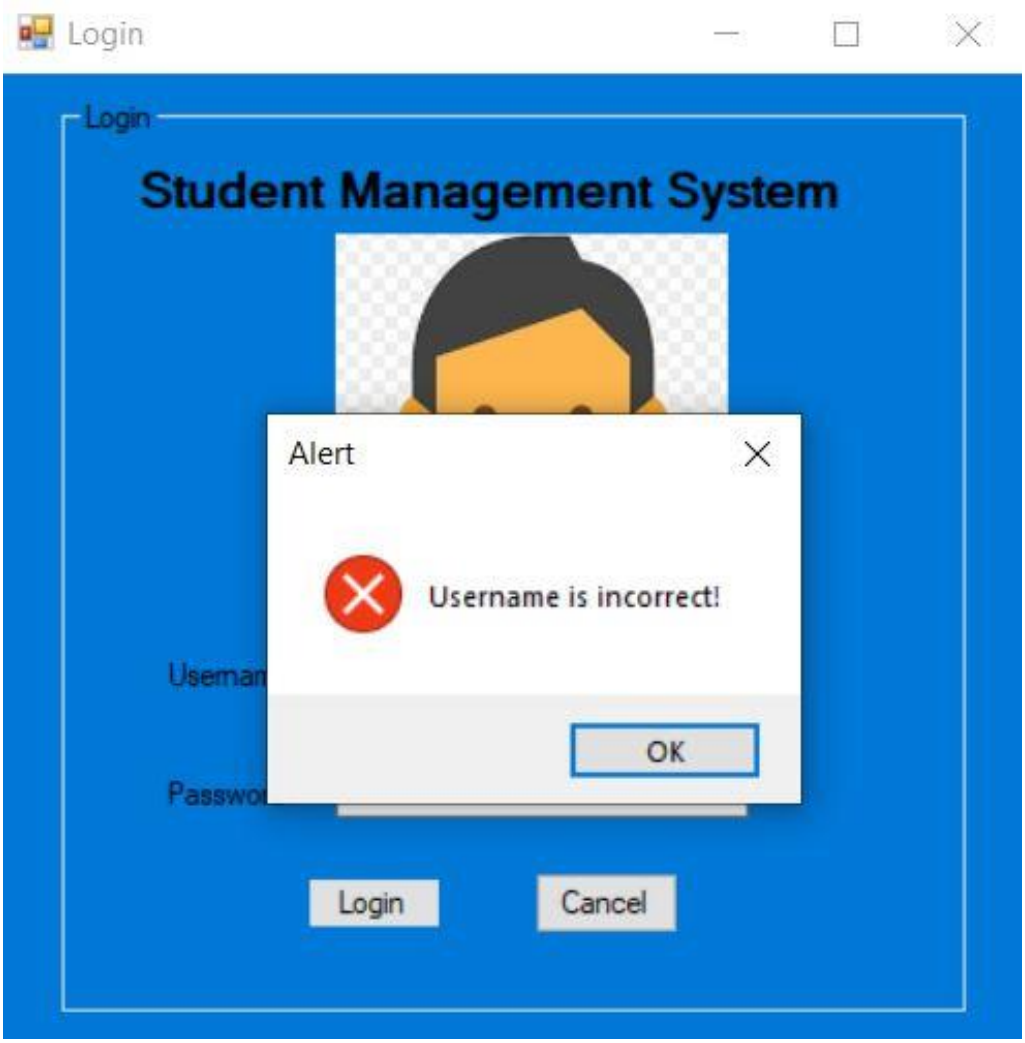


Figure 2 Username

3. Application shows successful login

Figure 3 login succesful

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

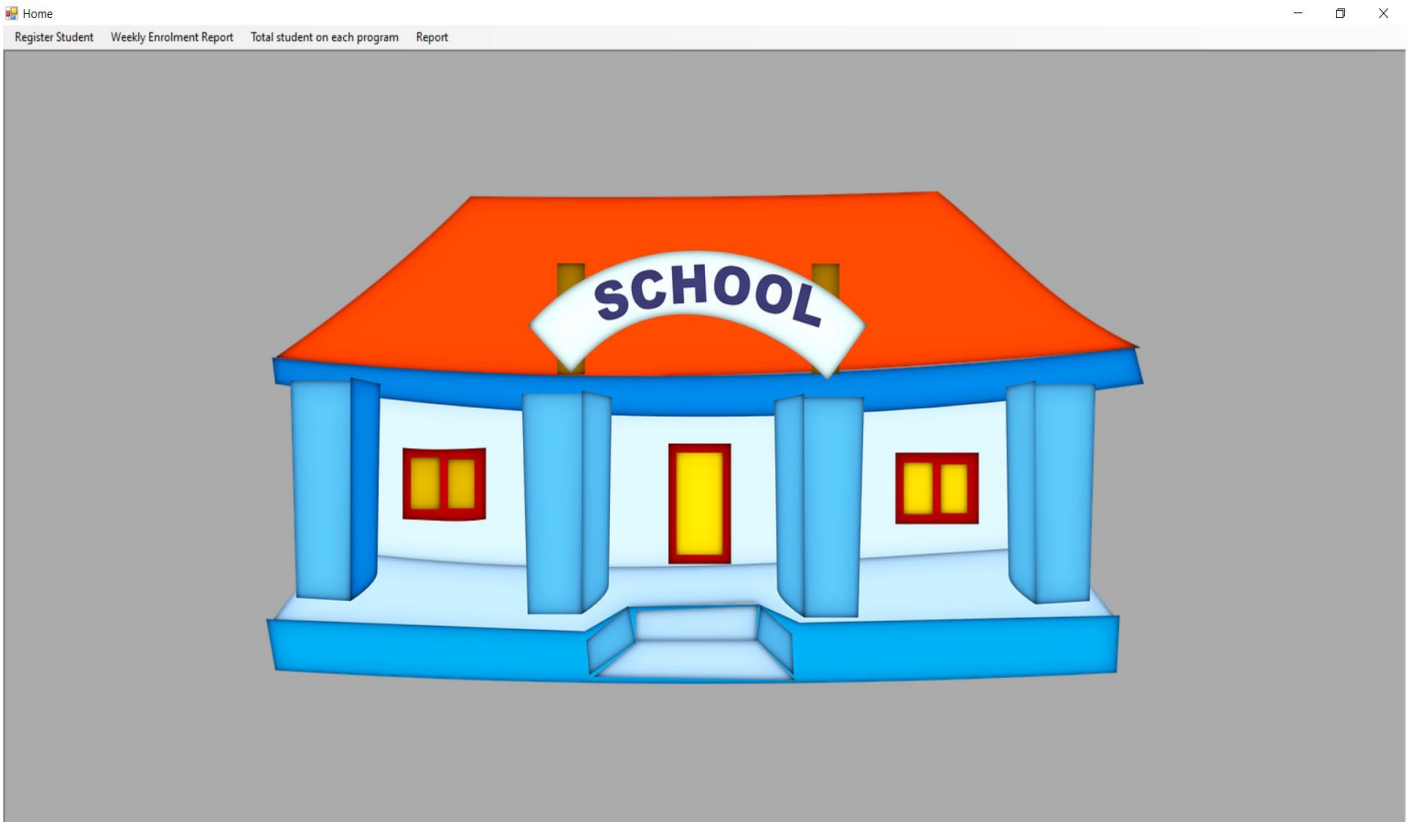


Figure 4 Home page

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

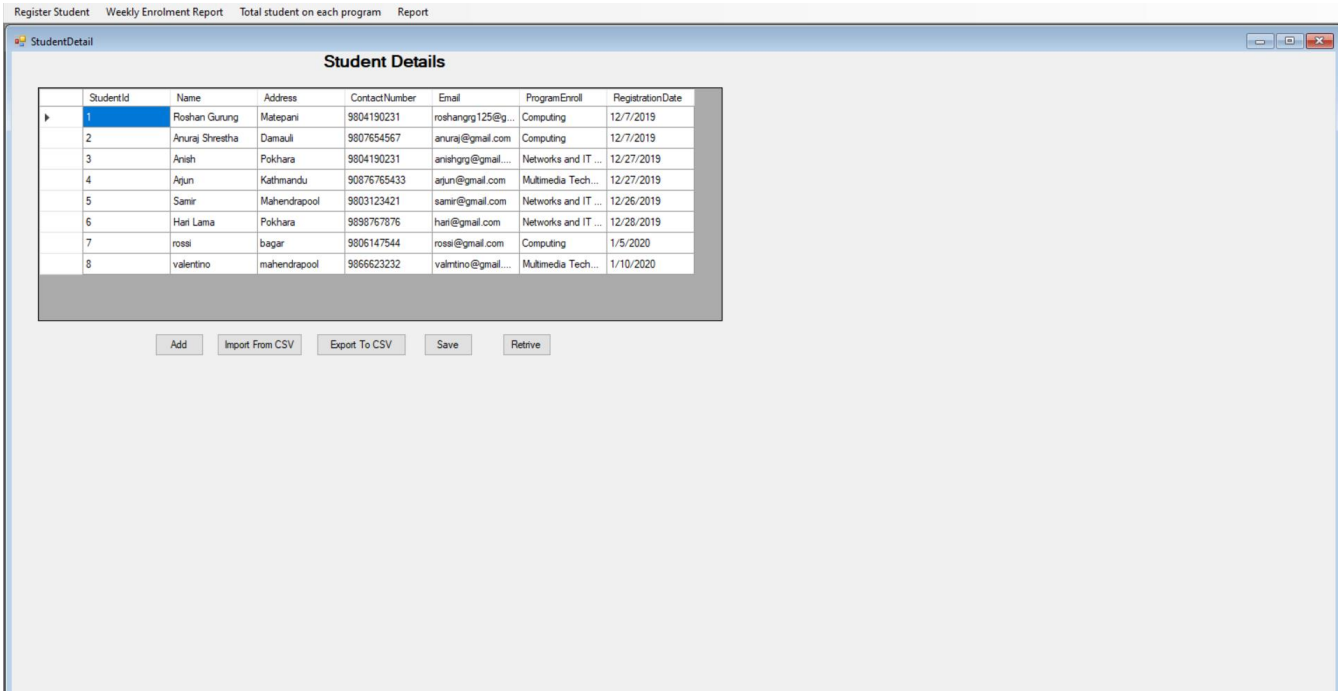


Figure 5 Student details

5. Click Add to open Register Visitor Form.

