Marking Scheme

Informatics College Pokhara

informatics
college pokhara

Application Development
CS6004NI
Course Work 1

Submitted By: **Bimochan Thapa Magar**
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	missing controls in the interface
Manual data entry or import from csv	not properly saved or imported data
Data Validation	Only basic validation
Enrollment Report & weekly report in tabular format	Any one of the report is missing or not complete
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 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	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 poor code
System Usability	unusable system

Overall Grade:	**D+**	**D+**

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.

Trying the implementation and is confident with the code he has worked with.

Module Code & Module Title

CU6004NP

Application Development

Assessment Weightage & Type

30% Individual Coursework- 1

Year and Semester

2018-19 Autumn

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College ID: NP04CP4S180005

University ID: 17031940

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Introduction

Today's world is digitalized world, every documents or file in a company, organizations and schools are kept in a digital file. Hard copy of the document is hardly favorable and used. The digital document is easy used and safe. As the coursework demand, we are able to make the attendance management system for the college. We know every educational institution like preschools, primary-elementary schools, secondary-high schools, and universities has the numbers of students, teacher, classroom and courses.

Student management system is a software developed to maintain and track students' detail with course for any education organization. The system is built in Visual Studio with C# and WPF .NET Framework. WPF .NET Framework is a web development platform, which provides a programming model, a comprehensive software infrastructure and various services required to build up robust web applications for PC, as well as mobile devices C# is an elegant and type-safe object-oriented language that enables developers to build a variety of secure and robust applications that run on the .NET Framework. C# is used to create Windows client applications, XML Web services, distributed components, client-server applications, database applications, and much, much more.

In this student management software only owner or administrator can operate the system. Admin has to first add detail of students with their names, address, contact no, email, program enroll, registration date. The next work is to create teacher profile with suitable course. After adding course detail and teacher detail we can add student detail in our system. We provide search facility by course wise, student wise, fees status wise, teacher wise in our project. The developed application allows the user to input the student personal detail including registration date so that a system can generate a weekly enrolment report of the student. System must include detail like Name, address, contact no, email, program enroll, registration date and daily wage amount of the employee. This student management software aims to keep student's details, program enrolls and registration date.

User Manual

The user manuals are considered to be extremely handy things, which play an essential role in the world of electronics, programs or many more. Properly reading and understanding the instruction manual, saves a lot of time. The more accurate a manual is, the less time it will take to learn and use the different features of the device. This user manual will guide on how to use and do certain things in the system. The system is user friendly and easy to use. This step by step documentation is for the users having User role.

So, I have prepared an effective user manual for the system. The developed application is very easy as the system has a simple User Interface. I have designed a client/user manual below to make sure that the system user faces no problems while using the system.

Step 1:

First, open the application using Visual Studio.

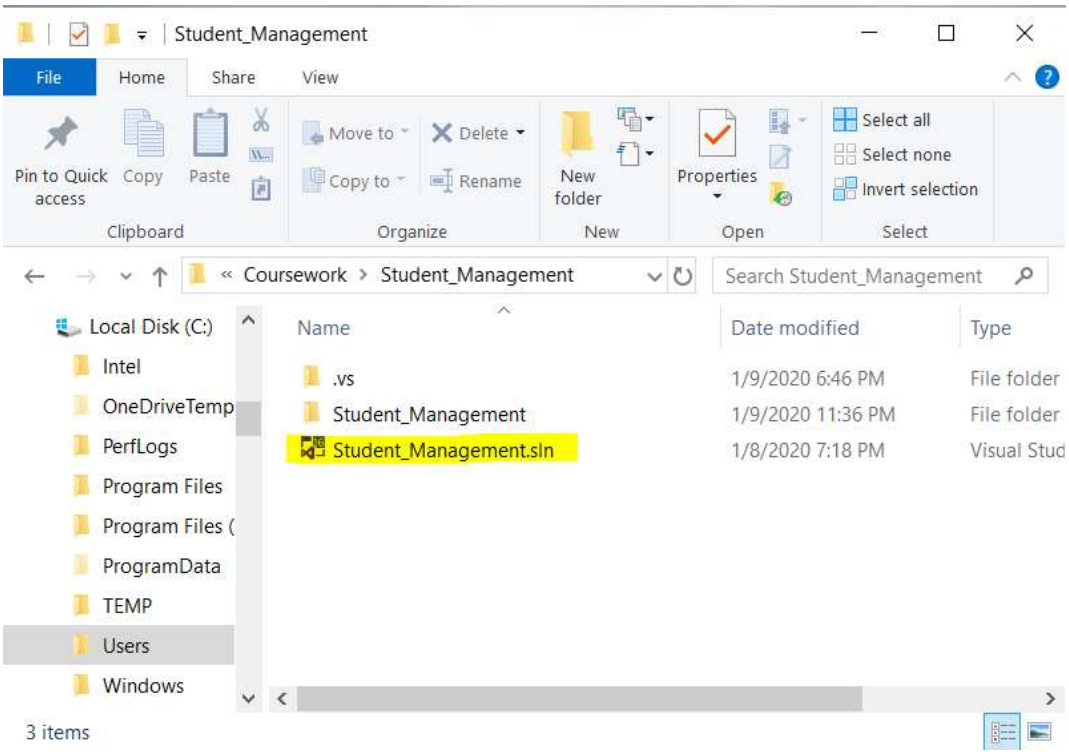


Figure 1: Opening the application (Step-1)

To open the application double, click on the Student_Management.sln After the Visual Studio runs, you will see a page like below:

