Marking Scheme

Informatics College Pokhara

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Application Development
CS6004NI
Course Work 1

Submitted By: **Ashmita G.C.**
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	data types not taken care of and not properly executed functionally.
Data Validation	Only basic 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	very poorly explained.
Flow chart, algoriathms and data sctructures used	very poorly explained and no 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:	**F1**	**F1**

Overall Comment:

Code should be self explainable with less comments. Need some proper naming of the componer and require to add comments on required area. Could not explain the code. System is not usable.

Initiated and trying to make the application workable.

Informatics College Pokhara

Application Development

CS6004NP

Coursework 1

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Date: 10-Jan-2020

Submitted To:
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1. Introduction

In this project we need to design and implement Student Information System in C# - desktop application for a company where the application should keep track of the student's details, program enrol and registration date. 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. System must include detail like Name, address, contact no, email, program enrol, registration date and daily wage amount of the employee.

The proposed system is developed using C# - desktop application. C# is a strongly typed object-oriented programming language. It is open source, simple, modern, flexible, and versatile language. C# supports Web, Mobile, and app development needs[CITATION Mah18 \l 1033]. The function which should be included in this application are:

- To import a record from a text file (.CSV format).
- To generate and display two different reports, listing the students detail like id, name, program enrol and registration date:
  (a) sorted by student first name
  (b) sorted by registration date.
- To display weekly tabular report showing total number of students enrolled in each program offered by the institution.
- To display chart showing total number of student on each program.

Current Scenario

There are many schools who keep student's record in old traditional system which is Paper-Based System (record in register) which are unsafe and risky to maintain it for long period of time. Using the traditional method, the daily report and weekly report are also difficult to generate.

Proposed System

The proposed system is digitized system which is specially designed to overcome problem mentioned above. . The main objective of the developed system is to keep track of the student information, generate weekly report,

can sort visitors by the time duration of the visit. The system ensures secure with the presence of login section. Entry of data and display of data have been made easy with the presence of easy user-interface.

2. User Manual

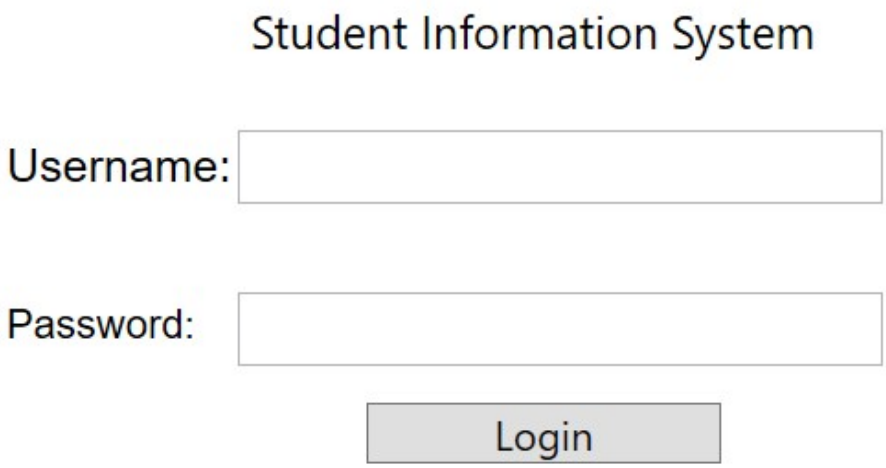

Figure 1: Login Screen

The username and password for this system is Admin and Admin respectively. If wrong username and password is entered it will display a error message as shown below:

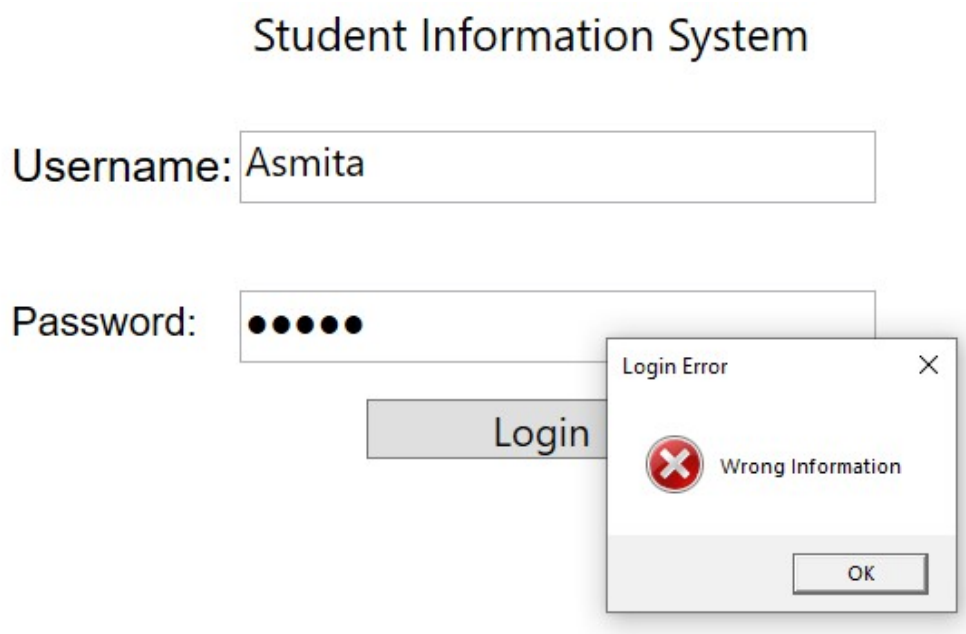

Figure 2: Error message appears when username and password is wrong.

After successful login the main screen of the system appears.

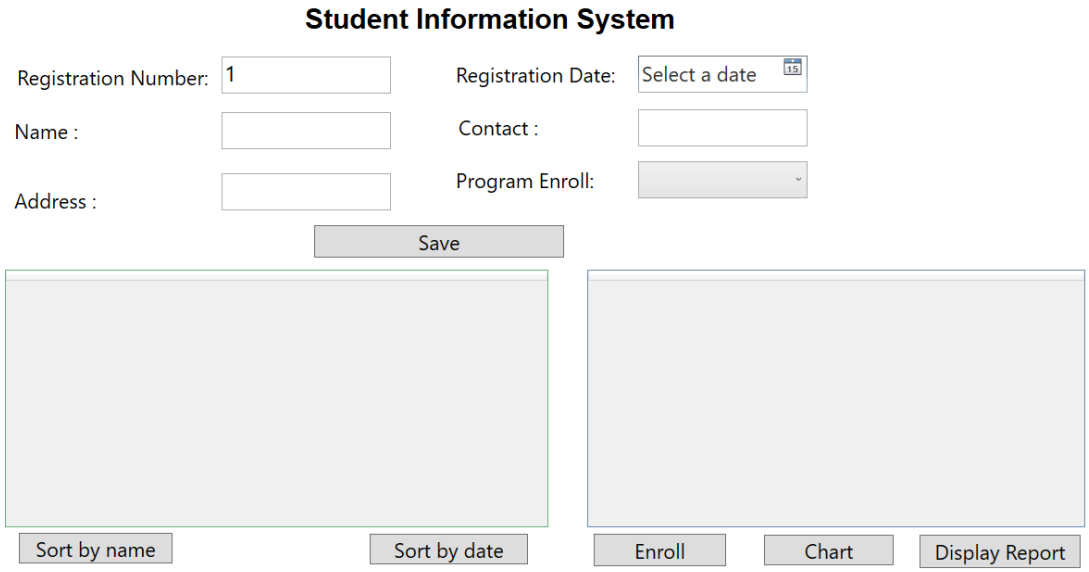

Figure 3: Home page of the system

This is the home page of the system. Student must enter name, address, registration date, contact and program enrol to register themselves. In the left side gridtable the list of student will be shown whereas in the right side weekly tabular report showing total number of students enrolled so far in each program offered by the institution will be shown.