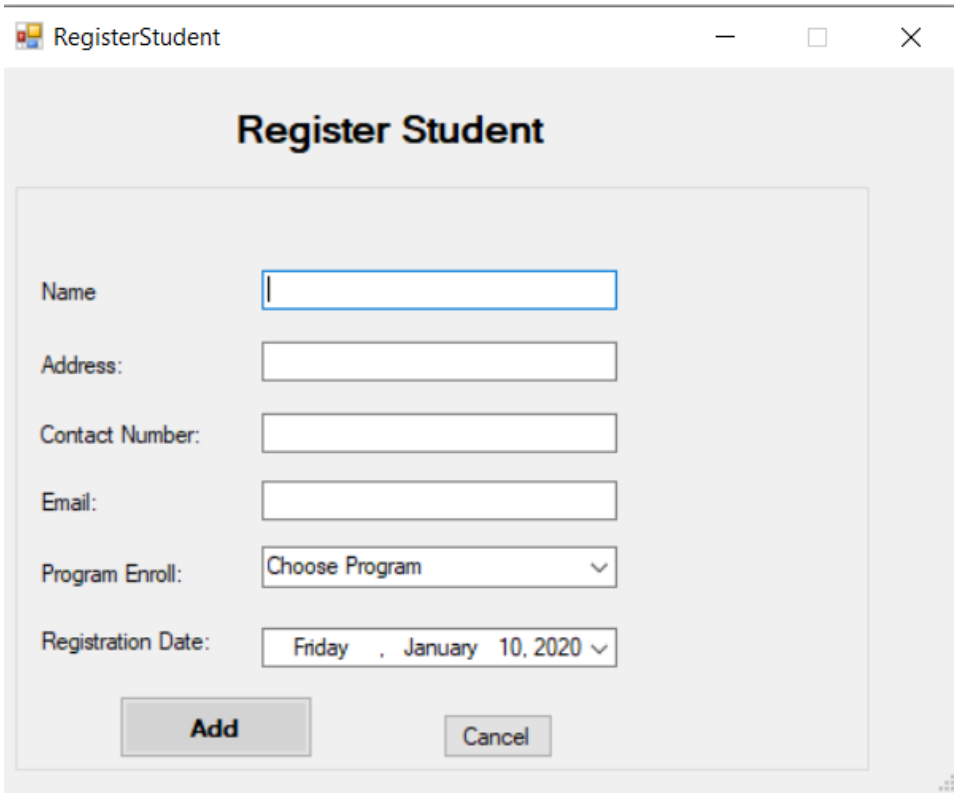


Figure 6 Register student

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

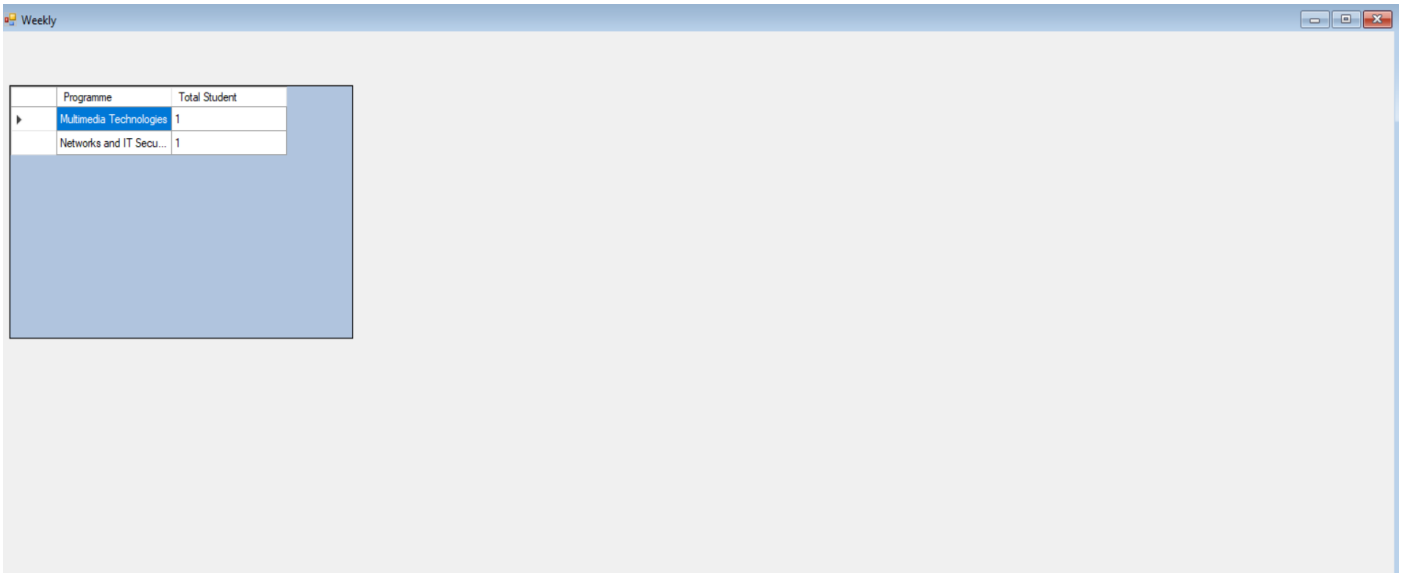


Figure 7 Weekly report

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

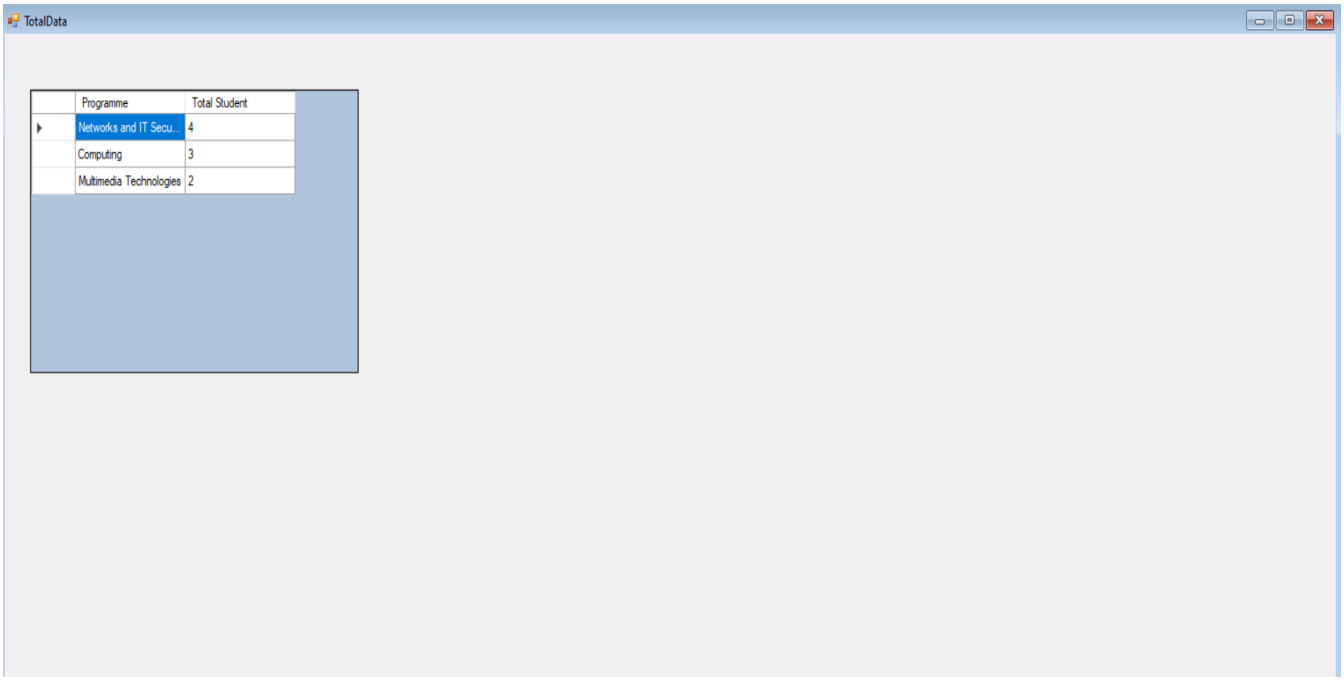


Figure 8 total number chart

8. Click on report to view sorting names

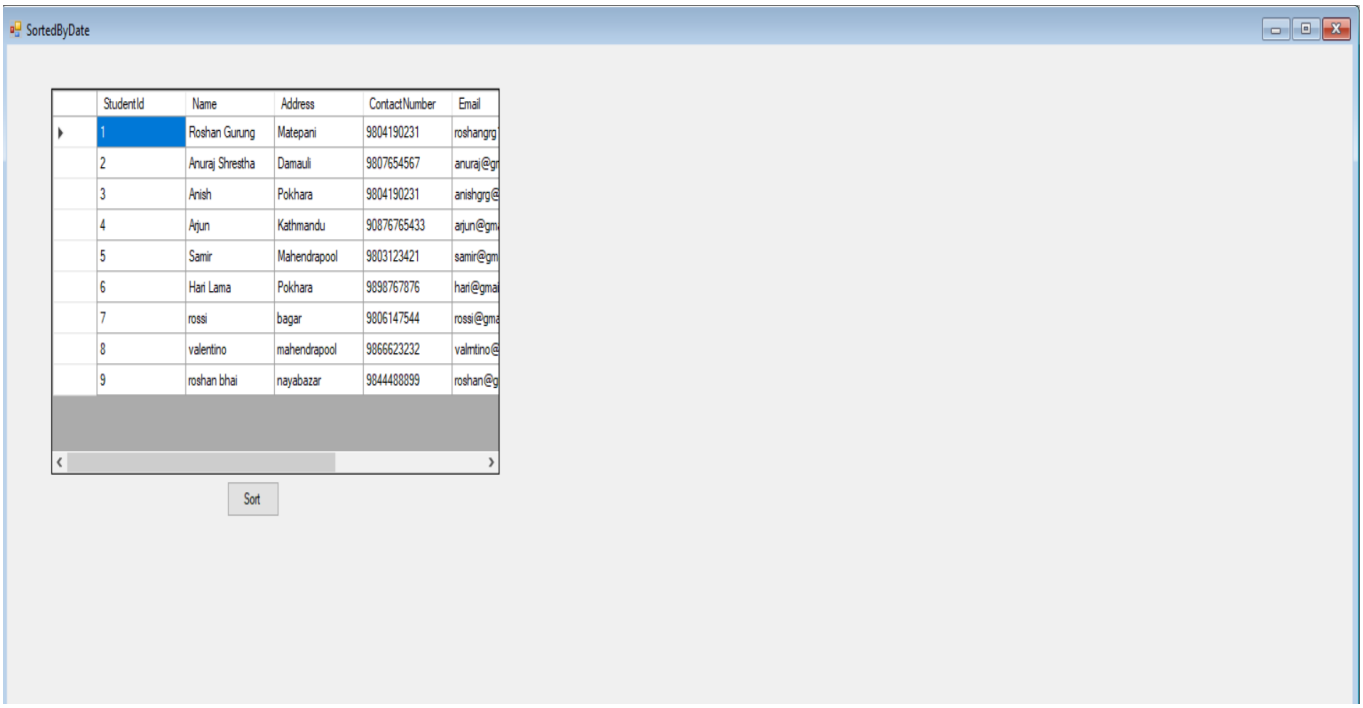


Figure 9 Sorting