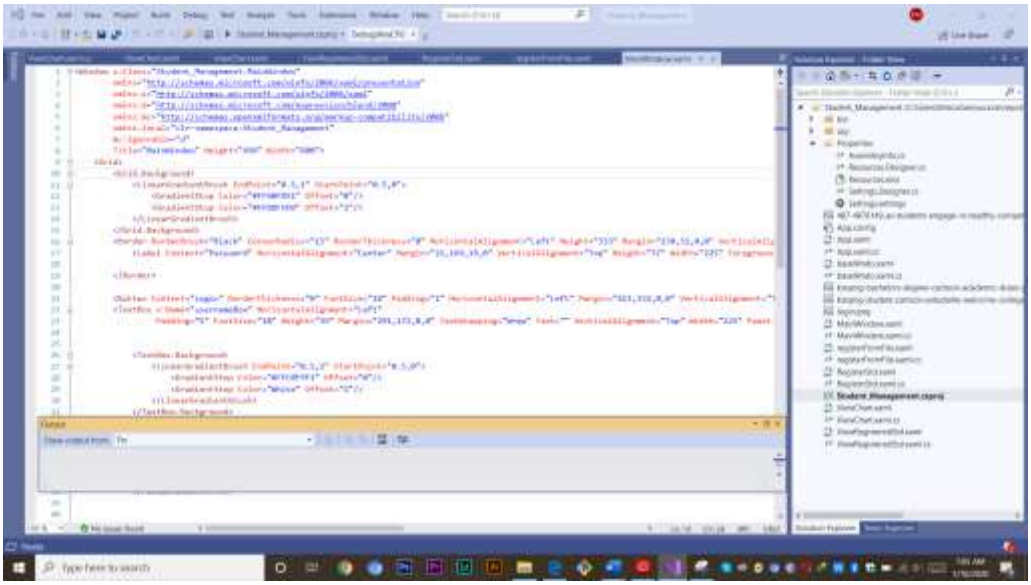


Figure 2: Opening the application (Step-2)

Now to run the project, simply click on IIS Express (Google Chrome).

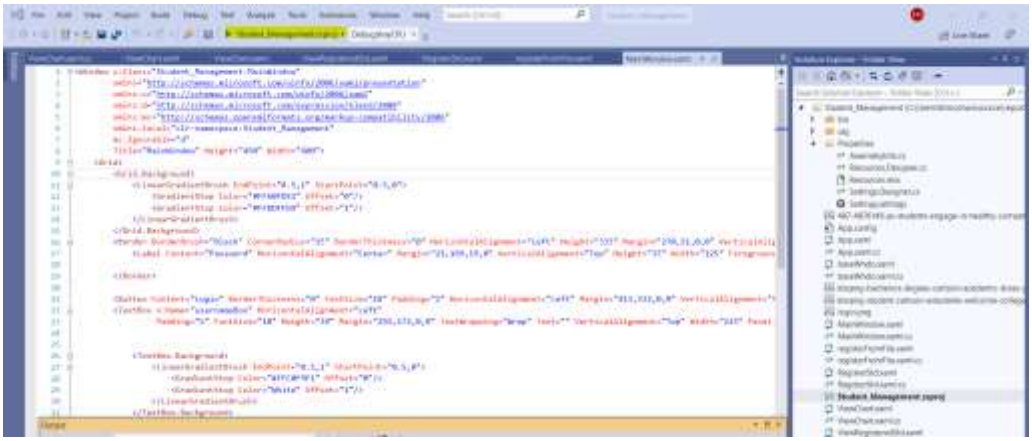


Figure 3: Opening the application (Step-3)

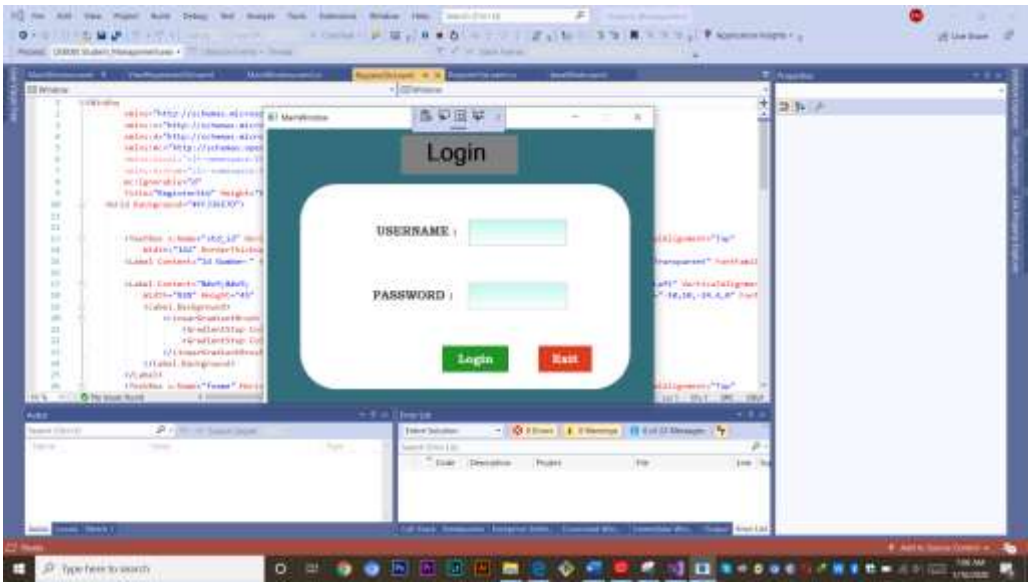


Figure 4: Login page

After opening the project, we can see the Login screen of the project like this. From the login page, we can login as a user or as an admin.

Step 2:

Let us login as a user using username as “Bimochan” and password “bimochan2”.

Figure 5: Login process

Here, username and password is must for the log in process to login as a user.

Step 3:

After entering the correct username and password. Click on the login button to login as a user.