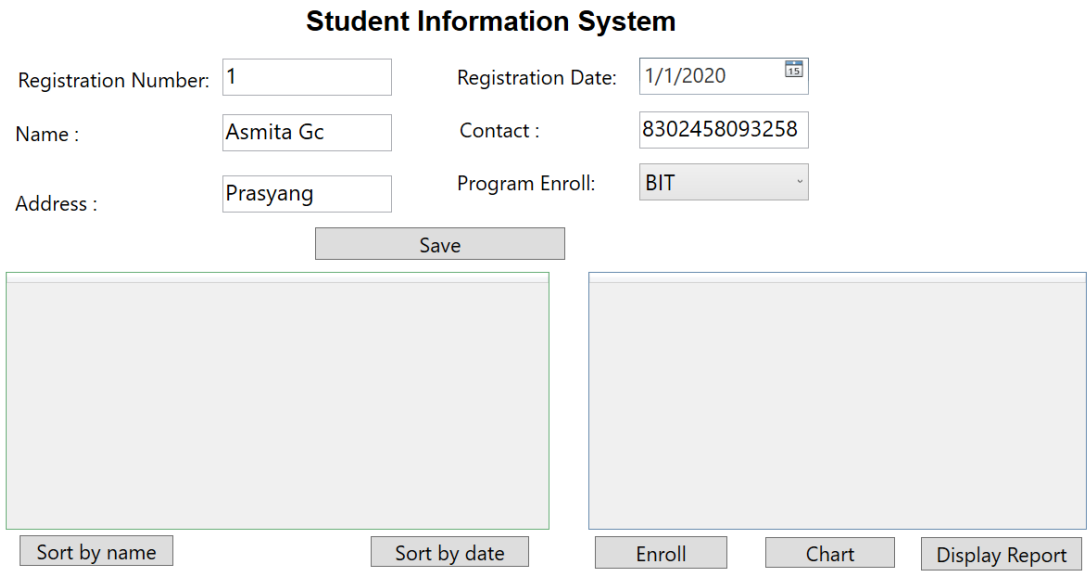

Figure 4: Filling the required value

Above figure shows the information added by the student.

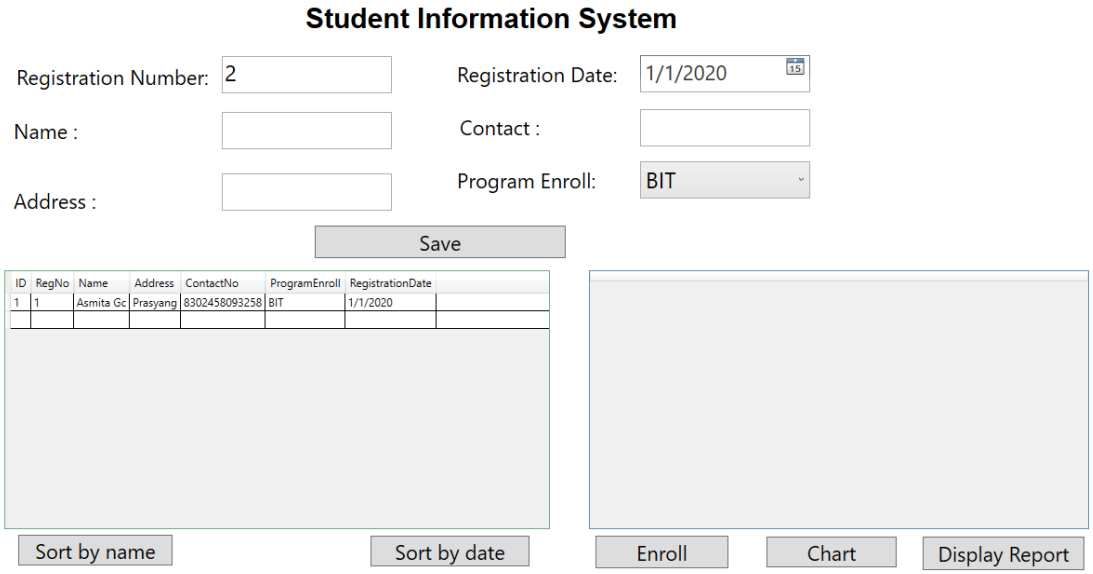

Figure 5: Value added

After adding the information by the student then it will be shown in the table as show in above diagram.