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.

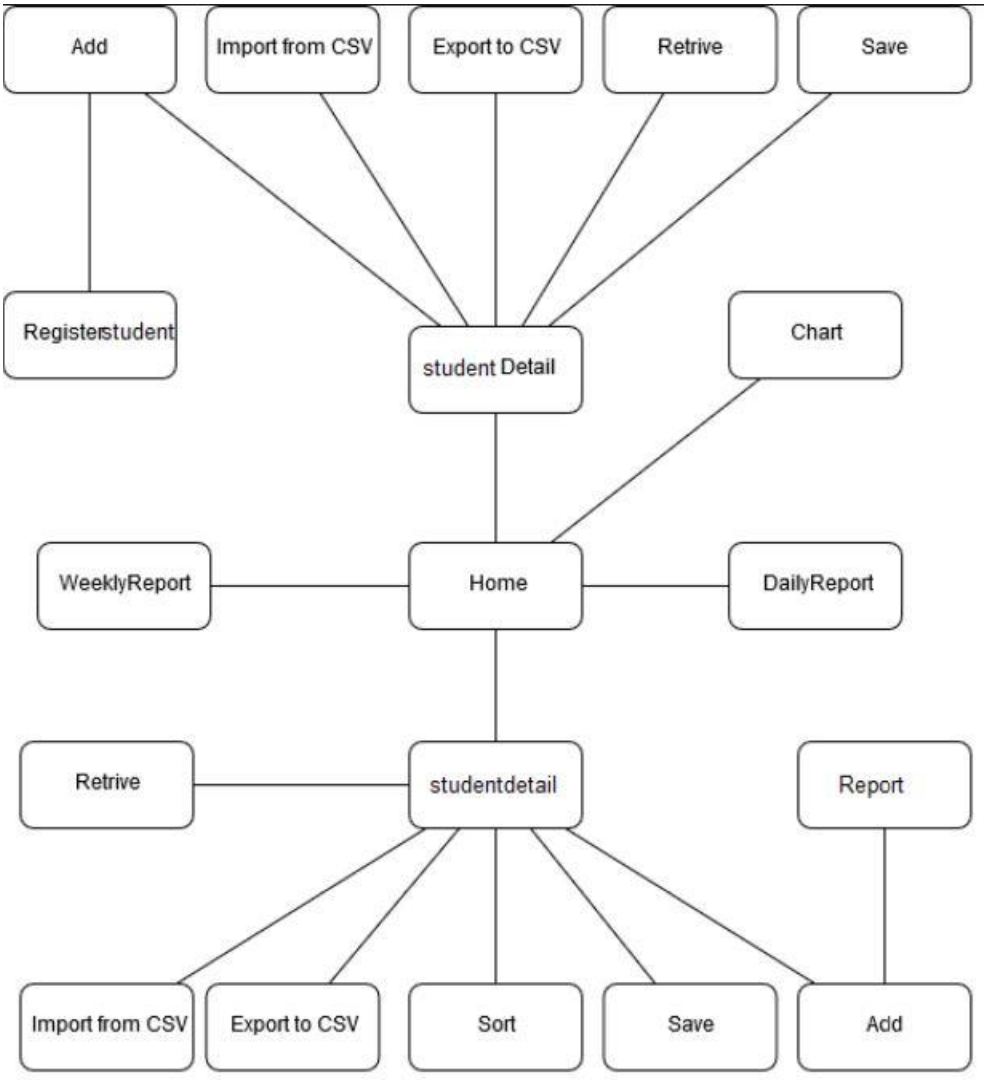


Figure 10 Architecture

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

(1 5 4 2 8) –> (1 4 5 2 8), Swap since 5 > 4

(1 4 5 2 8) –> (1 4 2 5 8), Swap since 5 > 2

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

Second Pass:

(1 4 2 5 8) –> (1 4 2 5 8)

(1 4 2 5 8) –> (1 2 4 5 8), Swap since 4 > 2

(1 2 4 5 8) –> (1 2 4 5 8)