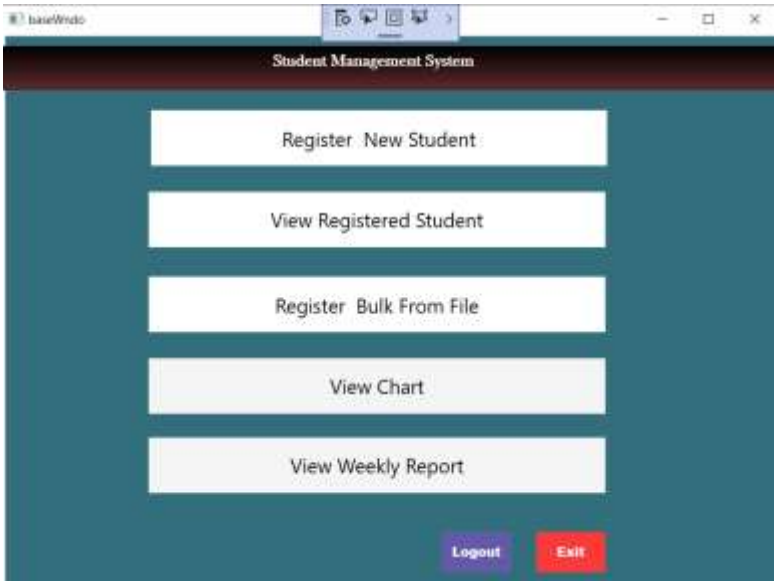


Figure 6: Home page

After user login successful, we can see the homepage of the user system like this. The system contains the functions like: register new student, view registered student, register bulk from file, view chart and view weekly report.

Step 4: New student registration form

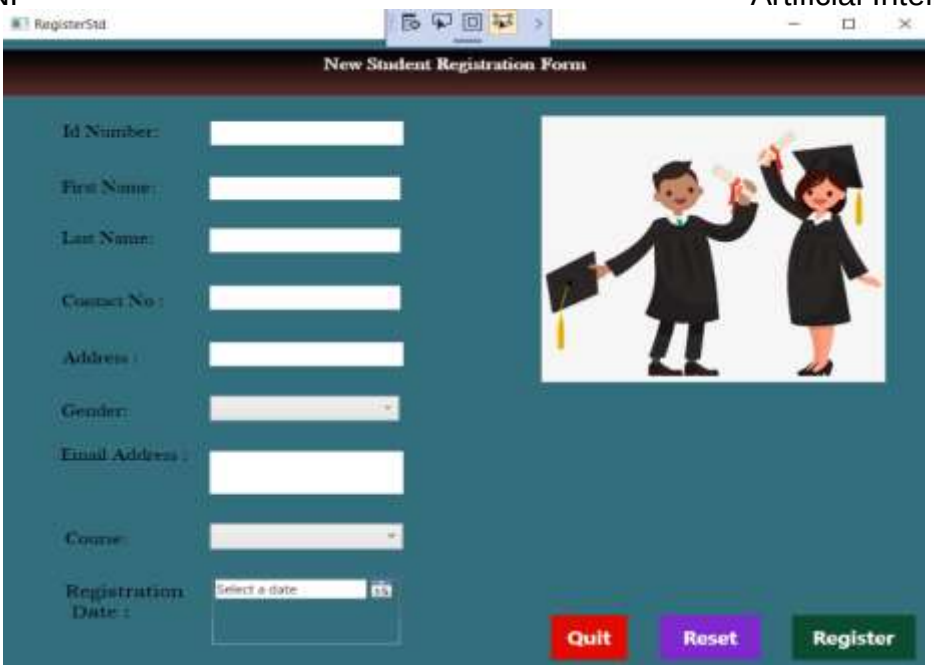


Figure 7: Registration form for new student

Now the user has to enter the details of the new student.