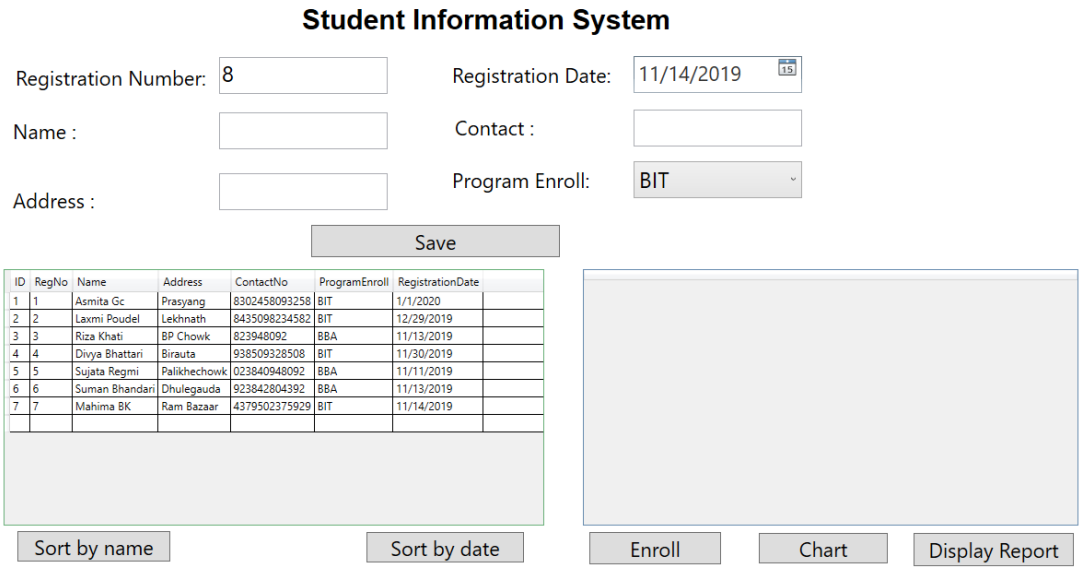

Figure 6: List of data

These are the list of student's data.

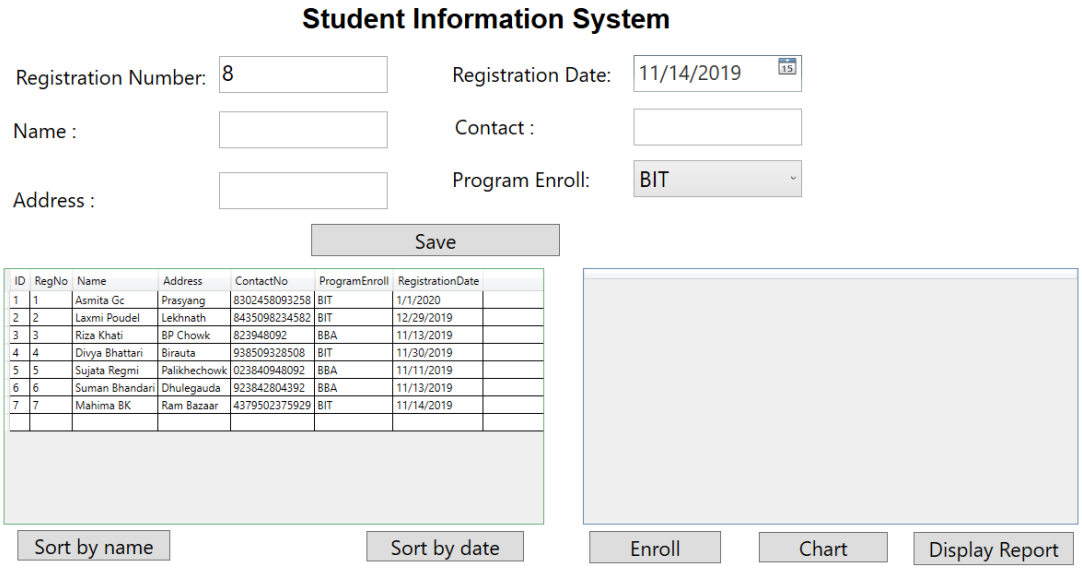

Figure 7: Sorting by name

Previously added data was not sorted. The above figure show the list of data which is sorted according to their name. Bubble sorting was used to make it which is described in below in another section.