(1 2 4 5 8) –> (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) –> (1 2 4 5 8)

(1 2 4 5 8) –> (1 2 4 5 8)

(1 2 4 5 8) –> (1 2 4 5 8)

(1 2 4 5 8) –> (1 2 4 5 8)

8. Class Diagram

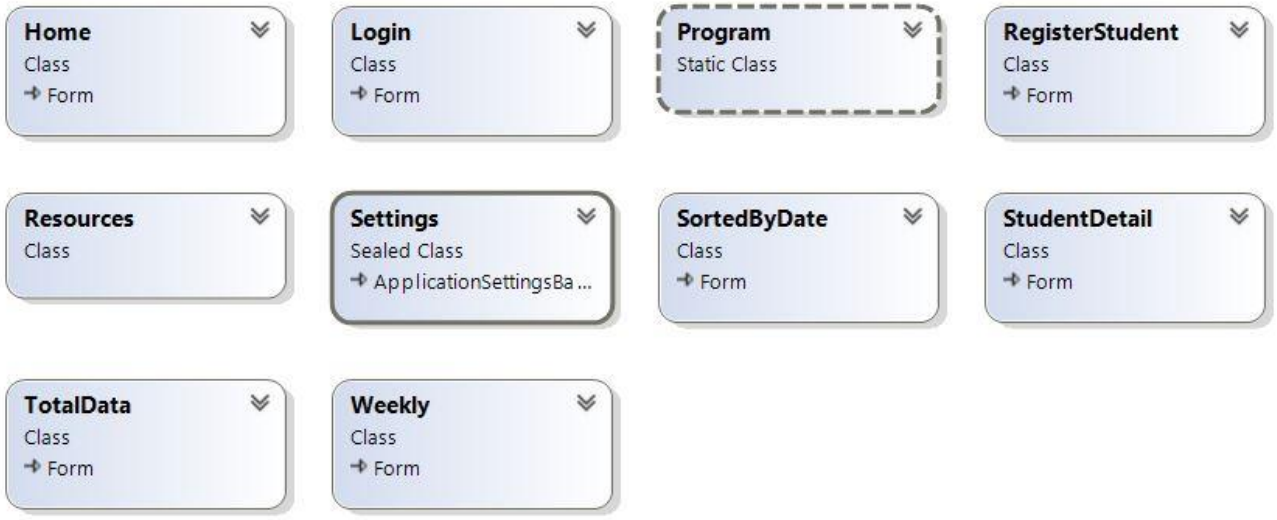


Figure 11 Class diagram

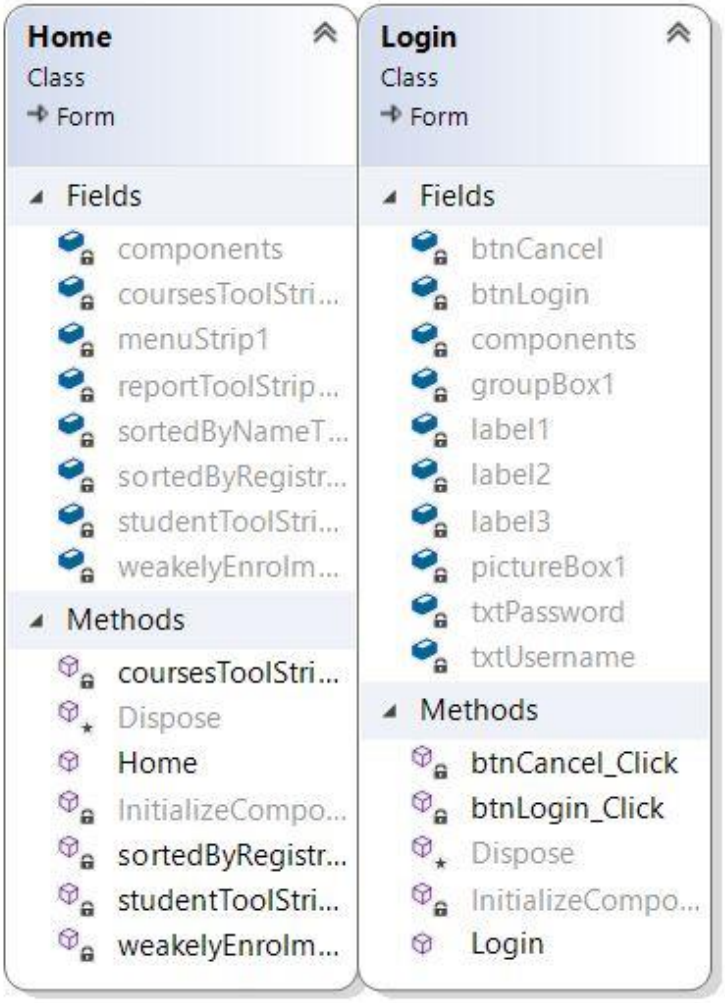


Figure 12 Home login CD

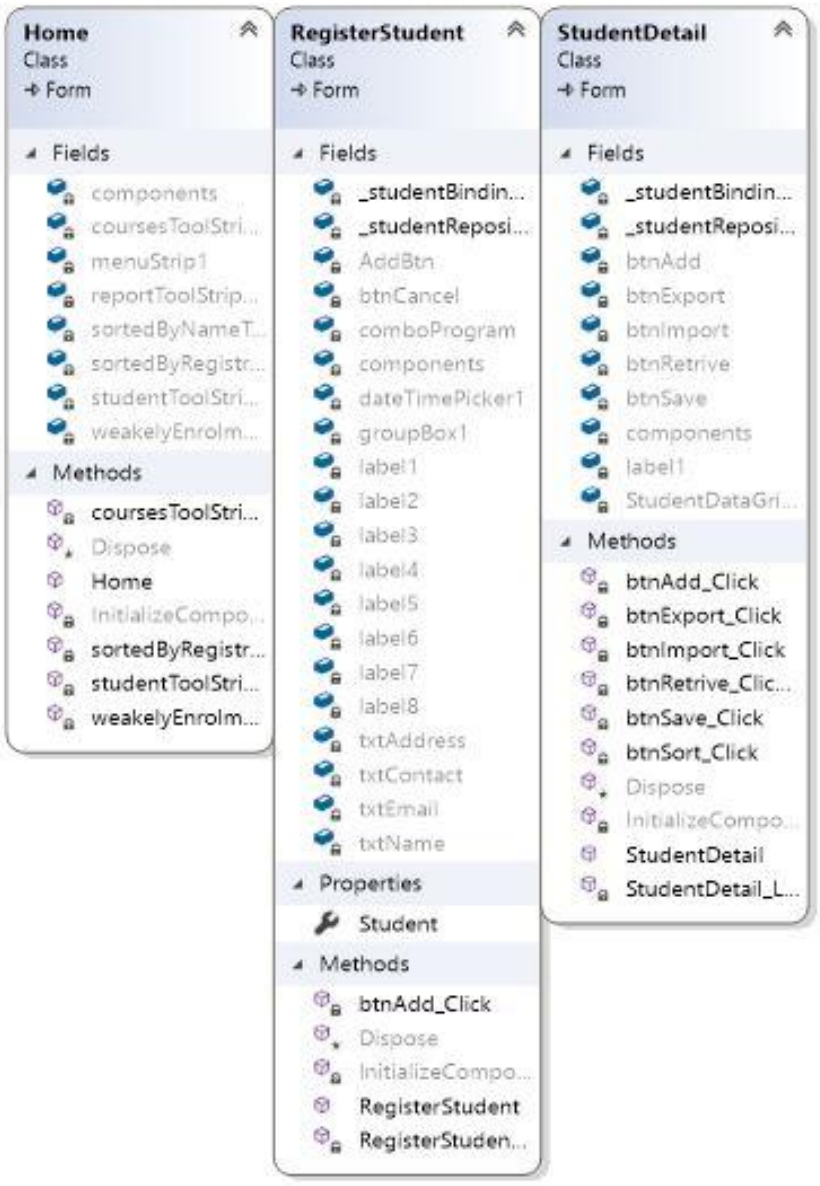


