Marking Scheme

Informatics College Pokhara

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Application Development
CS6004NI
Course Work 1

Submitted By: **Aseem Adhikari**
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	Sorting is implemented for not function properly
B. Documentation	
User Manual for running the application	User Manual is average. Includes description for all interfaces

Marking Scheme

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	missing some explanation and diagram for flow chart and algorithms
Reflective essay	Average work with un clear learnings, experience or findings.
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.

In overall the code is working and all the functionality seems working and system can be used. All feature completed with few minor bugs.

Informatics College Pokhara

Application Development

CS6004NP

Coursework 1

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Date: 10th-Jan-2019

Submitted To:
Mr. Ishwor Sapkota
Application Development

Abstract

This is an individual course work for the module “Application Development” for Student Information System which is developed using Visual Studio Platform using C# language. The coursework is released in the week 8 and it is supposed to be submitted in the week 12.

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1. Introduction

The task given to us was to design and implement Student Information System in C# - desktop application. System designation and implementation is done by using Visual Studio. In this application user are allowed to input student details. After entering all the details of student, system will be able to generate a weekly enrolment report. This application is developed to keep track of student's detail, program enrol and registration date. Also, user are able to view the result sorted by date and their name. Furthermore, there is a features to view daily and weekly table and chart. Other available features are well explained in other sections of the report.

1.1 Current Scenario

Many of the student details in school and colleges are recorded in a file which is Paper-Based and are not related to any application system which makes their work even harder. But some of the top schools and colleges are making their way to the digital system where they can put student details and can track their result but are not satisfied with the things they can do under an application.

1.2 Proposed System

The proposed system is an application system which can satisfy the customer needs. The application helps to enter student details and can track their result.

2. User Manual

The below screenshot shows the work of an application where user can add student details sort them by their name and date and also can track students.

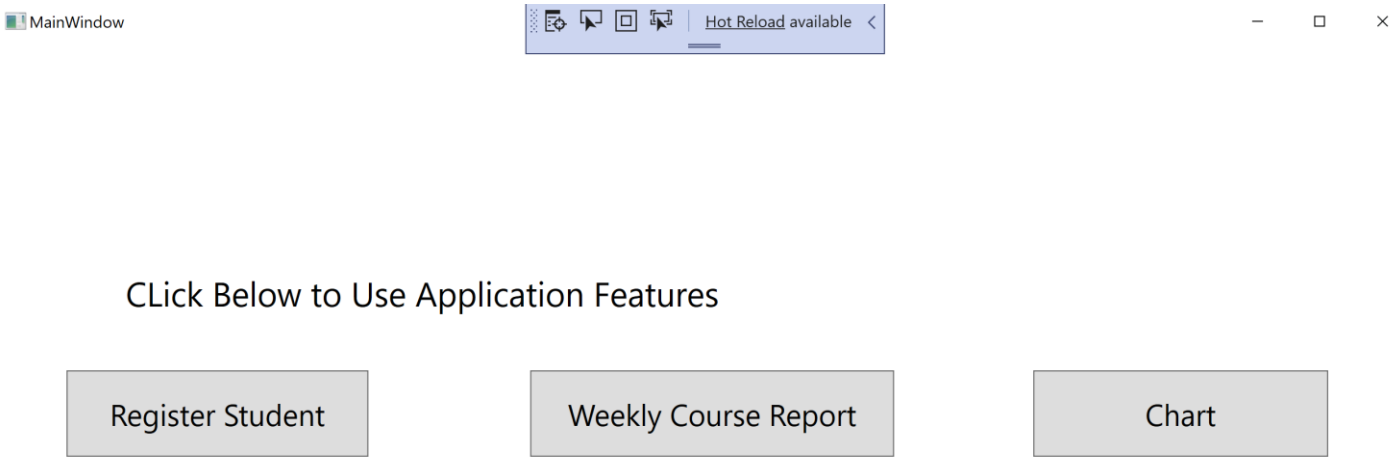


Figure 1: Main Page

As the user opens the application user will have access to three features as shown in the figure.

First feature lets the user to add data to view and sort the data

Second Feature lets the user to view weekly course report

Third Feature lets the user to view the chart.

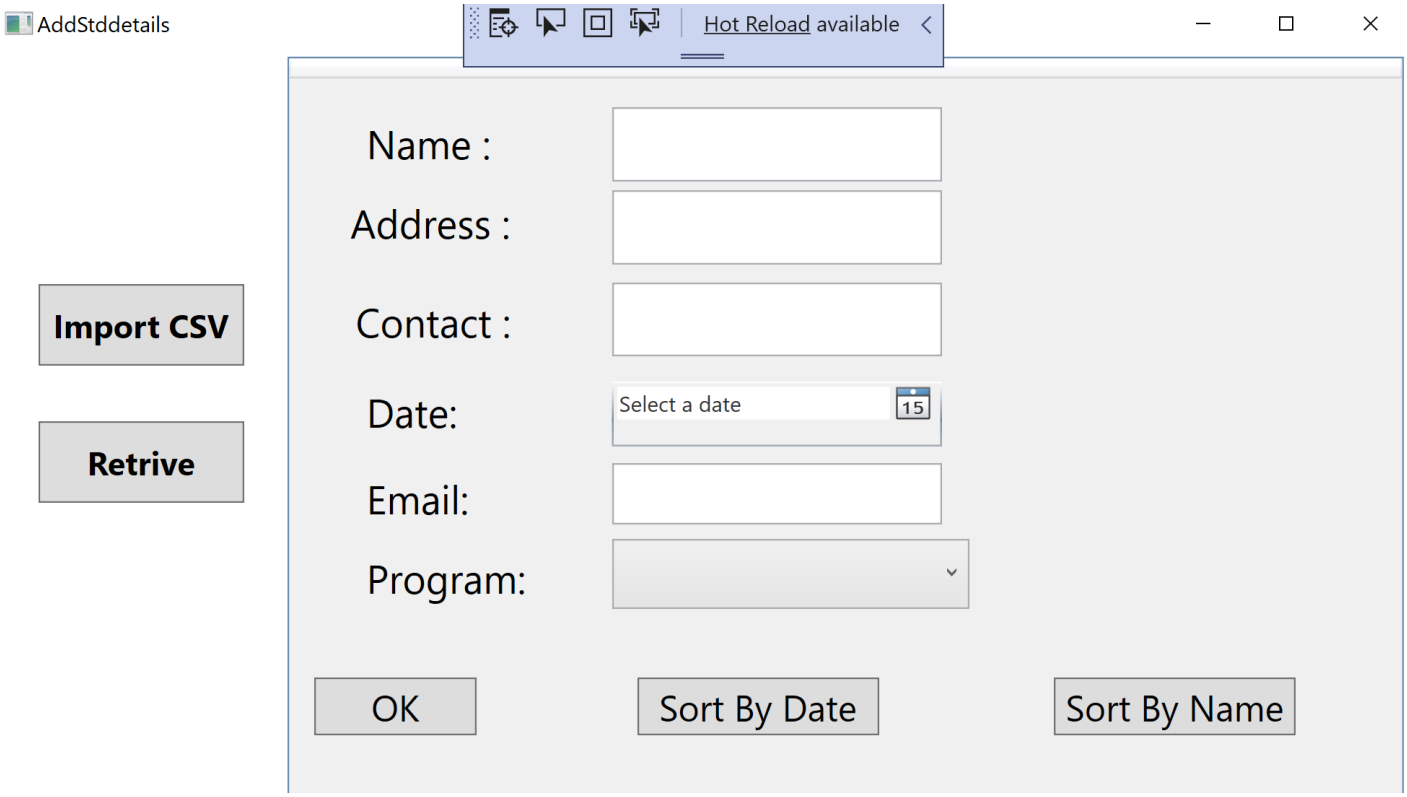


Figure 2: Add Student Details

This is the screen where user adds student details and can view the student by clicking retrieve. User can view student details by their date and Name. Also User can import details from CSV.

```
<?xml version="1.0" standalone="true"?>
- <NewDataSet>
  - <Student>
      <ID>1</ID>
      <Name>Prajal</Name>
      <Address>Amarsingh</Address>
      <ContactNo>98456123789</ContactNo>
      <EmailAddress>adhikari@gmail.com</EmailAddress>
      <CourseEnroll>Multimedia Technology</CourseEnroll>
      <RegistrationDate>2020-01-09T00:00:00+05:45</RegistrationDate>
    </Student>
</NewDataSet>
```