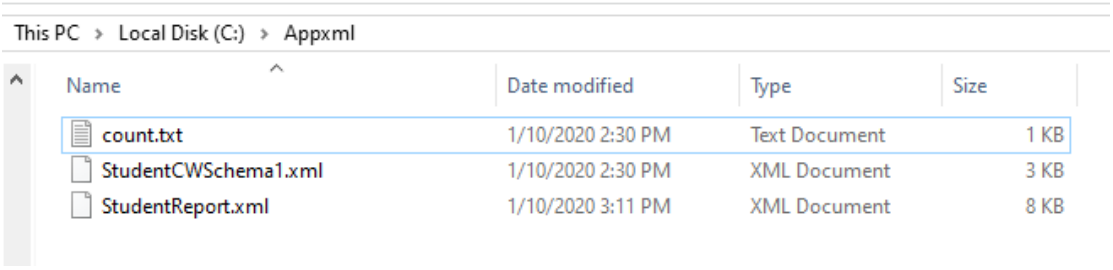

Figure 8: xml files created in local disk C

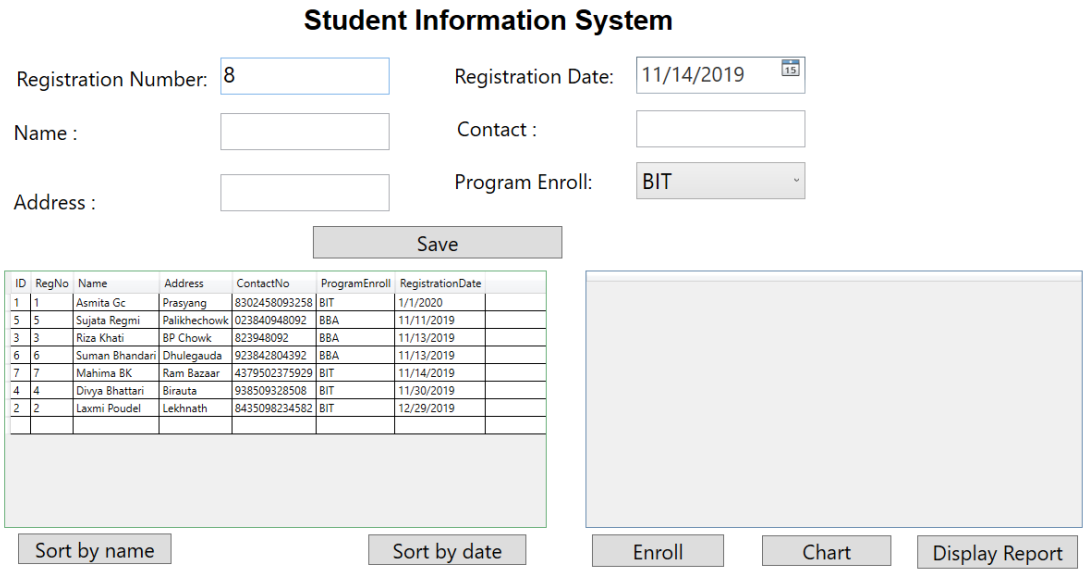

Figure 9: Sorting by date

Above figure shows the list of student data which is sorted according to the date in ascending order.