Step 5: Filling the student registration form

Figure 8: Student details saved

Step 6: Retrieving data after saving in XML file

Figure 9: Importing student data/ Retrieving students data

Step 7: Sort by student's name

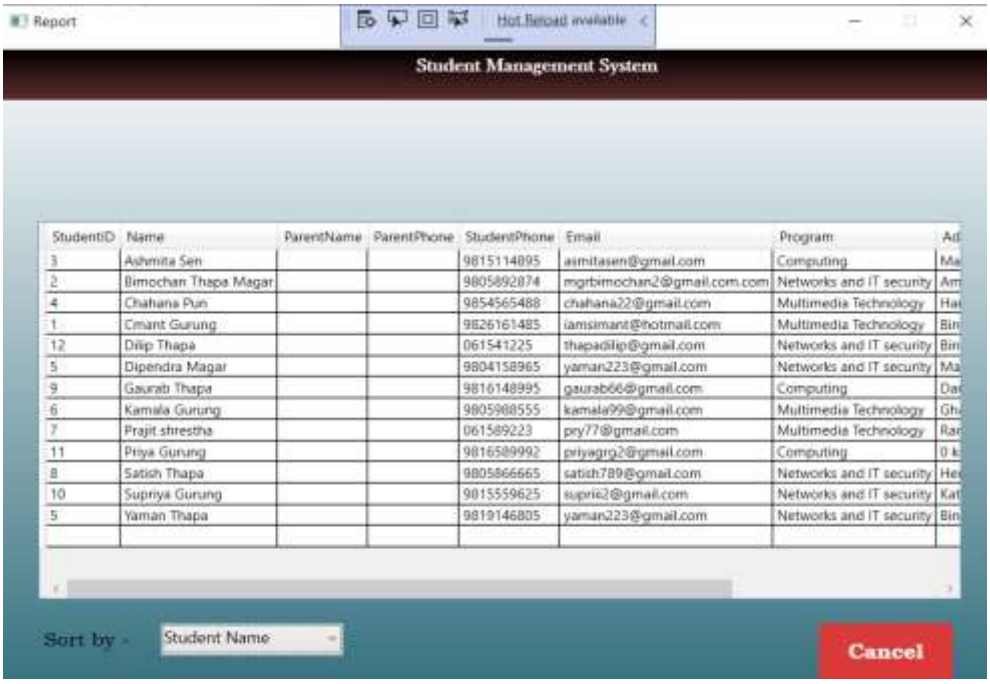


Figure 10: Sorting by student name

Step 8: Sort by registration date

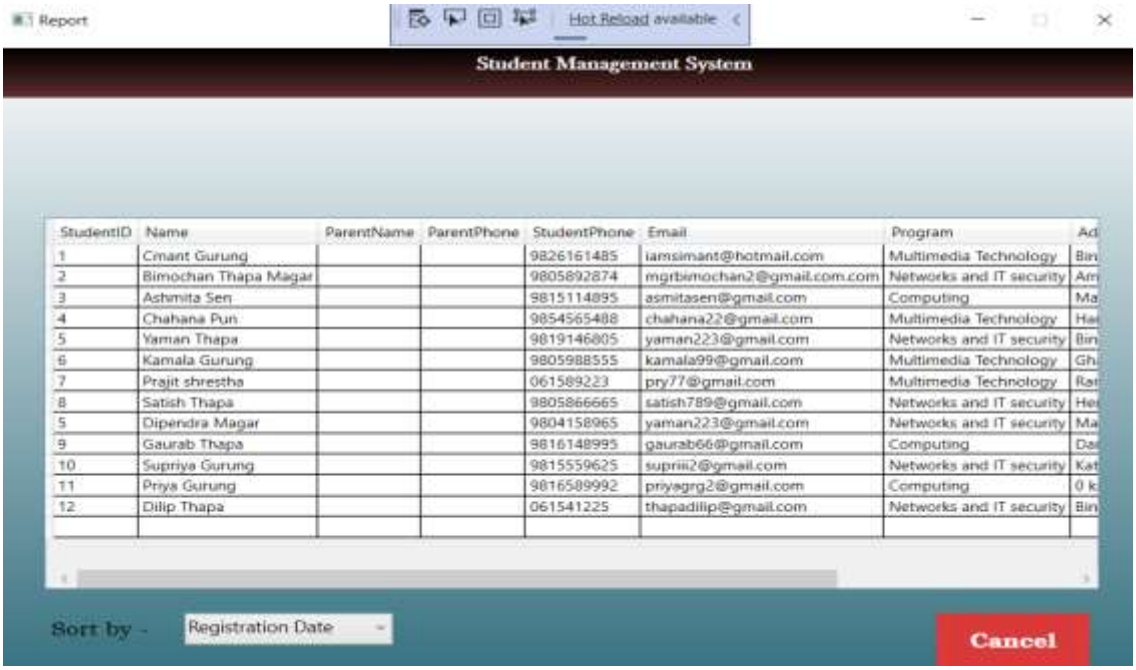


Figure 11: Sorting by registration date

Step 9: Register from bulk file

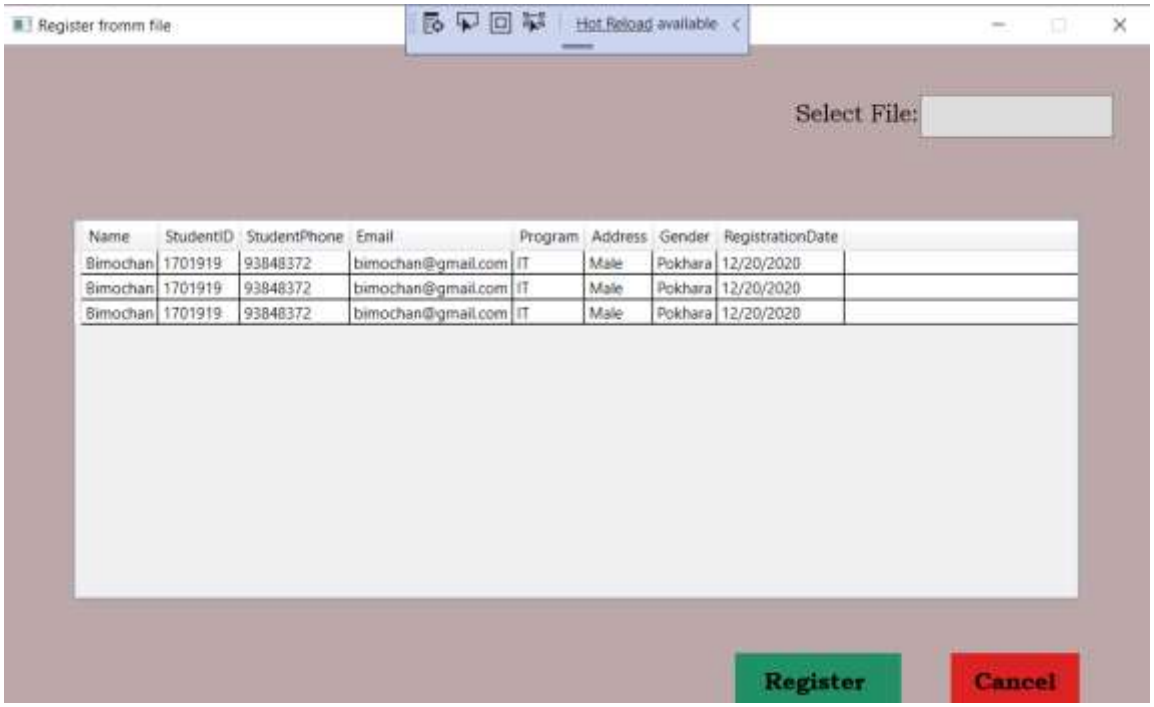


Figure 12: Registering from bulk file

Step 10: Weekly student registration chart

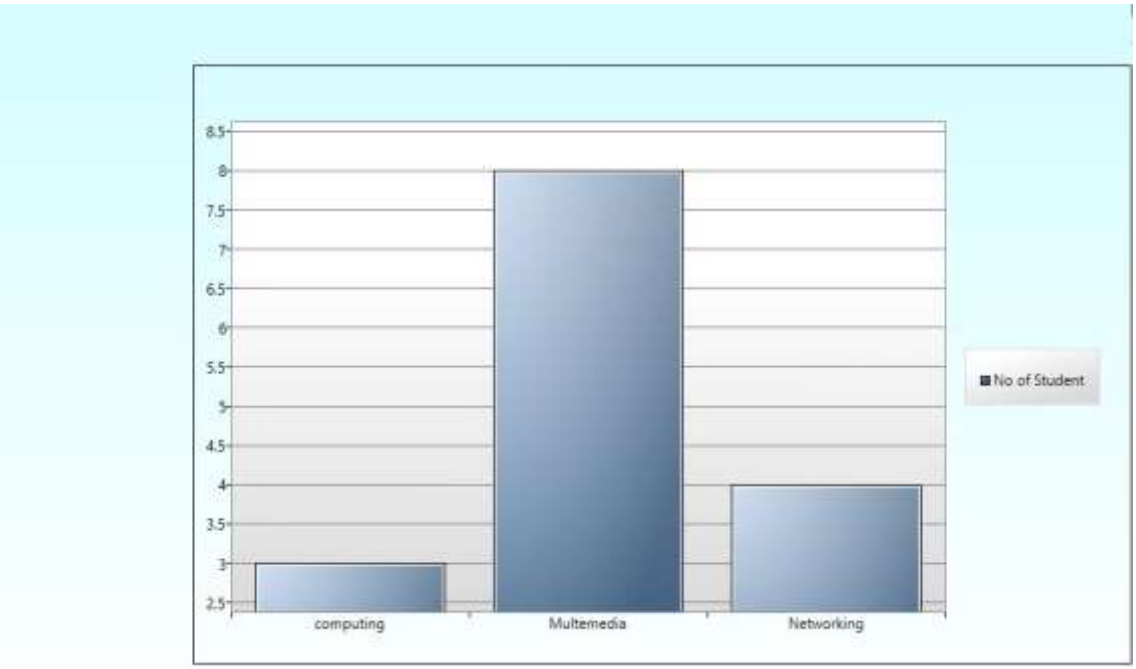


Figure 13: Weekly student registration chart

The chart above shows the student registration in a week.

Step 11: Weekly Report

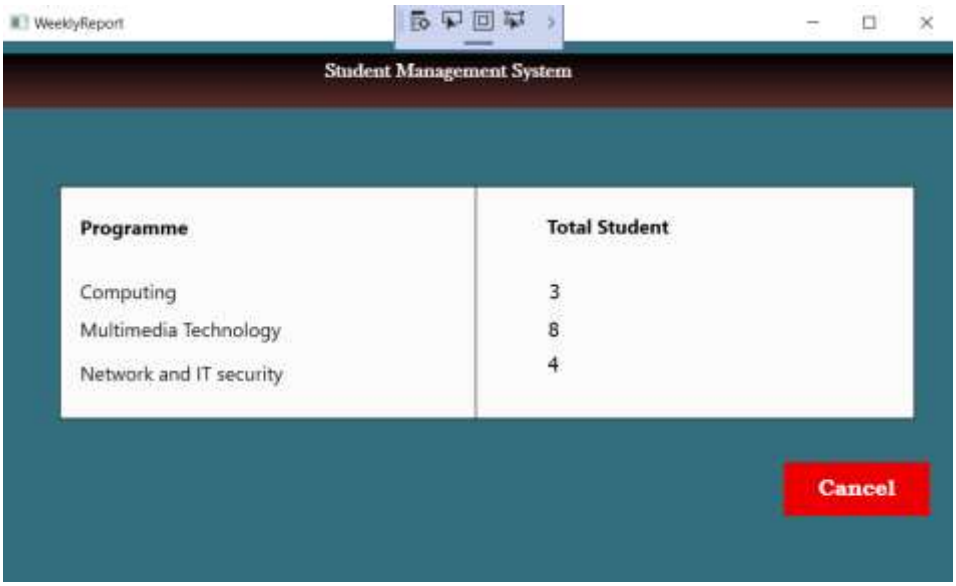


Figure 14: Weekly Report

Description of the Algorithm used

Bubble Sort is the simplest sorting algorithm that works by repeatedly swapping the adjacent elements if they are in wrong order. This sorting algorithm is comparison-based algorithm in which each pair of adjacent elements is compared and the elements are swapped if they are not in order. Bubble sort belongs to O (n2) sorting algorithms, which makes it quite inefficient with regard to sorting large data volumes. Bubble sort is stable and adaptive. (Myassignmenthelp, 2018)

Working of Bubble sort algorithm in the developed application:
Bubble sort takes O (n2) time so we're keeping it short and precise. Bubble sort starts with very first two student ID number, comparing them to check which one is greater. Next, we compare second with third. We find that second number is smaller than third number and these two values must be swapped. Next, we compare the third and fourth numbers. We find that both are in already sorted positions. Then we move to the next two numbers. We know then that 10 is smaller 35. Hence, they are not sorted. We swap these values. We find that we have reached the end of the array. To be precise, we are now showing how an array should look like after each iteration. Notice that after each iteration, at least one value moves at the end. And when there's no swap required; bubble sorts learn that an array is completely sorted.