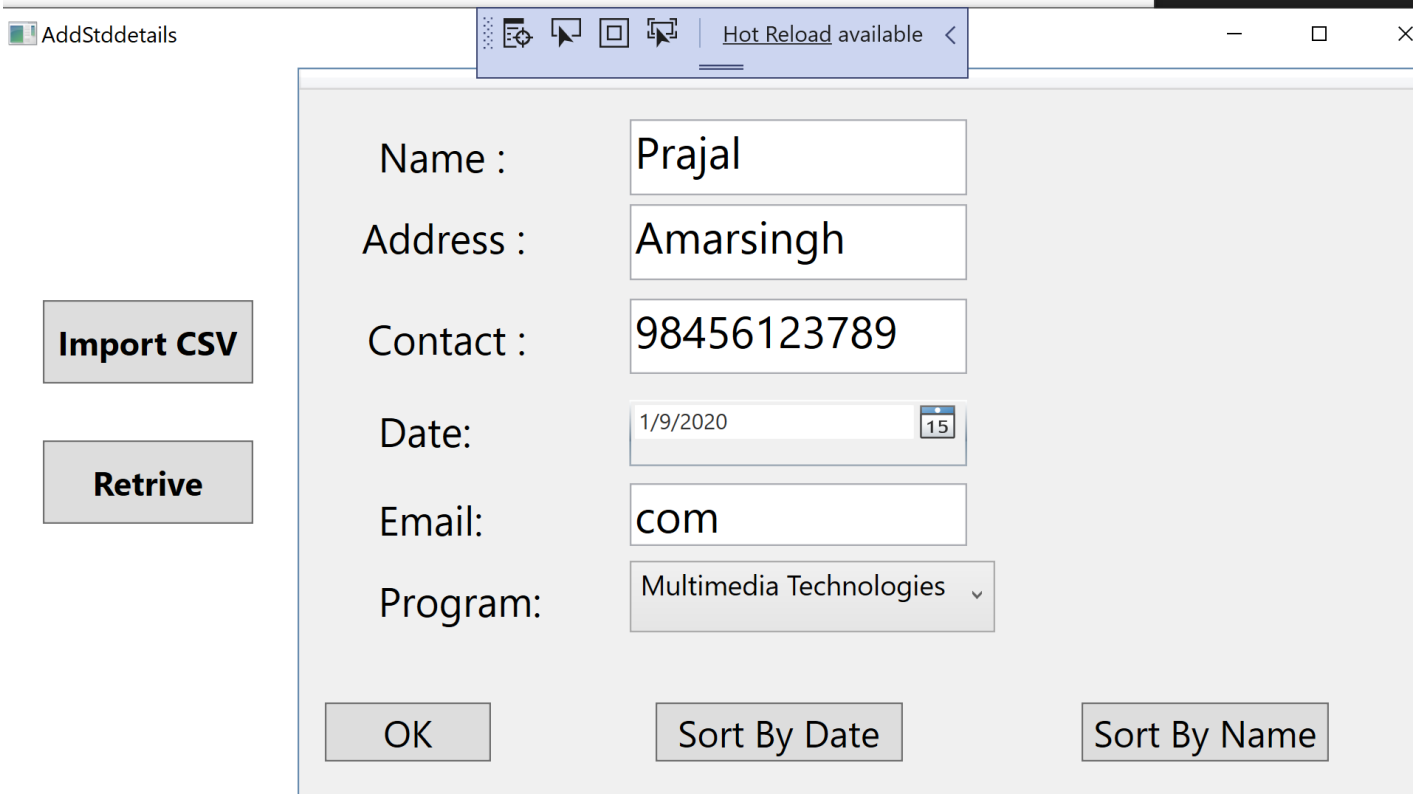


Figure 3: Details Added

After adding details and clicking ok details will be saved in the form of xml as shown above

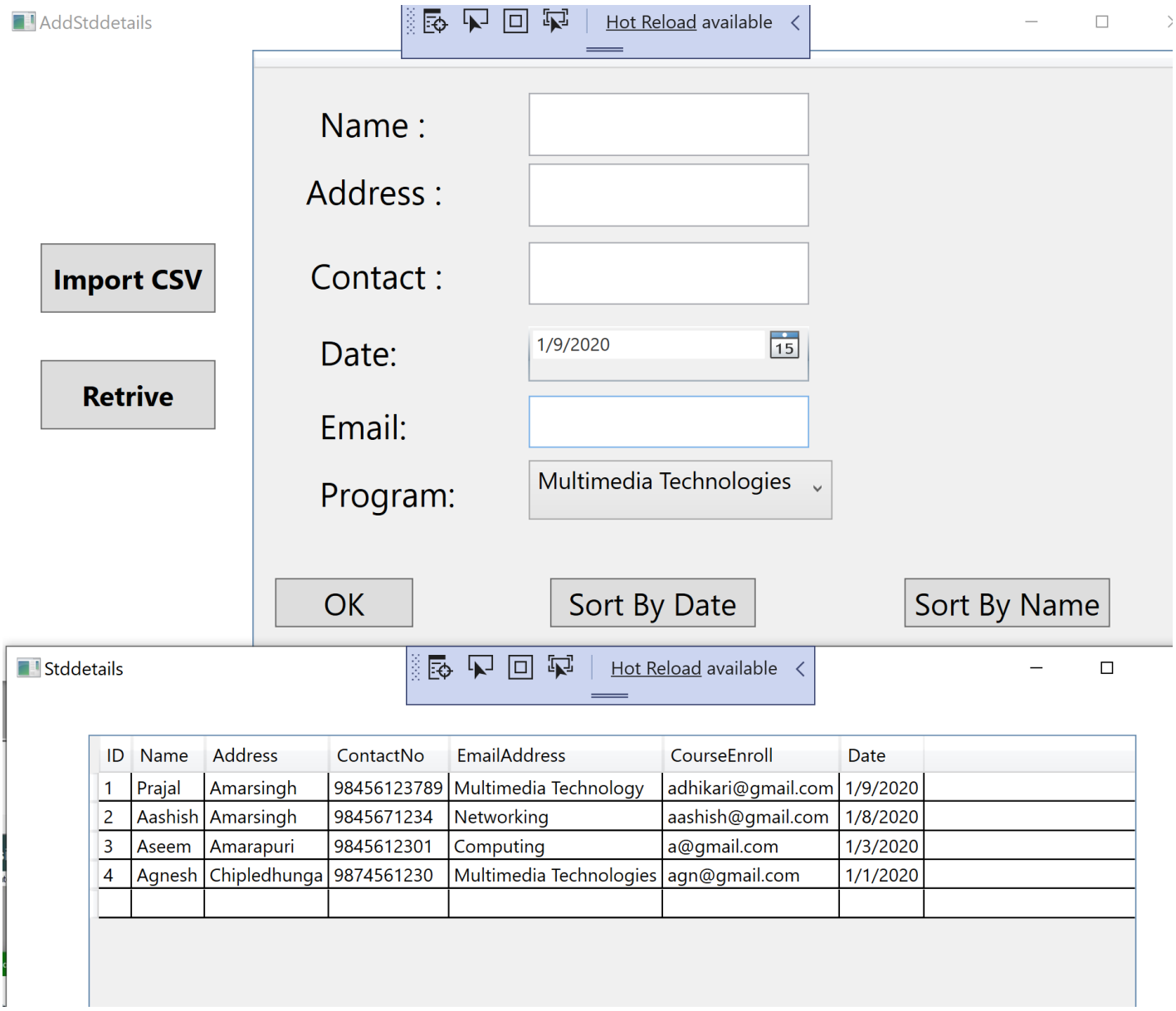


Figure 4: Retrieve Data

After user have successfully entered data retrieve button shows the number of student added with their details entered