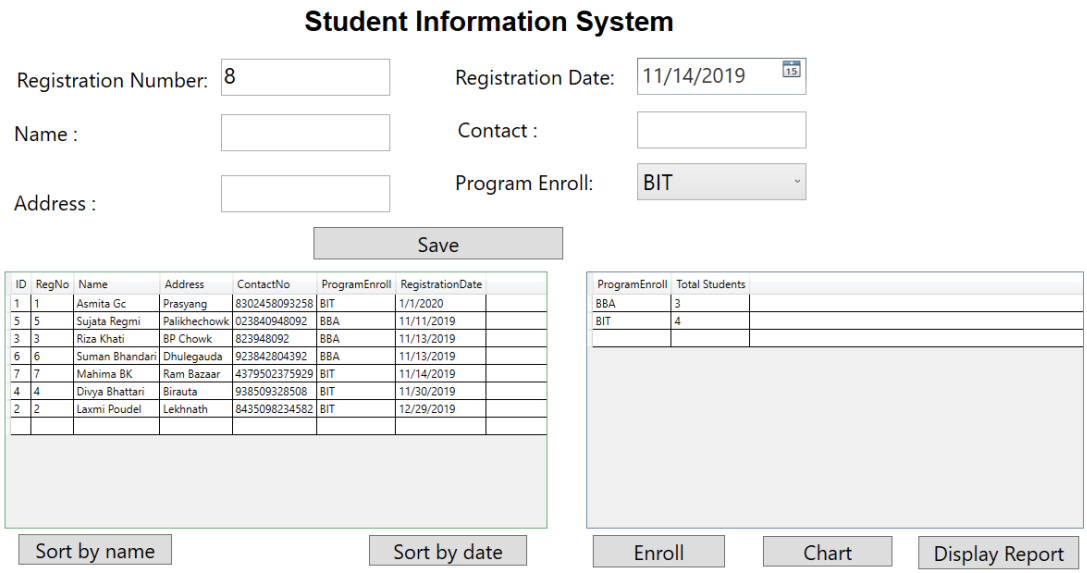

Figure 10: Tabular report showing total number of student enrolled in each program

In the right side of the table there is program enrol and total number of student offered by the institution.