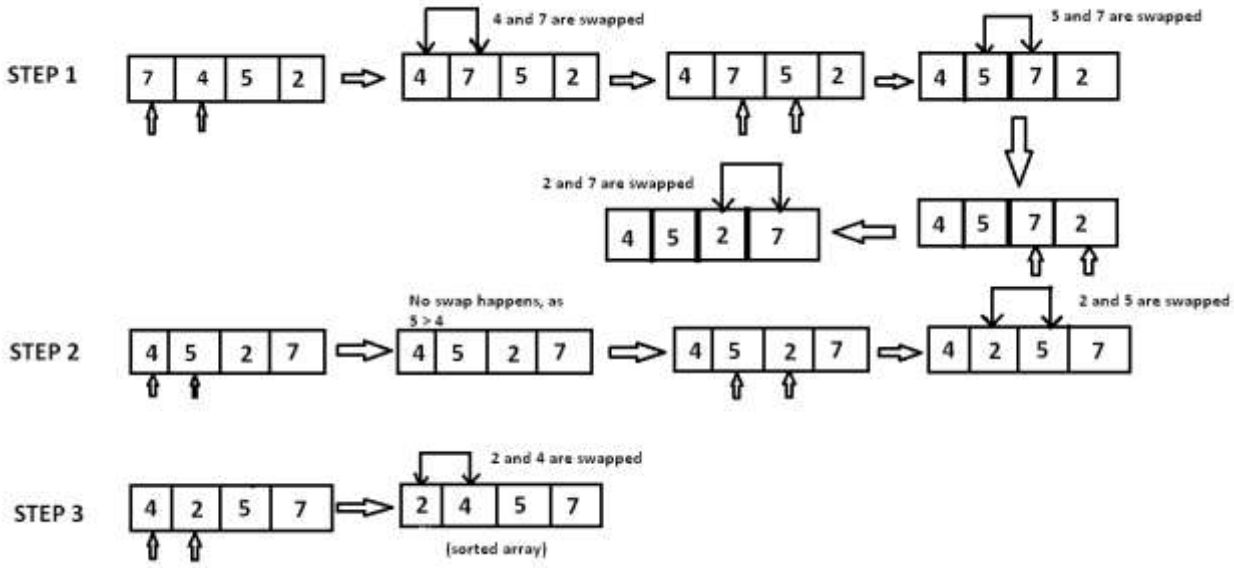
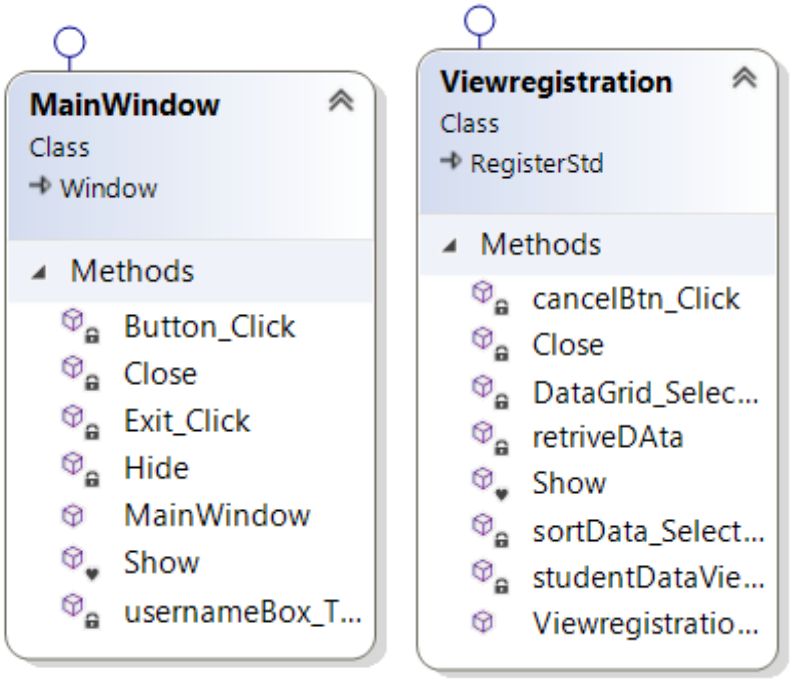