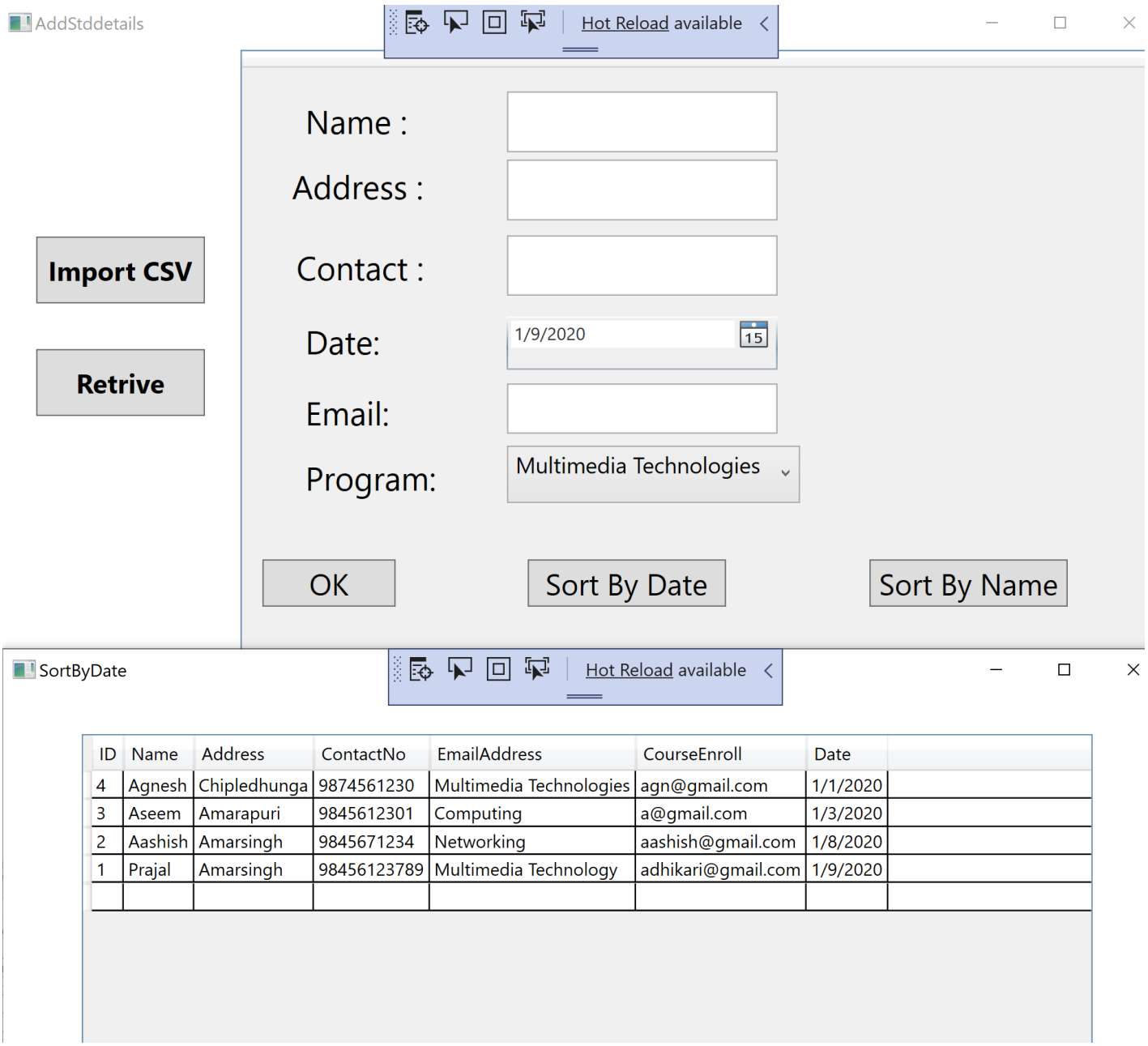
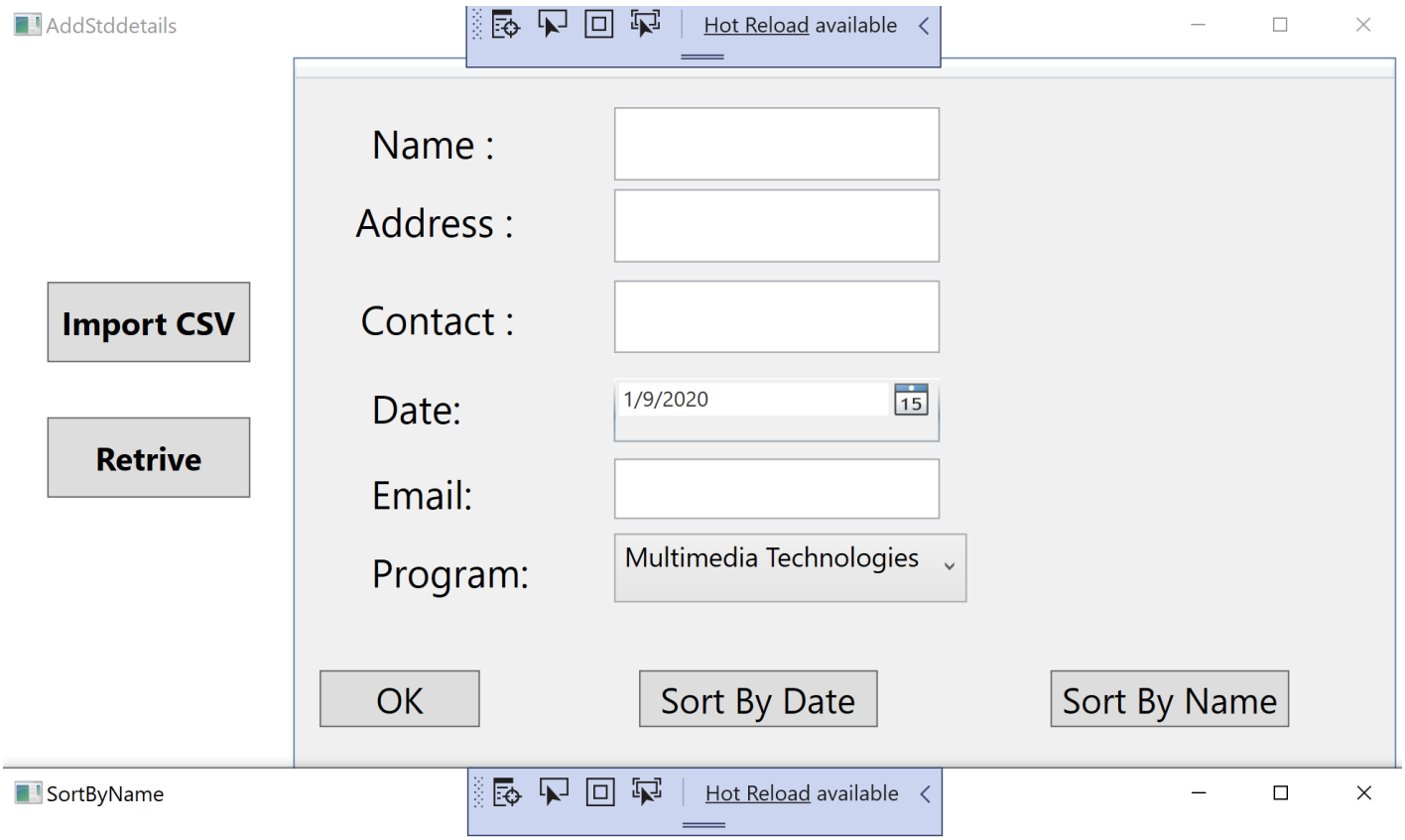
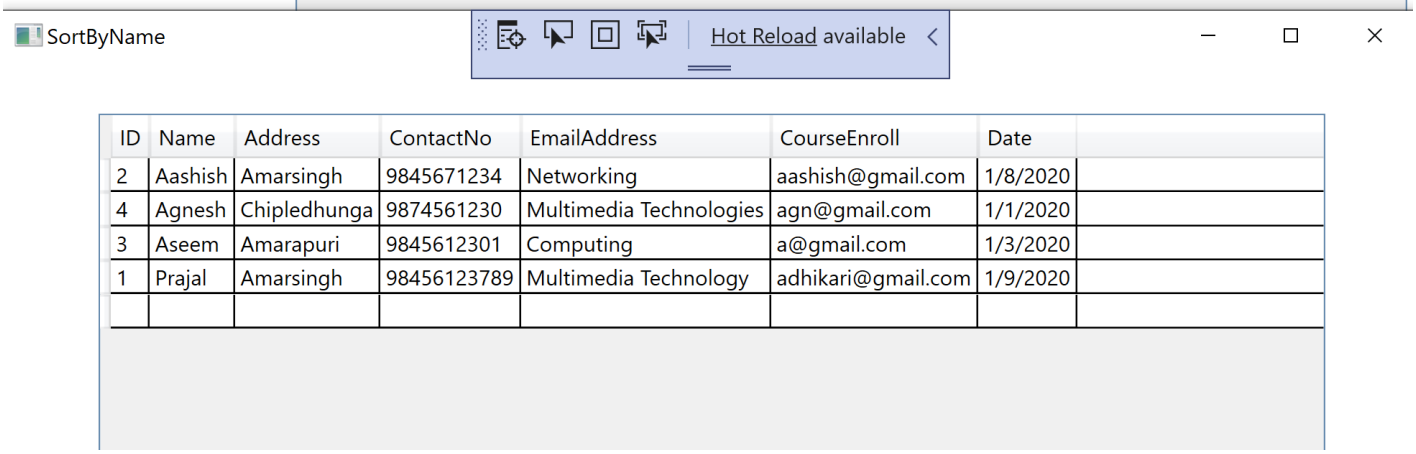


Figure 5: Sort by Date

Student Details can be viewed by their date. As given above after clicking “Sort By Date” button user are able to view student details by their date in new window.