Figure 13 Student Detail student Repository

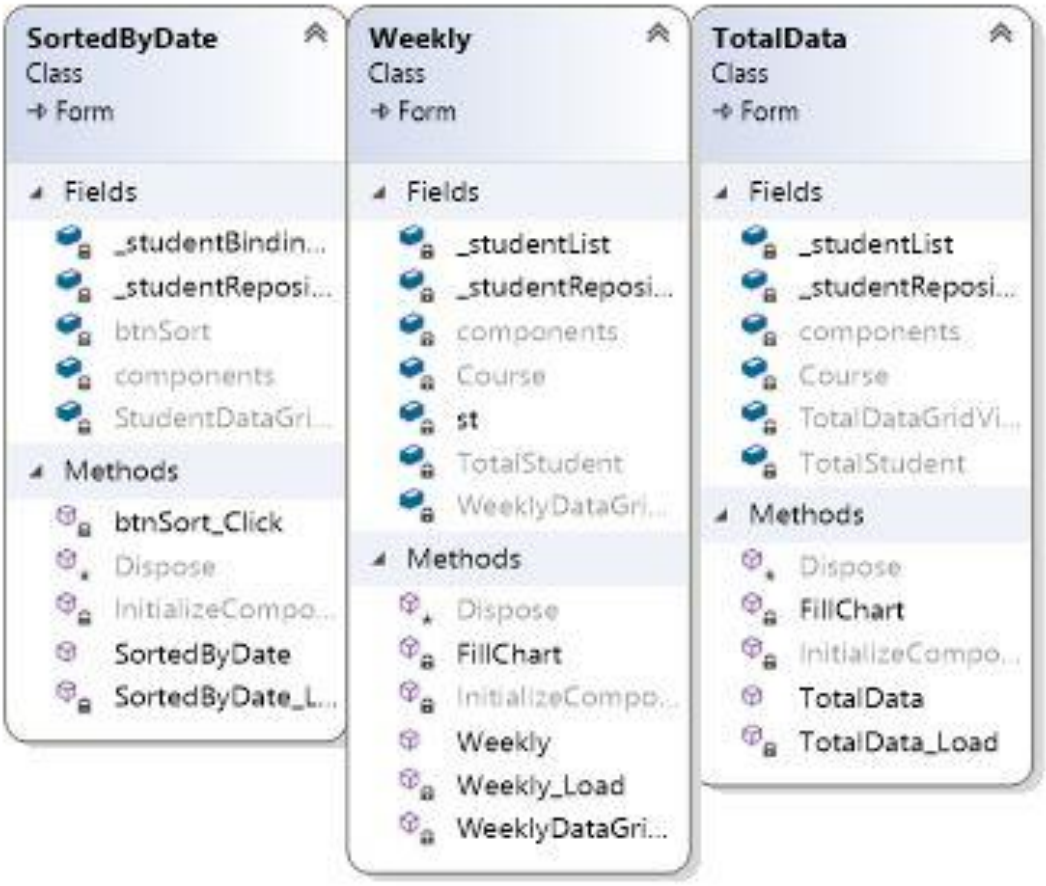


Figure 14 Sorted by date and Name

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

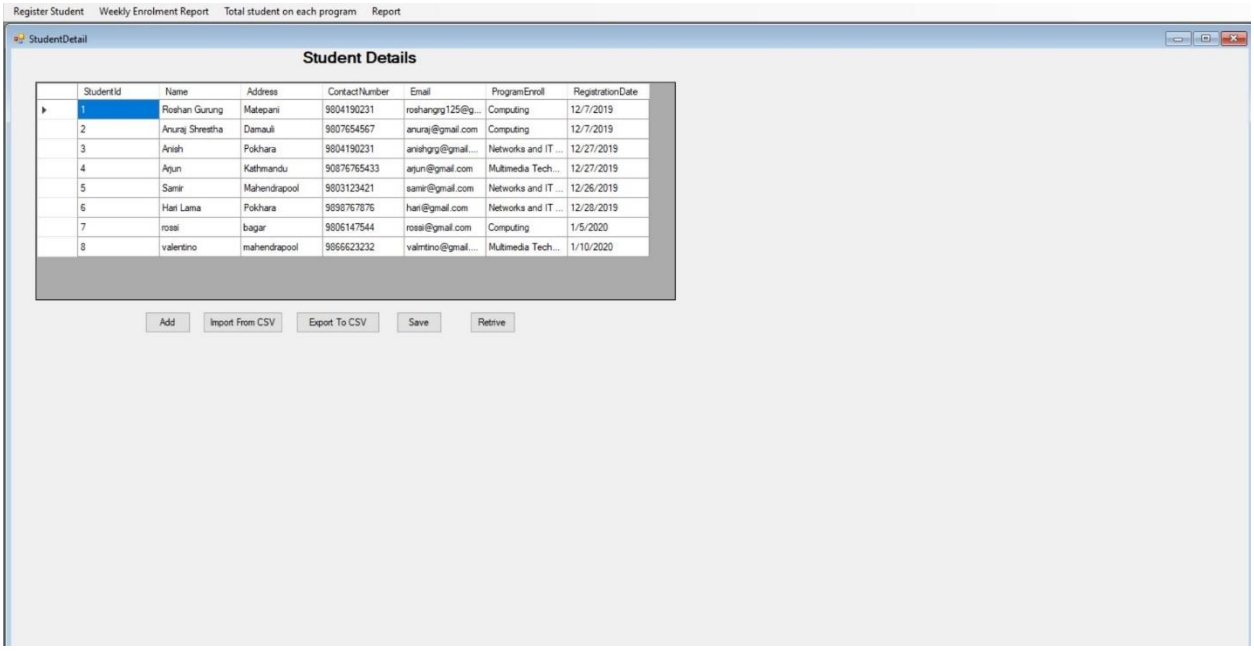


Figure 15 Test case 1

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

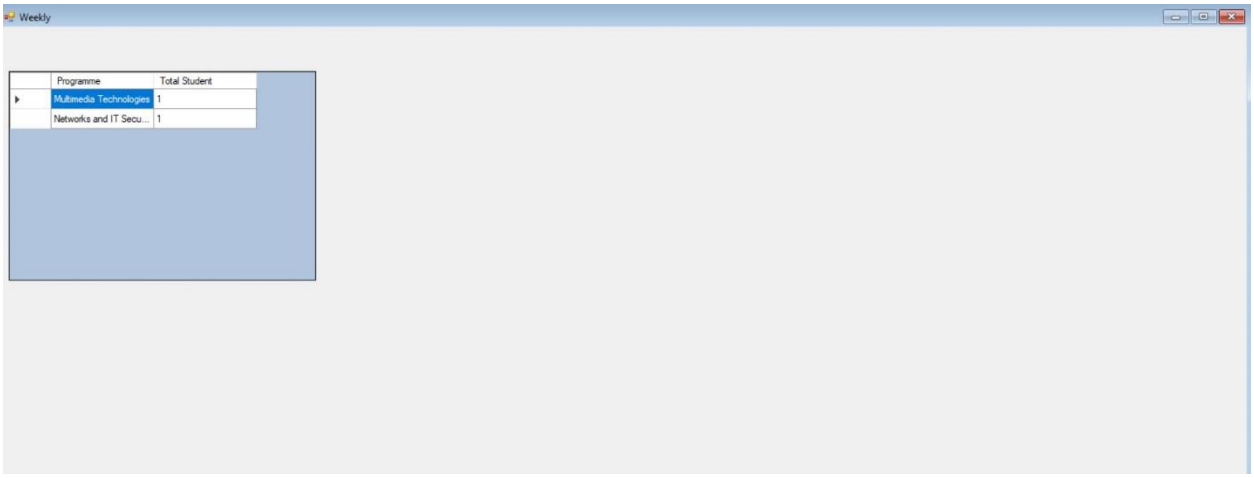
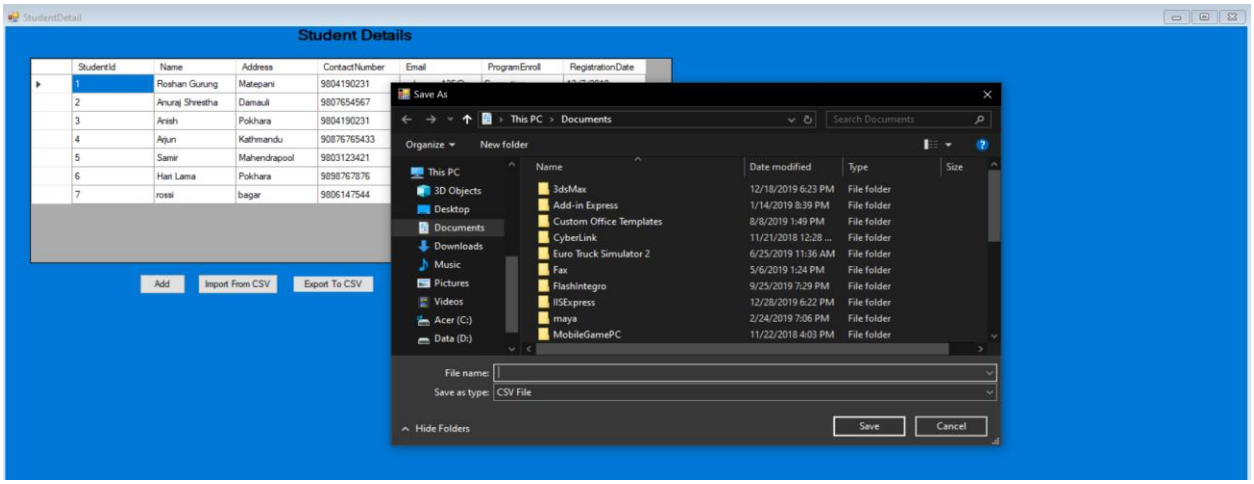