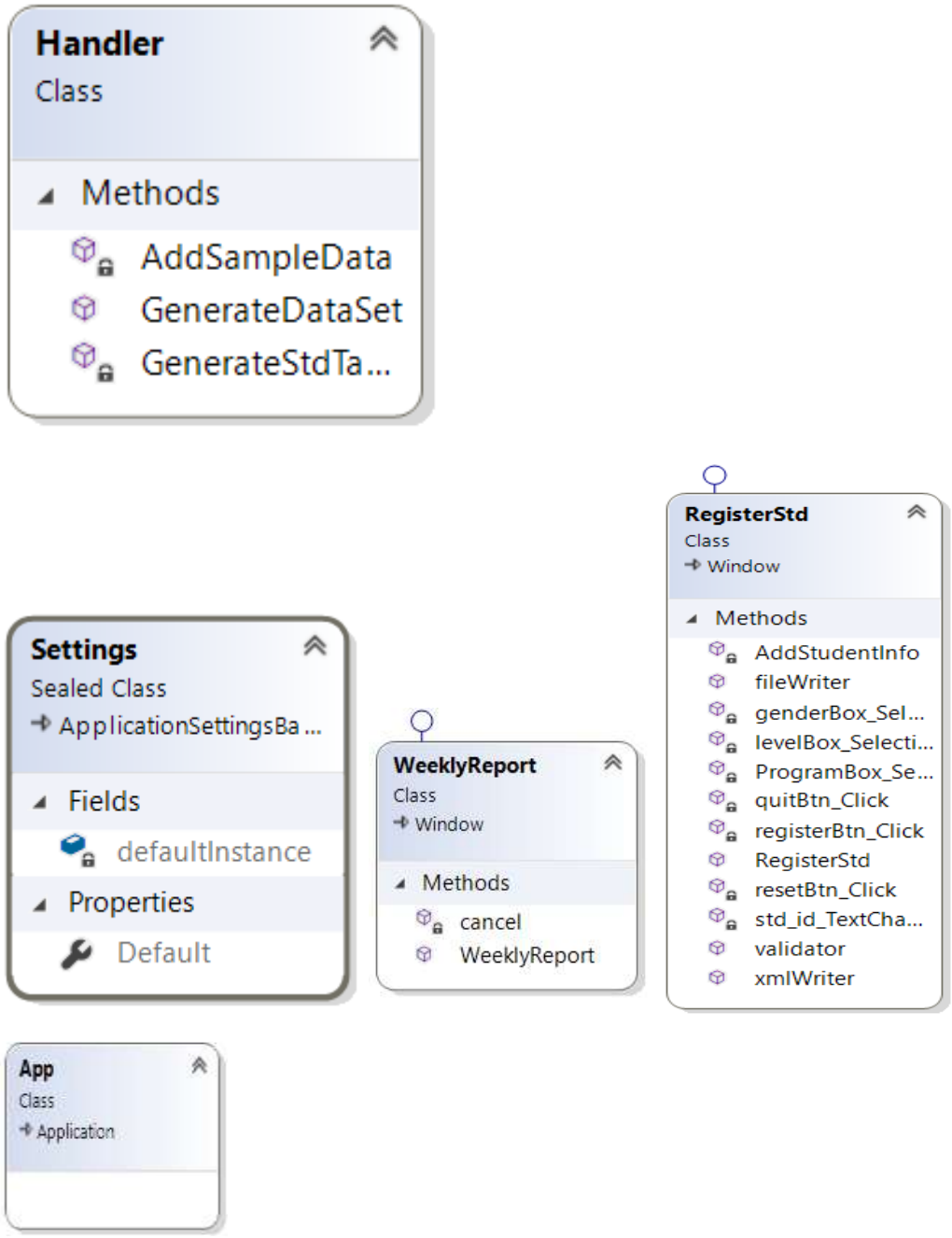
Figure 15: Bubble sort algorithm

Class Diagram

Figure 16: Class Diagram

Individual Class diagram




Handler
Class
Methods
AddSampleData
GenerateDataSet
GenerateStdTa...
RegisterStd
Class
Window
Methods
AddStudentInfo
fileWriter
genderBox_Sel...
levelBox_Selecti...
ProgramBox_Se...
quitBtn_Click
registerBtn_Click
RegisterStd
resetBtn_Click
std_id_TextCha...
validator
xmlWriter
Settings
Sealed Class
ApplicationSettingsBa...
Fields
defaultInstance
Properties
Default
WeeklyReport
Class
Window
Methods
cancel
WeeklyReport
App
Class
Application