ID	Name	Address	ContactNo	EmailAddress	CourseEnroll	Date
2	Aashish	Amarsingh	9845671234	Networking	aashish@gmail.com	1/8/2020
4	Agnesh	Chipledhunga	9874561230	Multimedia Technologies	agn@gmail.com	1/1/2020
3	Aseem	Amarapuri	9845612301	Computing	a@gmail.com	1/3/2020
1	Prajal	Amarsingh	98456123789	Multimedia Technology	adhikari@gmail.com	1/9/2020

Figure 6: Sort By Name

User can also view student details by their name as given above.

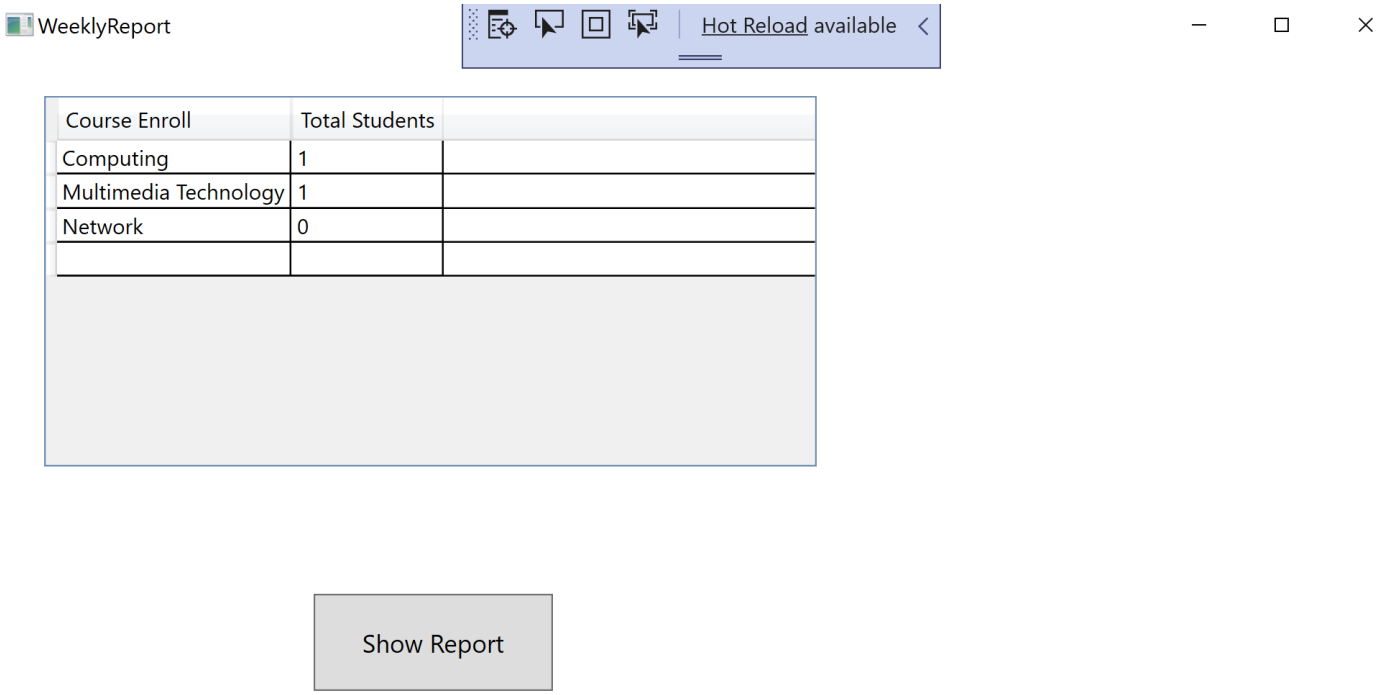


Figure 7: Weekly Report

Main Window Second Feature is to show weekly report of the courses as shown above

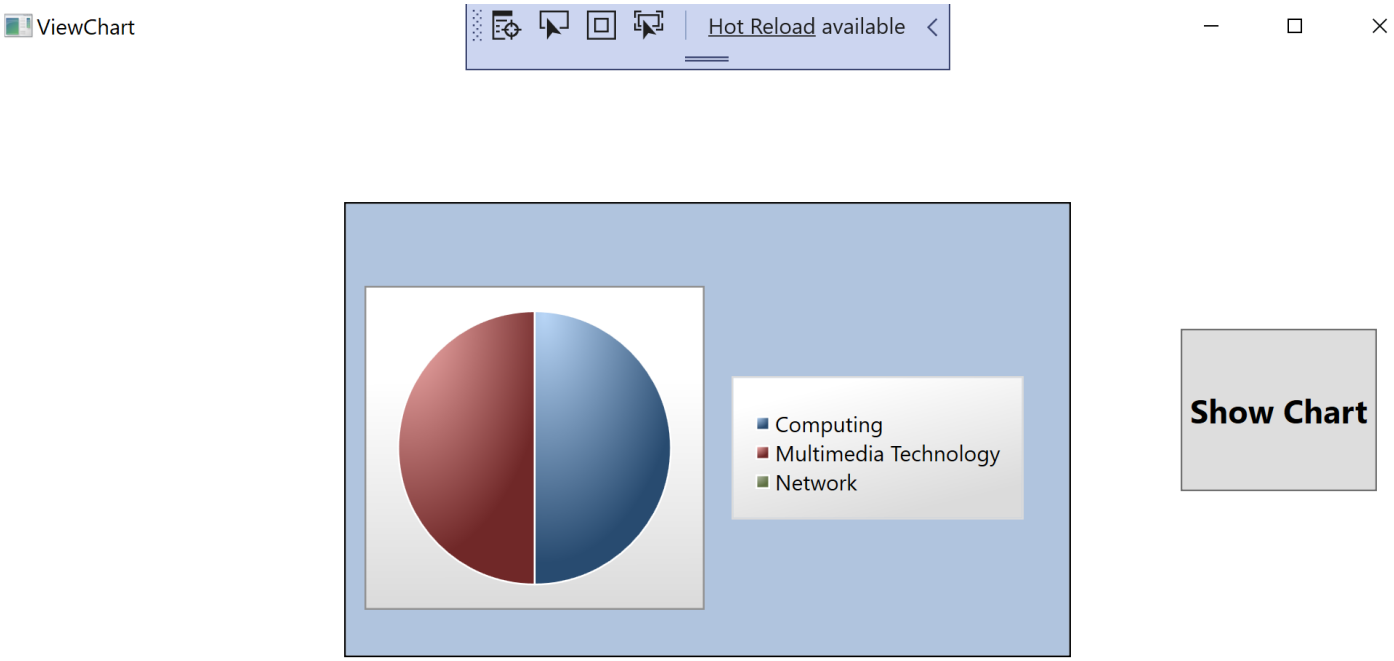


Figure 8: Chart

And the last feature of Main Window shows the chart which helps to keep the track of students.

3. Journal Articles

I. In the knowledge economy, universities and colleges play a pivotal role in knowledge creation, innovation, and dissemination, and in learning. Globalization in higher education means that universities are opening up campuses abroad, or offering distance-learning courses to students in other regions or countries, and such ventures are invariably dependent on the internet to provide both resources and administrative support for learning. Nations differ in their policies towards the “massification” of higher education: getting Wooldridge (2005) contrasts the approaches taken by the USA and Europe, noting how limited funding (and solely state funding) in some European universities in the league tables. Resources, and particularly electronic resources and services, matter, but our understanding of their impact is only now emerging (Jennifer Rowley, 2007).

II. There are several definitions for social media. Cambridge dictionary defines social media as “forms of media that allow people to communicate and share information using the internet or mobile phones.” A we know social media is a computer-based technology that facilitates to share the ideas, information and the making of virtual networks and communities (Balalle).