Figure 16 Test case 2

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



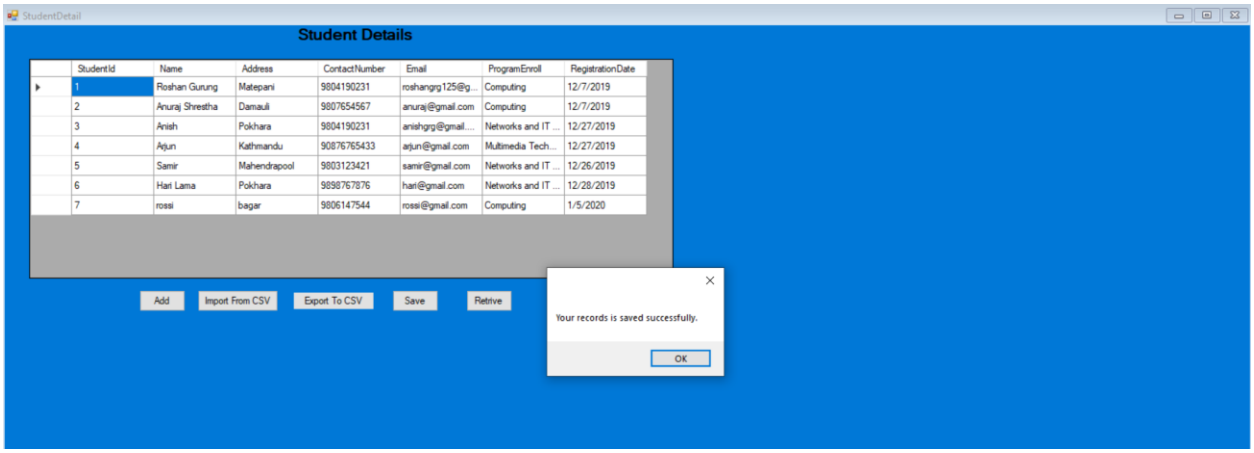
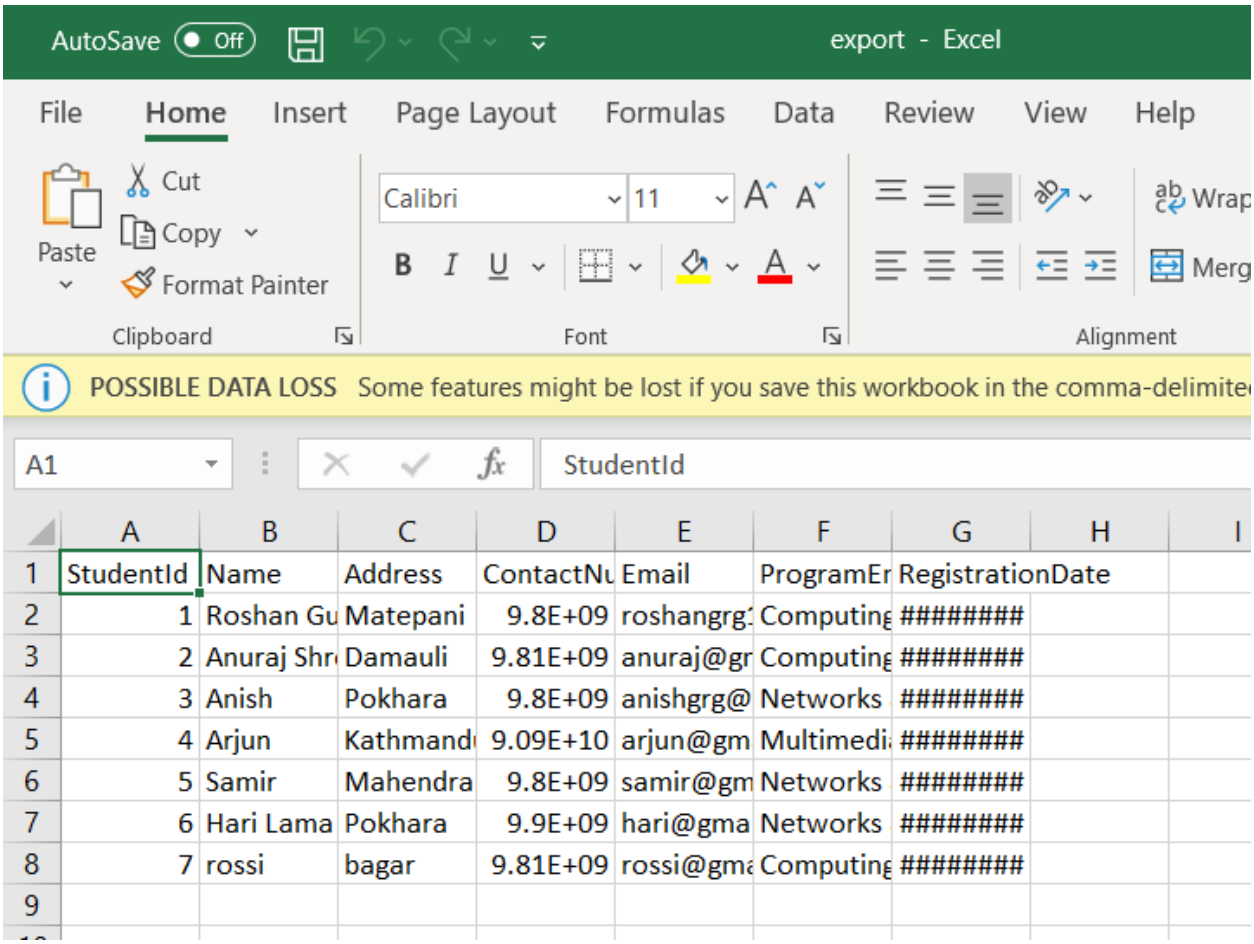


Figure 17 Test Case 3



	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	roshangrg1	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