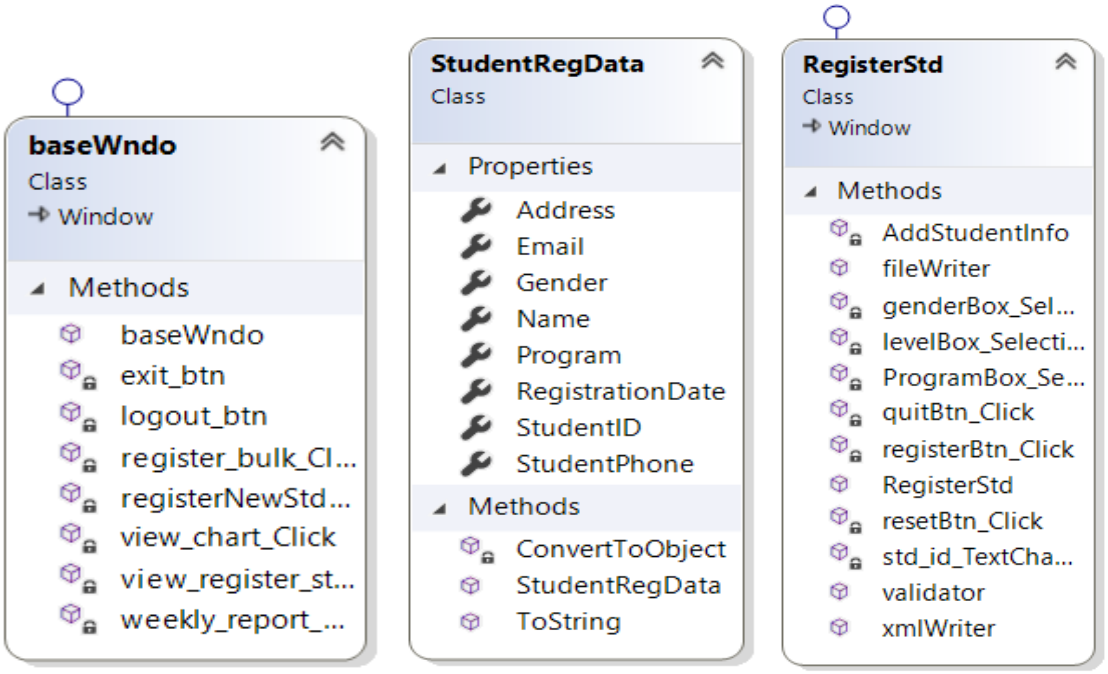


Figure 17: Individual class diagrams

Flowchart

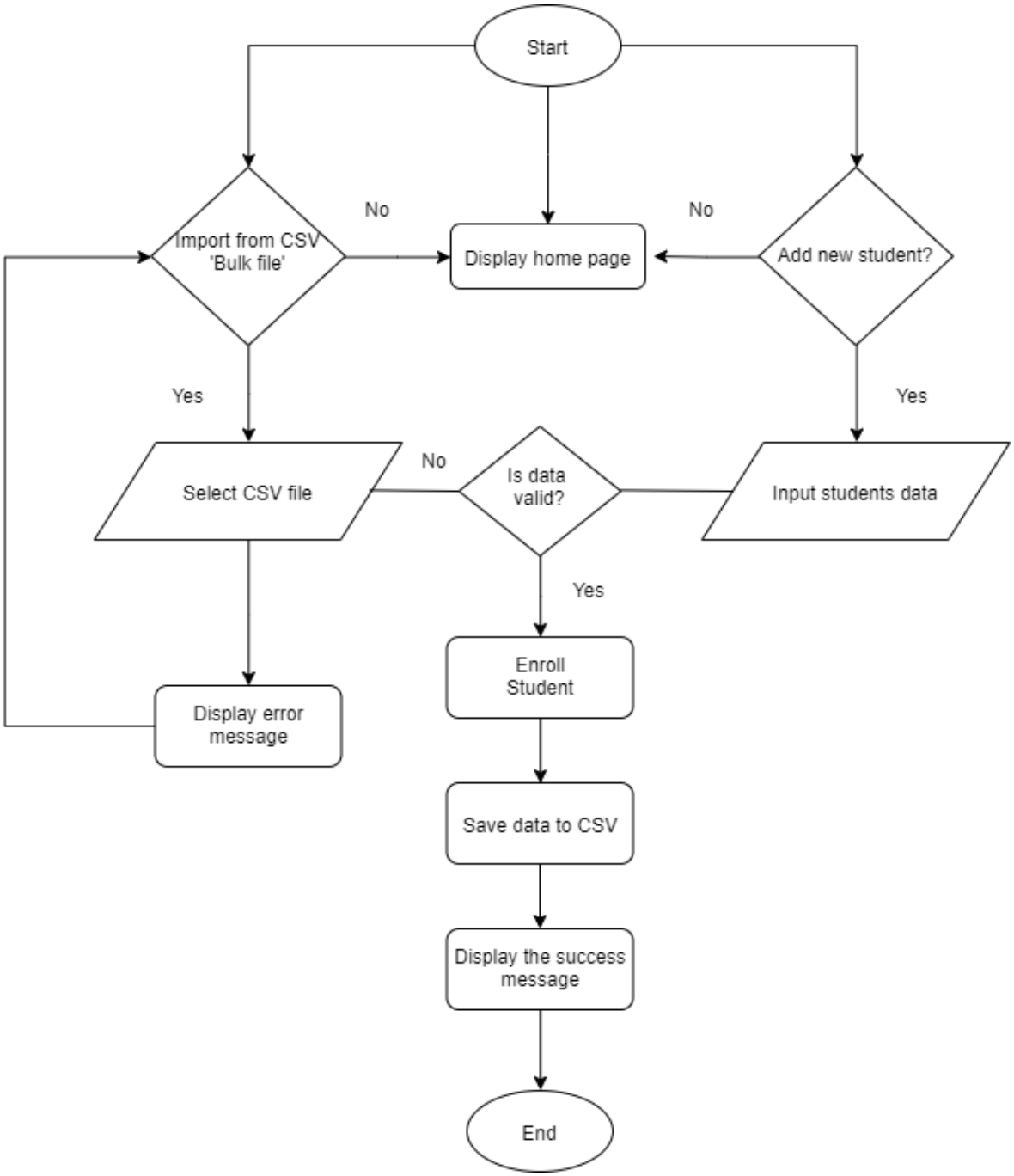


Figure 18: Flowchart

Reflection

Developing web application using ASP.net has also increased the knowledge on ASP.net framework. In this coursework, we have designed the web forms and the content forms which has increased our experience in design scope also. Most of the tasks were challenging. The major challenging tasks were to apply logics and algorithms for stock counts and generating sales reports. However, accepting those challenges, provided us with more experiences, skills and knowledge. Developing web-based software using WPF Application (.NET) in framework# language in Visual Studio is interesting and fun. During the development of this stock management and inventory system, we got chance to know more about .NET framework and Visual Studio environment. We have improved our knowledge and experience from role-based authentication to data validation while developing this system.

Visual Studio provides code suggestion and error suggestion features which saved our most of the time. Apart from this, there are many prebuilt classes, libraries and methods which made our work easier and faster. Using Visual Studio, we can do design with less effort and saves time to focus on functionality.

The coursework came to be much more helpful for our skills and knowledge. Now, we know how to use database, visual studio and how to connect database using ASP.net framework in C#. To conclude our experience and opinion, we would say that the given coursework has guided and helped us to develop industry standard web application.

Conclusion

This venture "Student Management System" was effectively finished. Each capacity required for the application was actualized and they all work impeccably. It was troublesome in light of the fact that it was our first time working in Visual Studio with C# platform. While doing this venture I completed a great deal of research, which was exceptionally valuable. I came to lean numerous new things. This was totally another undertaking to us. Nevertheless, without losing trusts I finished it in purposed time. I confronted numerous challenges while doing this undertaking in coding phrase. Structuring phrase was simple. We simply need to relocate the thing. While doing coding there were numerous bugs and blunder. Some time I used to misfortune my patient, I used to be baffle on the off chance that I cannot discover blunder in the code. I conquer each blunder one by one. I did online research to discover the solutions of certain errors. However, my module teacher and my colleagues helped me a lot to accomplish this task in time.

Bibliography

Myassignmenthelp. (2018, March 26). *Myassignmenthelp*. Retrieved from http://www.myassignmenthelp.net/bubble-sort-assignment-help

Note: XML file and .csv files are attached inside the bin folder inside the development Student_Management file (developed application).