III.We live in a digital era that presents challenges for education systems but also offers new opportunities for teaching, learning and pedagogy (Battro and Fischer, 2012). The digital era is a term that is ever more associated with digital technologies such as fast computers, multimedia environments, and devices that can process and present information in real time and at high speed. Digital technology means either: (a) digital information stored on a computer and other electronic device; or (b) digital devices such as a smartphone, laptop, cameras, etc. (Eliana Gall ardo-Echen ique).

IV. The emergence of smart device technologies and mobile applications is offering educators new platforms to engage students with class material and facilitate classroom discussions. The continues surge by

students to adopt smart devices as an integral part of their educational experience is also forcing educators to adapt their teaching styles in utilizing these new technologies (McGovern, 2018).

4. System Architecture

Architecture Diagram

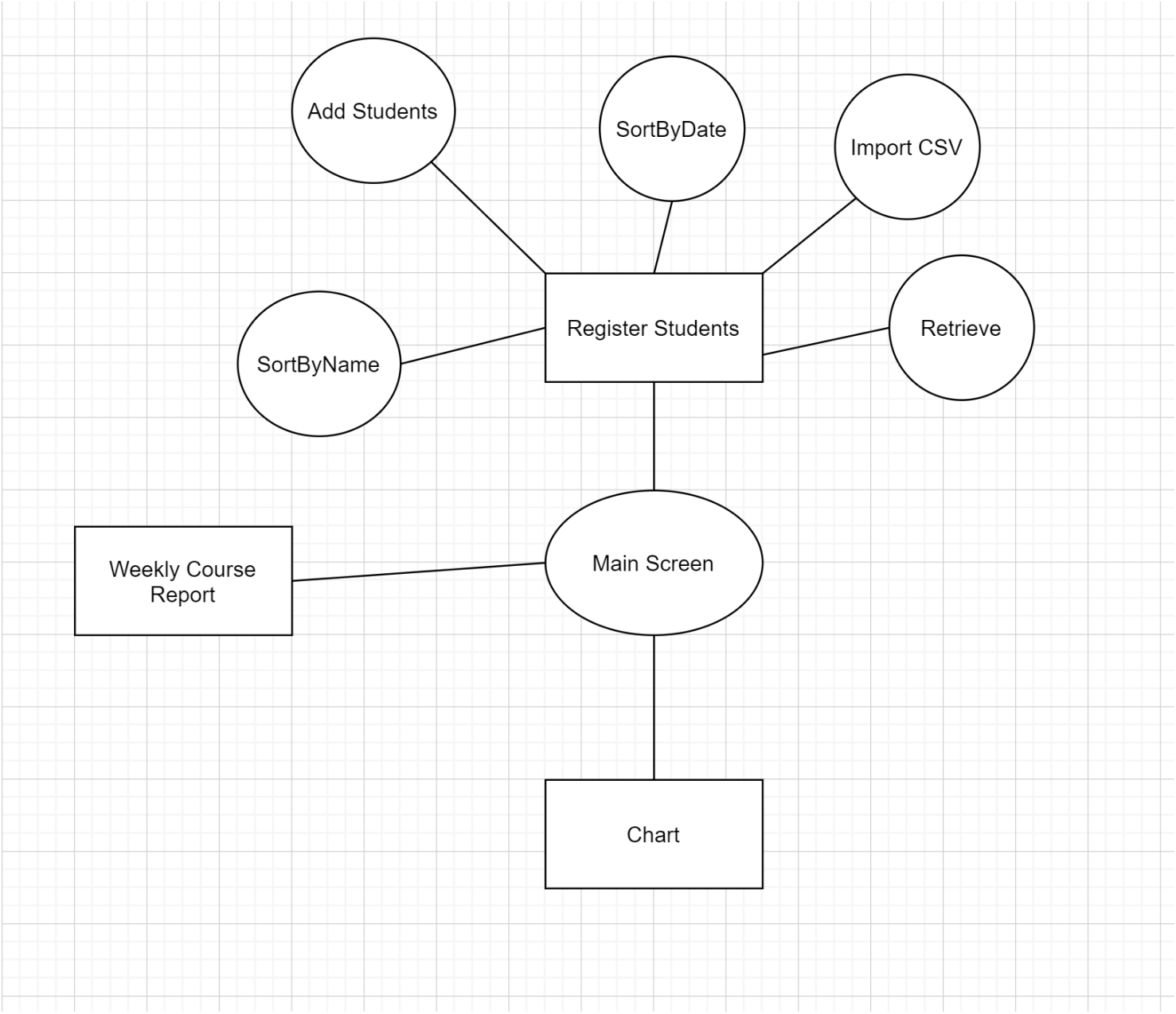


Figure 9: Architecture Diagram

Class Diagram

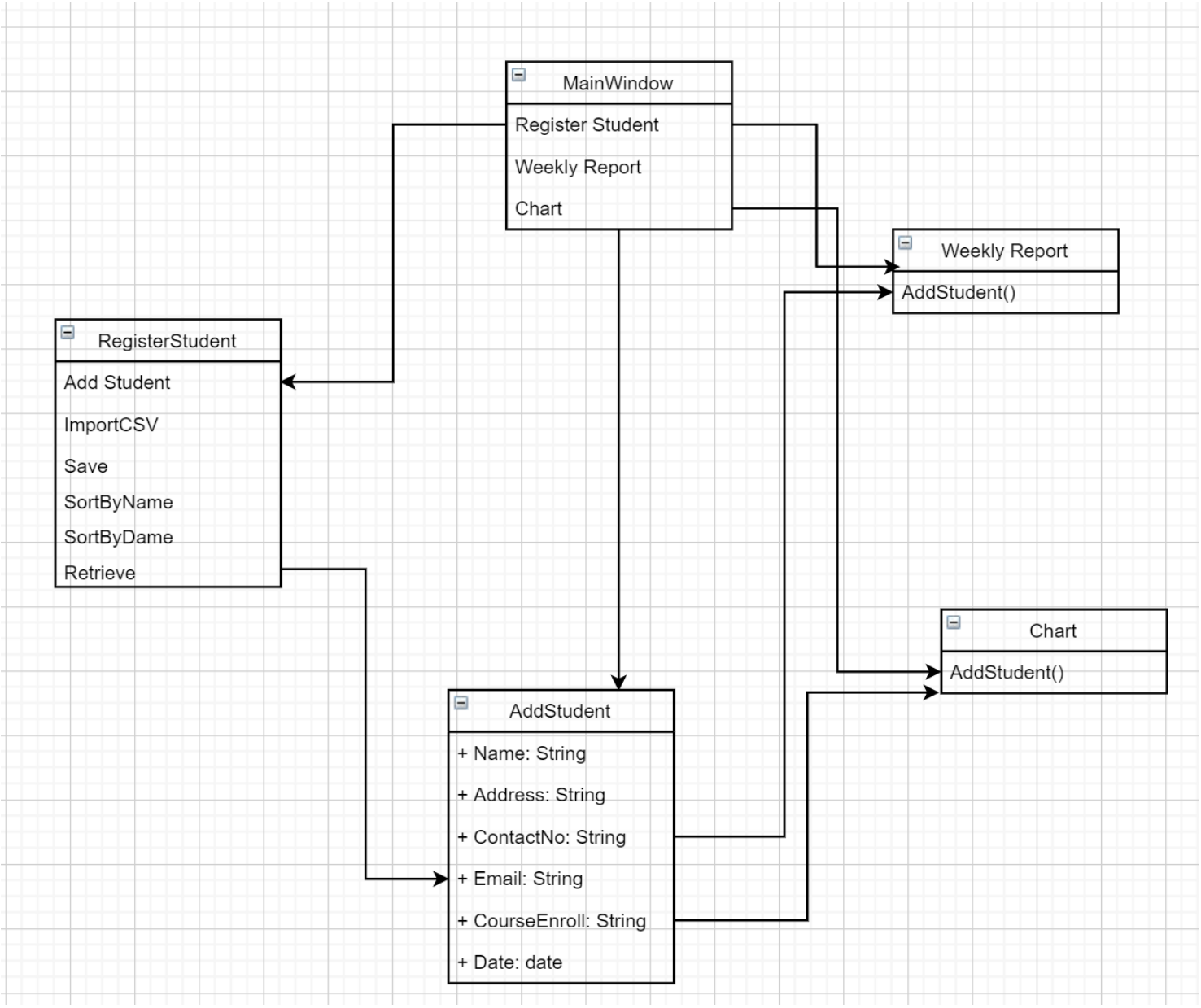


Figure 10: Class Diagram

Flowchart for Reports

Daily Report

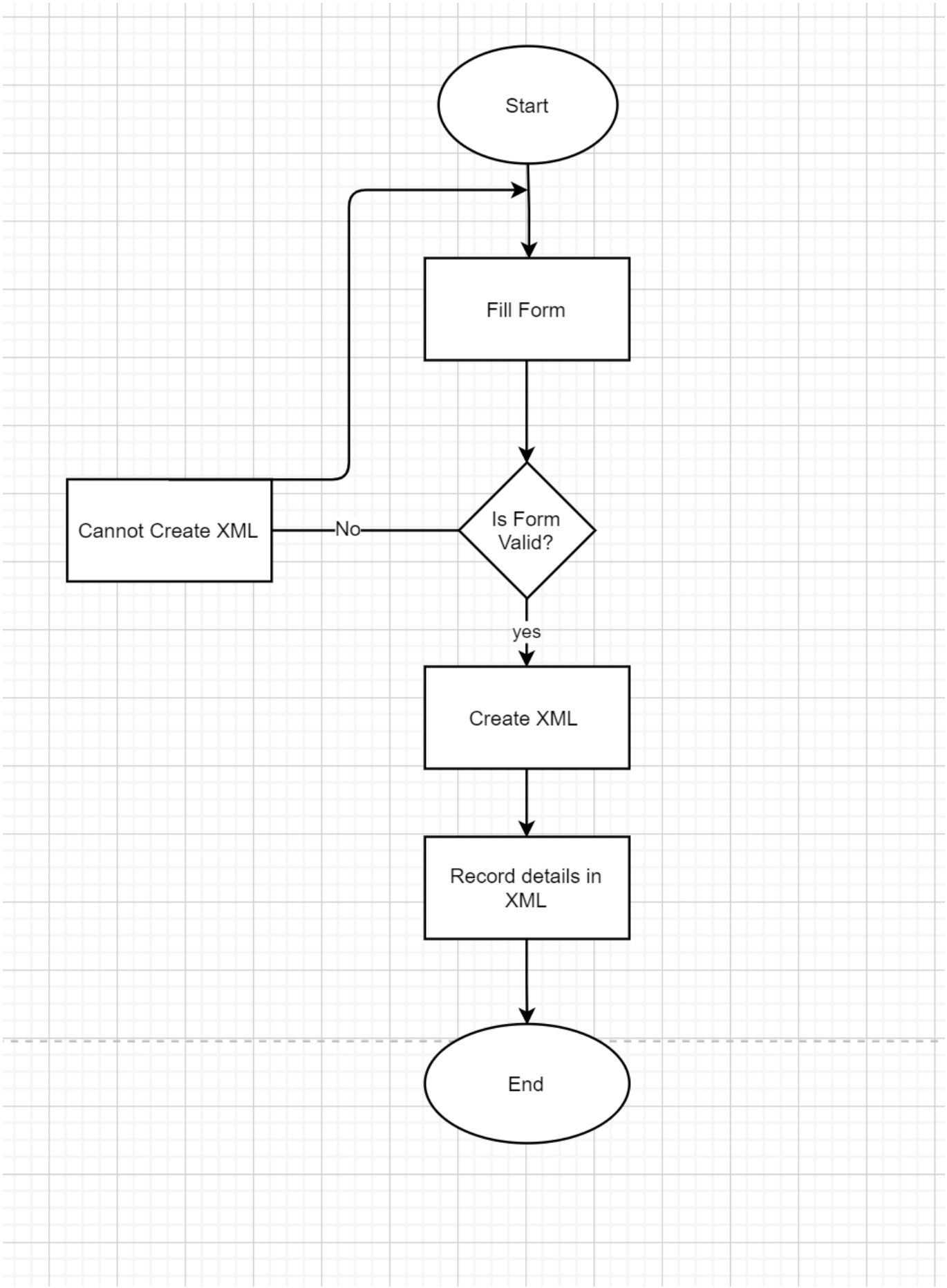

Start
Fill Form
Is Form Valid?
No
Cannot Create XML
yes
Create XML
Record details in XML
End

Figure 11: FLowchart

Weekly Report

Algorithms of Reports

Daily Report

Steps:

1. Start
2. Enter Student Details.
3. If Student details are field
4. Create XML or Cannot Create XML
5. Record details in XML
6. If data found, retrieve the data
7. Sort by name and Date
8. Display the data in the Bar chart and Weekly Report Course
9. Stop

5. Conclusion

The initial coursework for the module CS6004NA Application Development was to design and implement Student Information System. It was not an easy task because we had few basic concepts of using Visual Studio and also C#. The Framework has three features which can add student details, can show in the chart and also shows the weekly course report. Also application can view the added student details and also can sort the details by date and their name. Many research were done through internet which help a lot doing the task.