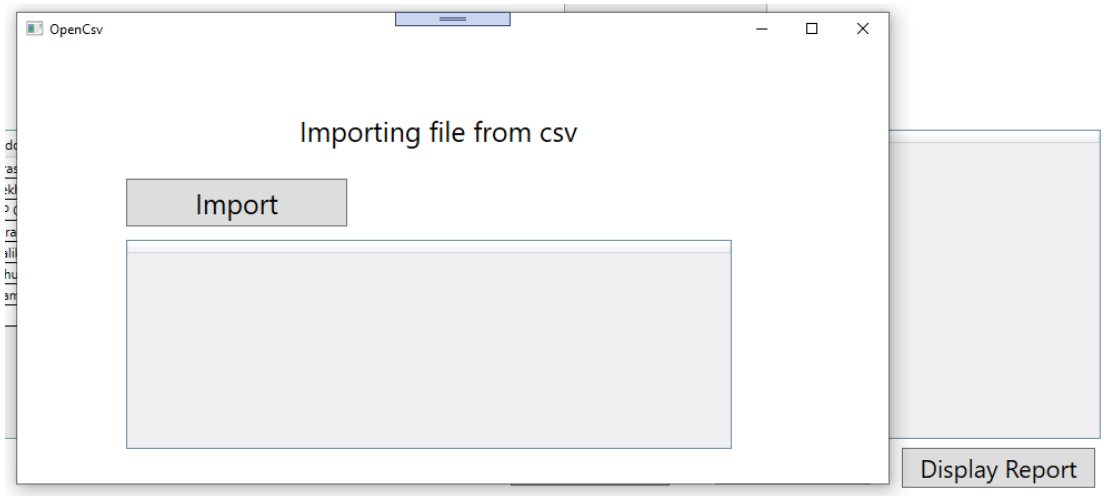

Figure 11: page for displaying csv file

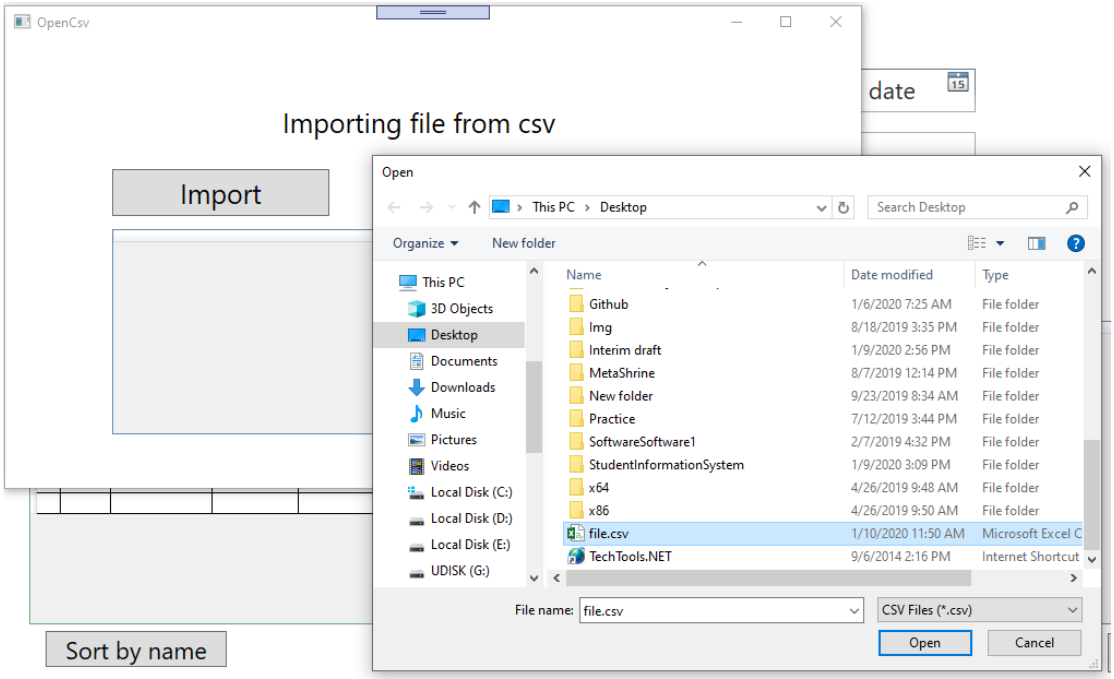

Figure 12: Selecting the file

1	1001	Shreesti Adhakari	Kathmandu	938092580832	BBA	11/1/2020	
2	1002	Swornima Thakuri	Surkhet	9725789579283	BIT	1/12/2019	
3	1003	Sarswati Upadyaya	Chatara	938503058394	BBA	9/1/2020	
4	1004	Sam Gurung	Pokhara	9806578023	BBA	11/11/2019	