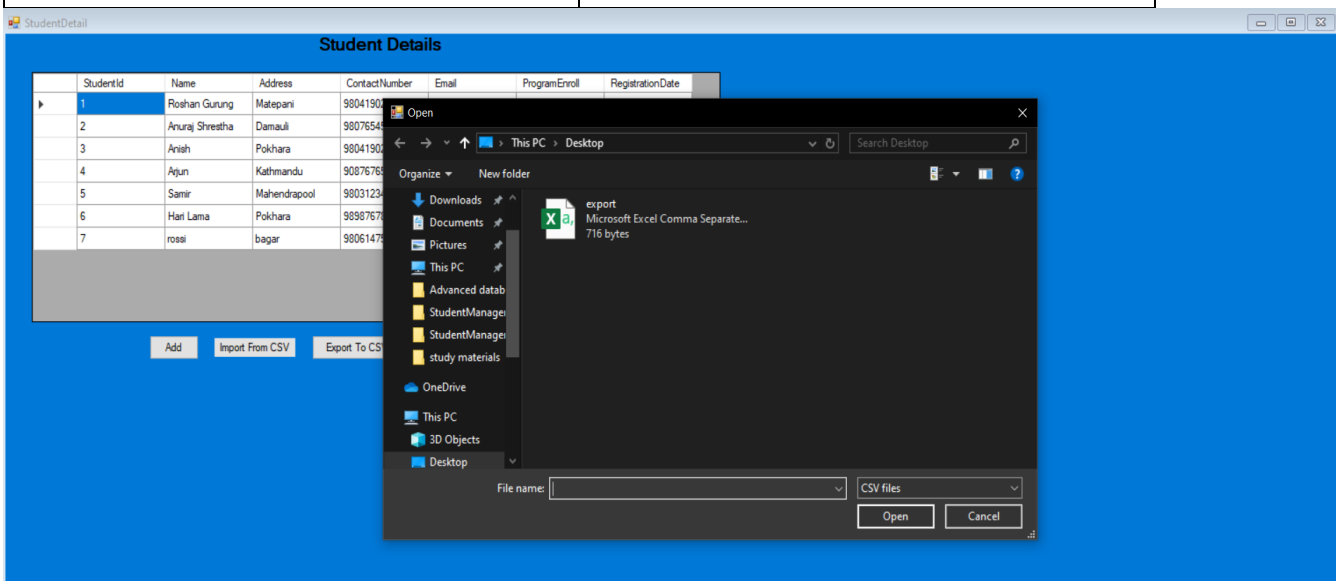


Figure 19 Test case 4

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

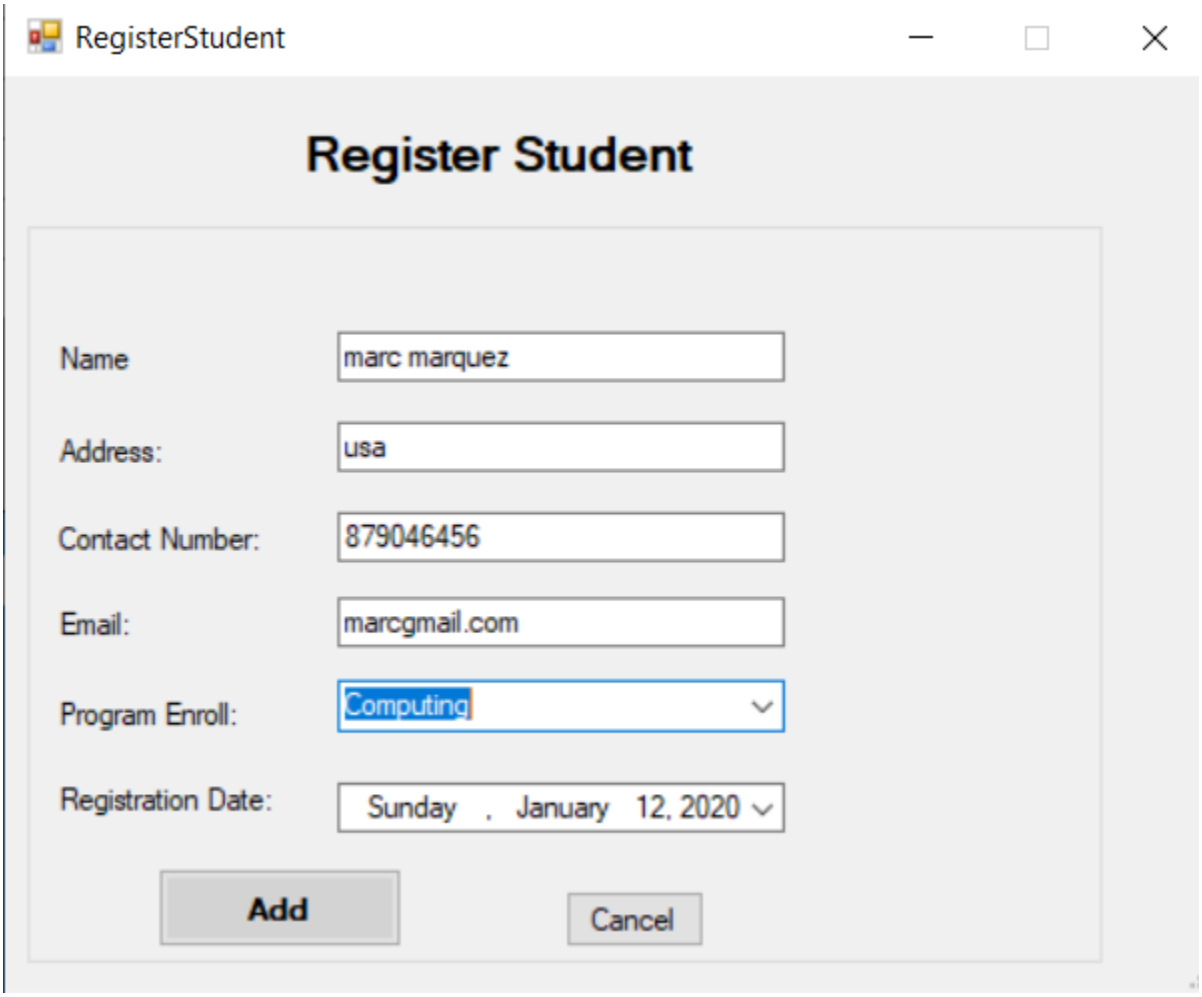


Figure 20 Test case 5

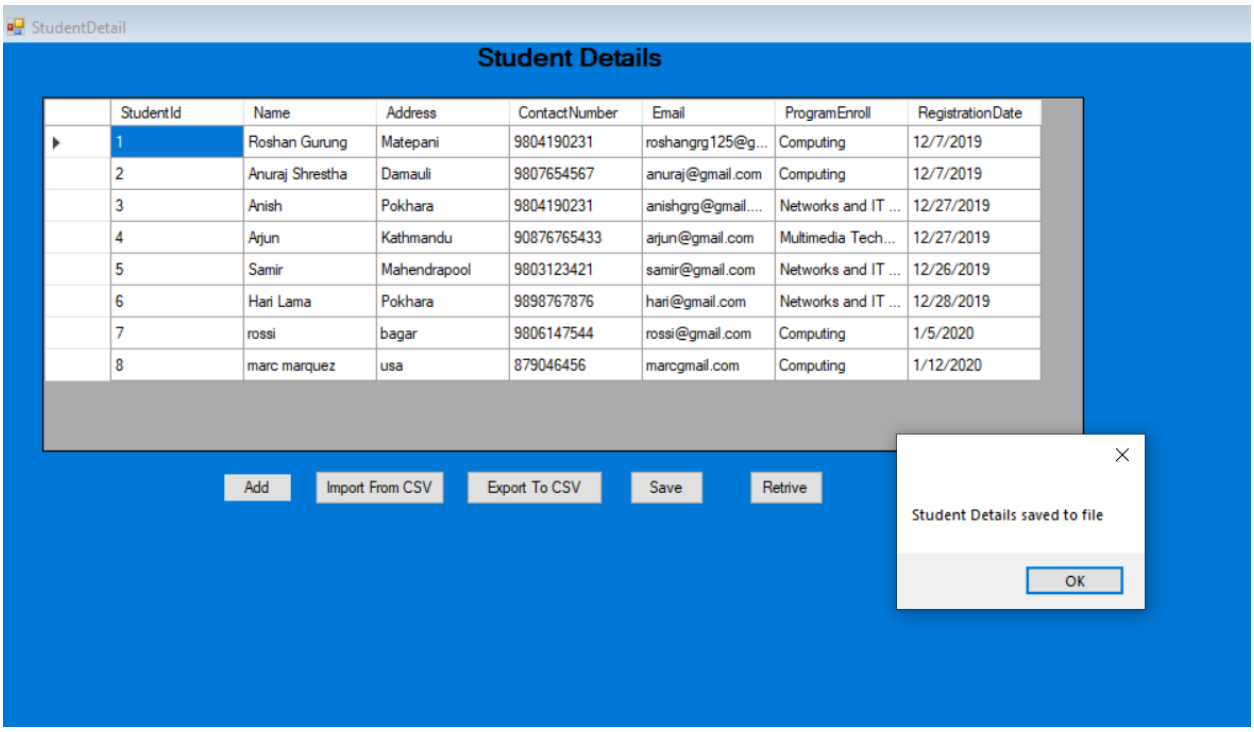


Figure 21 Student details saved

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

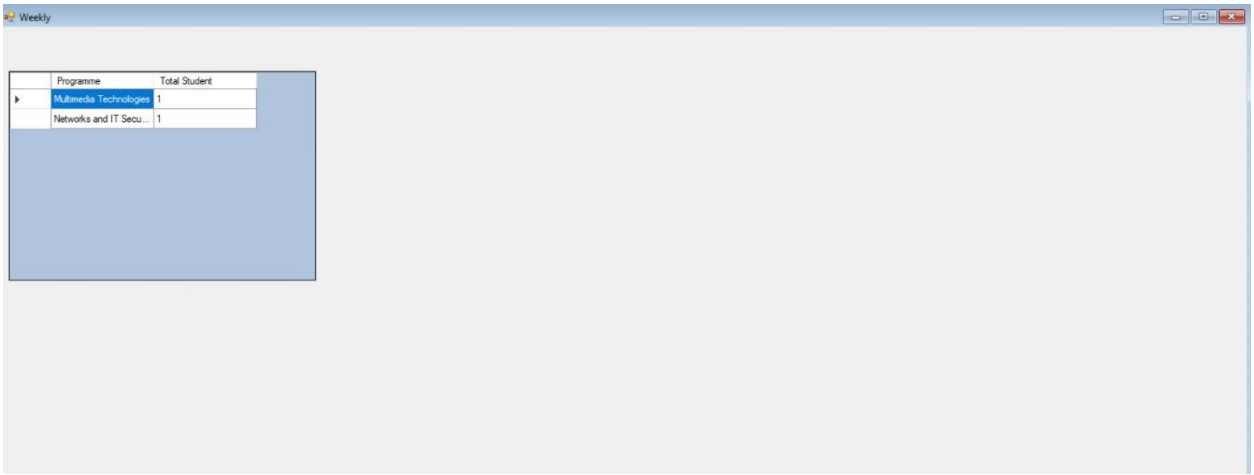


Figure 22 Test Case 6

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

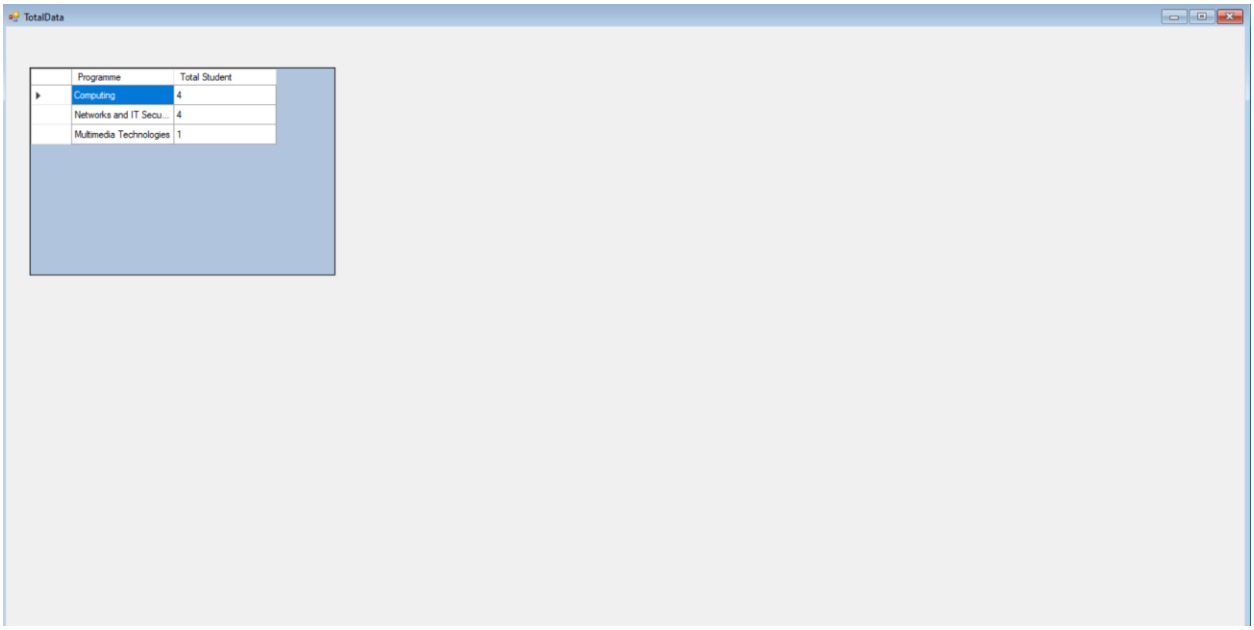


Figure 23 Test Case 7

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

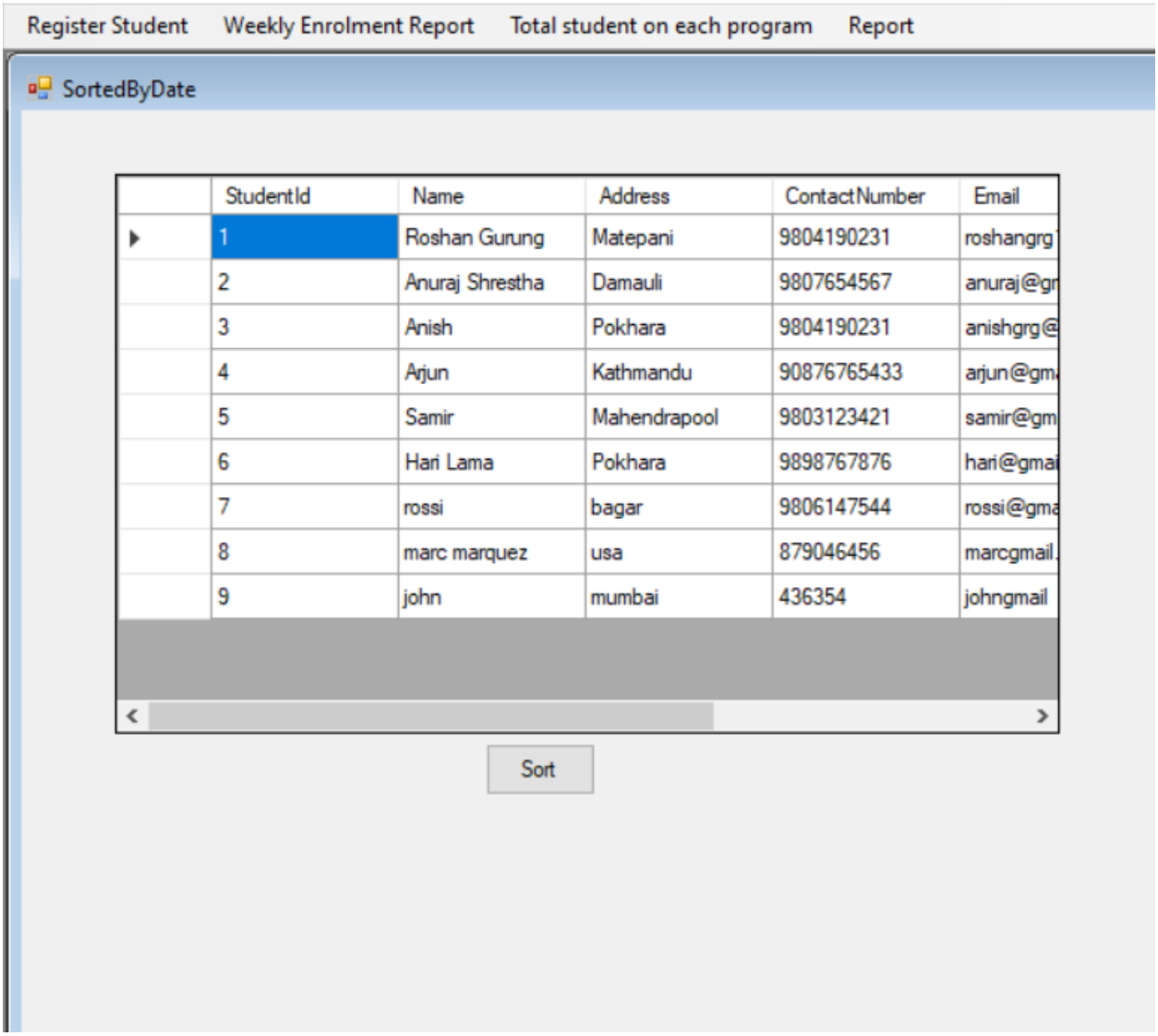


Figure 24 Test case 8

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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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.ToolStripMenuItem();
            this.weakelyEnrolmentReportToolStripMenuItem = new
System.Windows.Forms.ToolStripMenuItem();
            this.coursesToolStripMenuItem = new System.Windows.Forms.ToolStripMenuItem();
            this.reportToolStripMenuItem = new System.Windows.Forms.ToolStripMenuItem();
            this.sortedByRegistrationDateToolStripMenuItem = new
System.Windows.Forms.ToolStripMenuItem();
            this.sortedByNameToolStripMenuItem = new
System.Windows.Forms.ToolStripMenuItem();
            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.weakelyEnrolmentReportToolStripMenuItem,
            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);
            //
            // weakelyEnrolmentReportToolStripMenuItem
            //
            this.weakelyEnrolmentReportToolStripMenuItem.Name =
"weakelyEnrolmentReportToolStripMenuItem";
            this.weakelyEnrolmentReportToolStripMenuItem.Size = new
System.Drawing.Size(191, 24);
            this.weakelyEnrolmentReportToolStripMenuItem.Text = "Weekly Enrolment
Report";
            this.weakelyEnrolmentReportToolStripMenuItem.Click += new
System.EventHandler(this.weakelyEnrolmentReportToolStripMenuItem_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.ToolStripMenuItem 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.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("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.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.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;
    }
```

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
            //
```

```
            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.AutoScaleDimensions = 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;
    }
}
```