6. Bibliography

Balalle, D. H. (n.d.). International Journal of Advance Research, Ideas And Innovations In Technology. *The impact of social media on the student academic achievement*, 427.

Eliana Gall ardo-Echen ique, M. r.-M. (n.d.). Student Communication and Study Habits of First-year University Students in the Digital Era. *Canadian journal of Learning and Technology, 42(1)*.

Jennifer Rowley, C. U. (2007). Understanding Student Information Behavior in Relation to Electronic Information Services. *AMERICAN SOCIETY FOR INFORMATION SCIENCE AND TECHNOLOGY*.

McGovern, C. L.-N. (2018). On the Use of MobileApps in Education:The Impact of DigitalMagazines onStudent Learning. *Journal of Edicational Technology Systems*.

Appendix

MainWindow.cs

```
using DataHandler;
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows;
using System.Windows.Controls;
using System.Windows.Data;
using System.Windows.Documents;
using System.Windows.Input;
using System.Windows.Media;
using System.Windows.Media.Imaging;
using System.Windows.Navigation;
using System.Windows.Shapes;
using System.Data;

namespace CourseWorkSample
{
    /// <summary>
    /// Interaction logic for MainWindow.xaml
    /// </summary>
    public partial class MainWindow : Window
    {
        public MainWindow()
        {
            InitializeComponent();

        }
        private void nav1_Click(object sender, RoutedEventArgs e)
        {
            AddStddetails addstddetails = new AddStddetails();
            addstddetails.Show();
        }
        private void nav2_Click(object sender, RoutedEventArgs e)
        {
            WeeklyReport wkly = new WeeklyReport();
            wkly.Show();
        }
        private void nav4_Click(object sender, RoutedEventArgs e)
        {
            ViewChart wkly = new ViewChart();
            wkly.Show();
        }

    }
}
```

AddStddetails.cs

```
using DataHandler;
using Microsoft.Win32;
using System;
using System.Collections.Generic;
using System.Data;
using System.Data.OleDb;
using System.Globalization;
using System.IO;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows;
using System.Windows.Controls;
using System.Windows.Data;
using System.Windows.Documents;
using System.Windows.Input;
using System.Windows.Media;
using System.Windows.Media.Imaging;
using System.Windows.Shapes;

namespace CourseWorkSample
{
    /// <summary>
    /// Interaction logic for AddStddetails.xaml
    /// </summary>
    public partial class AddStddetails : Window
    {
        public AddStddetails()
        {
            InitializeComponent();
        }

        private void ImportCSV_Click(object sender, RoutedEventArgs e)
        {
            OpenFileDialog dialog = new OpenFileDialog();
            dialog.DefaultExt = ".csv";
            Nullable<bool> load = dialog.ShowDialog();

            if (load == true)
            {
                DataTable stdinfo = import_From_CSV(dialog.FileName, true);
                gridStudentDetails.ItemsSource = stdinfo.DefaultView;

            }
            else
            {
                MessageBox.Show("File not found");
            }
        }
        private void stddetails_Click(object sender, RoutedEventArgs e)
        {
            Stddetails std = new Stddetails();
            std.Show();
        }
        static DataTable import_From_CSV(string path, bool isFirstRowHeader)
        {
            string header = isFirstRowHeader ? "Yes" : "No";

            string pathdirectory = System.IO.Path.GetDirectoryName(path);
            string filename = System.IO.Path.GetFileName(path);
```

```
            string sql = @"SELECT * FROM [" + filename + "]";

            using (OleDbConnection connection = new OleDbConnection(
                      @"Provider=Microsoft.Jet.OLEDB.4.0;Data Source=" +
pathdirectory +
                      ";Extended Properties=\"Text;HDR=" + header + "\""))
            using (OleDbCommand command = new OleDbCommand(sql, connection))
            using (OleDbDataAdapter adapter = new OleDbDataAdapter(command))
            {
                DataTable dataTable = new DataTable();
                dataTable.Locale = CultureInfo.CurrentCulture;
                adapter.Fill(dataTable);
                return dataTable;
            }
        }
        private void AddStudentDetails(DataSet dataset)
        {

            var dt_student = dataset.Tables["Student"].NewRow();
            dt_student["Name"] = txtName.Text;
            dt_student["Address"] = txtAddress.Text;
            dt_student["ContactNo"] = txtContact.Text;
            dt_student["CourseEnroll"] = cbCourseEnroll.Text;
            dt_student["EmailAddress"] = txtemail.Text;
            dt_student["RegistrationDate"] =
RegistrationDate.SelectedDate.ToString();
            //MessageBox.Show("Date Added" +
dpRegistrationDate.SelectedDate.ToString());
            dataset.Tables["Student"].Rows.Add(dt_student);

        }
        private void AppendStudentDetails(DataSet dataset)
        {

            if (File.Exists(@"D:\Year 3\Application
Development\cw1\StudentReport.xml"))
            {
                dataset.Tables["StudentReport"].ReadXml(@"D:\Year 3\Application
Development\cw1\StudentReport.xml");
                var dt_student = dataset.Tables["StudentReport"].NewRow();
                dt_student["Name"] = txtName.Text;
                dt_student["Address"] = txtAddress.Text;
                dt_student["ContactNo"] = txtContact.Text;
                dt_student["CourseEnroll"] = cbCourseEnroll.Text;
                dt_student["EmailAddress"] = txtemail.Text;
                dt_student["RegistrationDate"] = RegistrationDate.SelectedDate;
                dataset.Tables["StudentReport"].Rows.Add(dt_student);

                dataset.Tables["StudentReport"].WriteXml(@"D:\Year
3\Application Development\cw1\StudentReport.xml");
            }
            else
            {
                dataset.Tables["StudentReport"].WriteXml(@"D:\Year
3\Application Development\cw1\StudentReport.xml");
                AppendStudentDetails(dataset);
            }

        }

        private void Show_Student_Details()
```

```
        {
            if (File.Exists(@"D:\Year 3\Application
Development\cw1\StudentReport.xml"))
            {
                var dataset = new DataSet();
                dataset.ReadXml(@"D:\Year 3\Application
Development\cw1\StudentReport.xml");
            }
            else
            {
                MessageBox.Show("Sorry, there's data. Please fill up the form
to view data.");
            }

        }

        private void Save_Click(object sender, RoutedEventArgs e)
        {
            var handler = new Handler();
            var dataset = handler.CreateDataSet();
            AddStudentDetails(dataset);
            AppendStudentDetails(dataset);

            dataset.Tables["Student"].WriteXml(@"D:\Year 3\Application
Development\cw1\" + txtName.Text + "Data.xml");
            //Res_no_write(txtResNo.Text);
            //txtResNo.Text = Res_no_read();

            MessageBox.Show("Sudent Details saved successfully!");
            txtName.Text = "";
            txtAddress.Text = "";
            txtContact.Text = "";
            txtemail.Text = "";
            //cbCourseEnroll.SelectedIndex
            //dpRegistrationDate.SelectedDate
            Stddetails stddetails = new Stddetails();
            stddetails.Show();
        }


        private void SortDate_Click(object sender, RoutedEventArgs e)
        {
            SortByDate std = new SortByDate();
            std.Show();

        }

        private void SortName_Click(object sender, RoutedEventArgs e)
        {

            SortByName std = new SortByName();
            std.Show();


        }

        private void Delete_Click(object sender, RoutedEventArgs e)
        {

        }
    }
}
```

SortByDate.cs

```
using System;
using System.Collections.Generic;
using System.Data;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows;
using System.Windows.Controls;
using System.Windows.Data;
using System.Windows.Documents;
using System.Windows.Input;
using System.Windows.Media;
using System.Windows.Media.Imaging;
using System.Windows.Shapes;

namespace CourseWorkSample
{
    /// <summary>
    /// Interaction logic for SortByDate.xaml
    /// </summary>
    public partial class SortByDate : Window
    {
        DataTable buffer;
        public SortByDate()
        {
            InitializeComponent();
            sortDate();
        }
        private void sortDate()
        {
            string sampleXmlFile = @"D:\Year 3\Application
Development\cw1\StudentReport.xml";
            DataSet dataset = new DataSet();
            dataset.ReadXml(sampleXmlFile);

            buffer = new DataTable("dt");
            buffer.Columns.Add("ID", typeof(String));
            buffer.Columns.Add("Name", typeof(String));
            buffer.Columns.Add("Address", typeof(String));
            buffer.Columns.Add("ContactNo", typeof(String));
            buffer.Columns.Add("EmailAddress", typeof(String));
            buffer.Columns.Add("CourseEnroll", typeof(String));
            buffer.Columns.Add("Date", typeof(String));

            for (int i = 0; i < dataset.Tables[0].Rows.Count; i++)
            {
                string s = dataset.Tables[0].Rows[i][6].ToString();
                DateTime dtime = DateTime.Parse(s);
                buffer.Rows.Add(
                    dataset.Tables[0].Rows[i][0].ToString(),
                    dataset.Tables[0].Rows[i][1].ToString(),
                    dataset.Tables[0].Rows[i][2].ToString(),
                    dataset.Tables[0].Rows[i][3].ToString(),
                    dataset.Tables[0].Rows[i][4].ToString(),
                    dataset.Tables[0].Rows[i][5].ToString(),
                    dtime.ToShortDateString());

            }
```

```
            DataView dataView = new DataView(buffer); // setting the itemsource
to table
            gridSortDate.ItemsSource = dataView;
        }
        // setting the itemsource to table
        // code responsible sorting in ascending order, In Date ASE, DATE
should match your variable from handler class
        // Displaying data
        private void SortDate_Click(object sender, RoutedEventArgs e)
        {
            DataView dataView = new DataView(buffer);
            dataView.Sort = "Date ASC";
            gridSortDate.ItemsSource = dataView;
        }
    }
}
```

SortByName.cs

```
using System;
using System.Collections.Generic;
using System.Data;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows;
using System.Windows.Controls;
using System.Windows.Data;
using System.Windows.Documents;
using System.Windows.Input;
using System.Windows.Media;
using System.Windows.Media.Imaging;
using System.Windows.Shapes;

namespace CourseWorkSample
{
    /// <summary>
    /// Interaction logic for SortByName.xaml
    /// </summary>
    public partial class SortByName : Window
    {
        DataTable buffer;
        public SortByName()
        {
            InitializeComponent();
            sortName();
        }
        private void sortName()
        {
            string sampleXmlFile = @"D:\Year 3\Application
Development\cw1\StudentReport.xml";
            DataSet dataset = new DataSet();
            dataset.ReadXml(sampleXmlFile);

            buffer = new DataTable("dt");
            buffer.Columns.Add("ID", typeof(String));
            buffer.Columns.Add("Name", typeof(String));
            buffer.Columns.Add("Address", typeof(String));
            buffer.Columns.Add("ContactNo", typeof(String));
            buffer.Columns.Add("EmailAddress", typeof(String));
            buffer.Columns.Add("CourseEnroll", typeof(String));
            buffer.Columns.Add("Date", typeof(String));
```

```
            for (int i = 0; i < dataset.Tables[0].Rows.Count; i++)
            {
                string s = dataset.Tables[0].Rows[i][6].ToString();
                DateTime dtime = DateTime.Parse(s);
                buffer.Rows.Add(
                    dataset.Tables[0].Rows[i][0].ToString(),
                    dataset.Tables[0].Rows[i][1].ToString(),
                    dataset.Tables[0].Rows[i][2].ToString(),
                    dataset.Tables[0].Rows[i][3].ToString(),
                    dataset.Tables[0].Rows[i][4].ToString(),
                    dataset.Tables[0].Rows[i][5].ToString(),
                    dtime.ToShortDateString());

            }

            DataView view = new DataView(buffer); // setting the itemsource to
table
            gridSortName.ItemsSource = view;
        }

        private void SortName_Click(object sender, RoutedEventArgs e)
        {
            DataView view = new DataView(buffer); // setting the itemsource to
table
            view.Sort = "Name ASC";
            gridSortName.ItemsSource = view;

        }
    }
}
```

Stddetails.cs

```
using DataHandler;
using System;
using System.Collections.Generic;
using System.Data;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows;
using System.Windows.Controls;
using System.Windows.Data;
using System.Windows.Documents;
using System.Windows.Input;
using System.Windows.Media;
using System.Windows.Media.Imaging;
using System.Windows.Shapes;

namespace CourseWorkSample
{
    /// <summary>
    /// Interaction logic for Stddetails.xaml
    /// </summary>
    public partial class Stddetails : Window
    {
        public Stddetails()
        {
            InitializeComponent();
        }
```

```
        private void display_Report()
        {
            string sampleXmlFile = @"D:\Year 3\Application
Development\cw1\StudentReport.xml";
            DataSet dataset = new DataSet();
            dataset.ReadXml(sampleXmlFile);

            DataTable buffer = new DataTable("dt");
            buffer.Columns.Add("ID", typeof(String));
            buffer.Columns.Add("Name", typeof(String));
            buffer.Columns.Add("Address", typeof(String));
            buffer.Columns.Add("ContactNo", typeof(String));
            buffer.Columns.Add("EmailAddress", typeof(String));
            buffer.Columns.Add("CourseEnroll", typeof(String));
            buffer.Columns.Add("Date", typeof(String));

            for (int i = 0; i < dataset.Tables[0].Rows.Count; i++)
            {
                string s = dataset.Tables[0].Rows[i][6].ToString();
                DateTime dtime = DateTime.Parse(s);
                buffer.Rows.Add(
                    dataset.Tables[0].Rows[i][0].ToString(),
                    dataset.Tables[0].Rows[i][1].ToString(),
                    dataset.Tables[0].Rows[i][2].ToString(),
                    dataset.Tables[0].Rows[i][3].ToString(),
                    dataset.Tables[0].Rows[i][4].ToString(),
                    dataset.Tables[0].Rows[i][5].ToString(),
                    dtime.ToShortDateString());

            }

            DataView dataView = new DataView(buffer); // setting the itemsource
to table
            grdStudentDetails.ItemsSource = dataView;  // viewing?
        }

        private void btnStudentDetails_Click(object sender, RoutedEventArgs e)
        {
            display_Report();
        }
    }
}
```

VisitorChart.cs

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows;
using System.Windows.Controls;
using System.Windows.Data;
using System.Windows.Documents;
using System;
using System.Collections.Generic;
using System.Data;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows;
```

```
using System.Windows.Controls;
using System.Windows.Data;
using System.Windows.Documents;
using System.Windows.Input;
using System.Windows.Media;
using System.Windows.Media.Imaging;
using System.Windows.Shapes;
using System.Windows.Controls.DataVisualization.Charting;

namespace CourseWorkSample
{
    /// <summary>
    /// Interaction logic for WeeklyReport.xaml
    /// </summary>
    public partial class ViewChart : Window
    {

        public ViewChart()
        {
            InitializeComponent();
        }
        private void ShowChart_Click(object sender, RoutedEventArgs e)
        {
            var dataset = new DataSet(); // declaring new data set
            dataset.ReadXml(@"D:\Year 3\Application
Development\cw1\StudentReport.xml");  // reading main report
            DataTable stdReport = dataset.Tables[0];
            int total_Com = 0;   // assigning initial values of Course to
            int total_Mul = 0;
            int total_Net = 0;

            DataTable dt = new DataTable("tbl");
            dt.Columns.Add("Course Enroll", typeof(String));  // creating two
columns
            dt.Columns.Add("Total Students", typeof(int));

            for (int i = 0; i < stdReport.Rows.Count; i++)
            {


                String col = stdReport.Rows[i]["CourseEnroll"].ToString();
                if (col == "Computing")
                {
                    total_Com++;   // incrementing values of each course based
on user input
                }
                else if (col == "Multimedia Technology")
                {
                    total_Mul++;
                }
                else if (col == "Network")
                {
                    total_Net++;
                }
            }

            dt.Rows.Add("Computing", total_Com);          // final assign
            dt.Rows.Add("Multimedia Technology", total_Mul);
            dt.Rows.Add("Network", total_Net);

            ((PieSeries)PieChart).ItemsSource =
            new KeyValuePair<string, int>[]{
```

```
        new KeyValuePair<string,int>("Computing", total_Com),
        new KeyValuePair<string,int>("Multimedia Technology", total_Mul),
        new KeyValuePair<string,int>("Network", total_Net) };

        }


    }
}
```

VisitorEntry.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;
 namespace
MuseumMgntSystem
{     public partial class VisitorEntry :
Form
    {
        public VisitorEntry()
        {
            InitializeComponent();
        }
        public Visitor Visitor
        {
get             {
                var visitor = new Visitor();
visitor.Date = datePicker.Value.Date;                 visitor.Day =
datePicker.Value.DayOfWeek.ToString();
visitor.CardName = cardNametextBox.Text;
visitor.InTime = inTimePicker.Value.TimeOfDay;
visitor.OutTime = outTimePicker.Value.TimeOfDay;
visitor.TotalMinutes = visitor.CalculateTotalMinutes();
if (datePicker.Value.DayOfWeek == DayOfWeek.Saturday ||
datePicker.Value.DayOfWeek == DayOfWeek.Sunday)
                {
                    datePicker.Enabled = false;
                    MessageBox.Show("The entered date is either Saturday or
Sunday so the date is automatically updated to Monday of the same week.",
"Notice", MessageBoxButtons.OK, MessageBoxIcon.Warning);
visitor.Date=
datePicker.Value.Date.AddDays(((int)datePicker.Value.DayOfWeek * -1) + 1);
visitor.Day= visitor.Date.DayOfWeek.ToString();
                }
                return visitor;


            }


        }
        private void VisitorEntry_Load(object sender, EventArgs e)
        {             inTimePicker.MinDate =
DateTime.Parse("10:00:00");             inTimePicker.MaxDate =
DateTime.Parse("16:45:00");
```

```
            outTimePicker.MinDate =
DateTime.Parse("10:01:00");             outTimePicker.MaxDate =
DateTime.Parse("16:59:00");
            if (DateTime.Now.DayOfWeek == DayOfWeek.Saturday ||
DateTime.Now.DayOfWeek == DayOfWeek.Sunday)
            {
                MessageBox.Show("The ABC Museum remains closed on weekends.",
"Museum Closed", MessageBoxButtons.OK, MessageBoxIcon.Warning);
this.Close();
            }
            if (DateTime.Now <= DateTime.Parse("9:59:00") || DateTime.Now >=
DateTime.Parse("17:00:00"))
            {
                MessageBox.Show("The ABC Museum opens from 10 A.M to 5 P.M",
"Museum Closed", MessageBoxButtons.OK, MessageBoxIcon.Warning);
this.Close();
            }



        }
        private void cardNametextBox_KeyPress_1(object sender,
KeyPressEventArgs e)
        {
            e.Handled = !(char.IsLetter(e.KeyChar) || e.KeyChar ==
(char)Keys.Back);
        }



    } }
```

WeeklyReport.cs

```
using System;
using System.Collections.Generic;
using System.Data;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows;
using System.Windows.Controls;
using System.Windows.Data;
using System.Windows.Documents;
using System.Windows.Input;
using System.Windows.Media;
using System.Windows.Media.Imaging;
using System.Windows.Shapes;

namespace CourseWorkSample
{
    /// <summary>
    /// Interaction logic for WeeklyReport.xaml
    /// </summary>
    public partial class WeeklyReport : Window
    {
        public WeeklyReport()
        {
            InitializeComponent();
        }
```

```
        private void WeeklyReport_Click(object sender, RoutedEventArgs e)
        {
            var dataset = new DataSet(); // declaring new data set
            dataset.ReadXml(@"D:\Year 3\Application
Development\cw1\StudentReport.xml");  // reading main report
            DataTable stdReport = dataset.Tables[0];
            int total_Com = 0;   // assigning initial values of Course to
            int total_Mul = 0;
            int total_Net = 0;

            DataTable dt = new DataTable("tbl");
            dt.Columns.Add("Course Enroll", typeof(String));  // creating two
columns
            dt.Columns.Add("Total Students", typeof(int));

            for (int i = 0; i < stdReport.Rows.Count; i++)
            {


                String col = stdReport.Rows[i]["CourseEnroll"].ToString();
                if (col == "Computing")
                {
                    total_Com++;   // incrementing values of each course based
on user input
                }
                else if (col == "Multimedia Technology")
                {
                    total_Mul++;
                }
                else if (col == "Network")
                {
                    total_Net++;
                }
            }

            dt.Rows.Add("Computing", total_Com);          // final assign
            dt.Rows.Add("Multimedia Technology", total_Mul);
            dt.Rows.Add("Network", total_Net);


            gridWeeklyReport.DataContext = dt.DefaultView; // is the name of
data grid
        }

    }
}
```