Figure 13:Data added from csv file

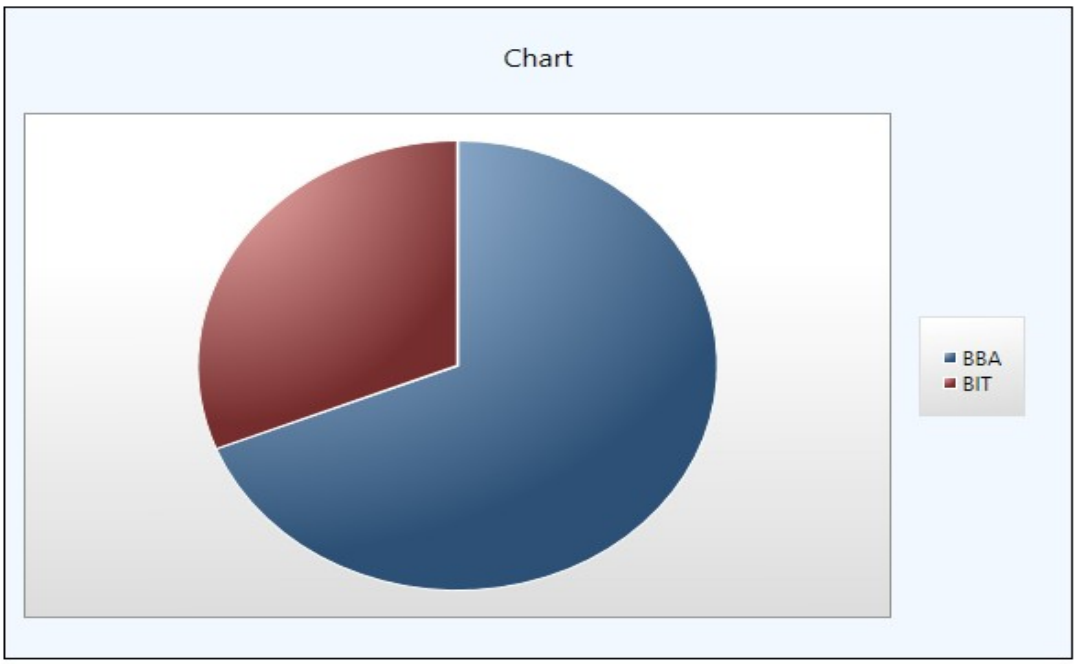

Figure 14: chart showing total number of student on each program

3. Journal Article

- In this investigation, System fulfilment review is done and factor examination and relapse tests are applied to decipher the gathered information. The outcomes show that lone Information Quality has direct impact on fulfilment. At that point the effect of basic leadership as a go between factor on framework fulfilment is estimated and the outcomes uncover that System Quality and Information Quality has aberrant huge impact though Information Presentation doesn't have direct nor roundabout impact on framework fulfilment. Understudy Information System is one of the key frameworks for encouraging the administration and improvement of Higher Education Institutions. Its utilization for scholastic basic leadership purposes just as other scholarly assignments is vital. Accordingly, this paper expects to comprehend the effect of System Quality, Information Quality and Information Presentation on Student Information System fulfilment of scholastic and regulatory staff
  [CITATION Imp \l 1033].
- Changes in Information Technology (IT) enable schools to use databases and applications along these lines, making the getting to of records brought together. The Student Information System(SIS) would be another method for record the executives and exchange preparing that would accomplish proficiency on handling understudy data. It would be an extraordinary assistance to the managerial work force, scholarly staff or partners and understudies in refreshing, recovering and producing understudy information. The created android application will be utilized by instructors, understudies, guardians and the head who keeps up the framework. this application will computerize the manual understudy data upkeep process in universities. It will likewise diminish the measure of desk work done and time put resources into manual procedure by the instructors[CITATION AnA \l 1033].
- This paper proposes a data encryption method based on and improved AES algorithm for the data security transmission. This student information management system is designed to implement student

information identification and management based on fingerprint identification [CITATION Hin \l 1033].

4. Bubble sort algorithm

Bubble sort algorithm is one of the most basic and simple algorithms. it is very easy to implement. A bubble sort takes in an unsorted list and keeps comparing each element with its right side neighbour in order to sort the data. Whichever element is smaller gets shifted to the left. After completion of one

round, the largest number ends up in its correct position. In other words, the largest number bubbles to the top or right in this case. Then, the process is repeated again and again until all of the data is sorted. Let us see an example to understand this better.

a = [6,8,1,3,0,5]

Round 1:

1. 6<8 (no swap) - [6,8,1,3,0,5]
2. 8>1 (swap) - [6,1,8,3,0,5]
3. 8>3 (swap) - [6,1,3,8,0,5]
4. 8>0 (swap) - [6,1,3,0,8,5]
5. 8>5 (swap) - [6,1,3,0,5,8]

Note: 8 is in its correct place

Round 2:

1. 6>1 (swap) - [1,6,3,0,5,8]
2. 6>3(swap) - [1,3,6,0,5,8]
3. 6>0(swap) - [1,3,0,6,8]
4. 6<8 (no swap) - [1,3,0,6,8] -- not needed

Note: 6 is in its correct place

Round 3:

1. 1<3 (no swap) - [1,3,0,6,8]
2. 3>0 (swap) - [1,0,3,6,8]
3. 3<6 (no swap) - [1,0,3,6,8]
4. 6<8 (no swap) - [1,0,3,6,8] -- not needed

Note: 3 is in its correct place

Round 4:

1. 1>0 (swap) - [0,1,3,6,8]
2. 1<3 (no swap) - [0,1,3,6,8]
3. 3<6 (no swap) - [0,1,3,6,8] -- not needed
4. 6<8 (no swap) - [0,1,3,6,8] -- not needed

Note: 1 is in its correct place

Round 5:

1. 0<1 (no swap) - [0,1,3,6,8]
2. 1<3 (no swap) - [0,1,3,6,8]-- not needed
3. 3<6 (no swap) - [0,1,3,6,8]-- not needed
4. 6<8 (no swap) - [0,1,3,6,8]-- not needed

Note: 0 is in its correct place. Even though 0 was in its correct place in round 4, our algorithm does not understand that until the process is complete [CITATION Pyt \l 1033].

5. System Architecture

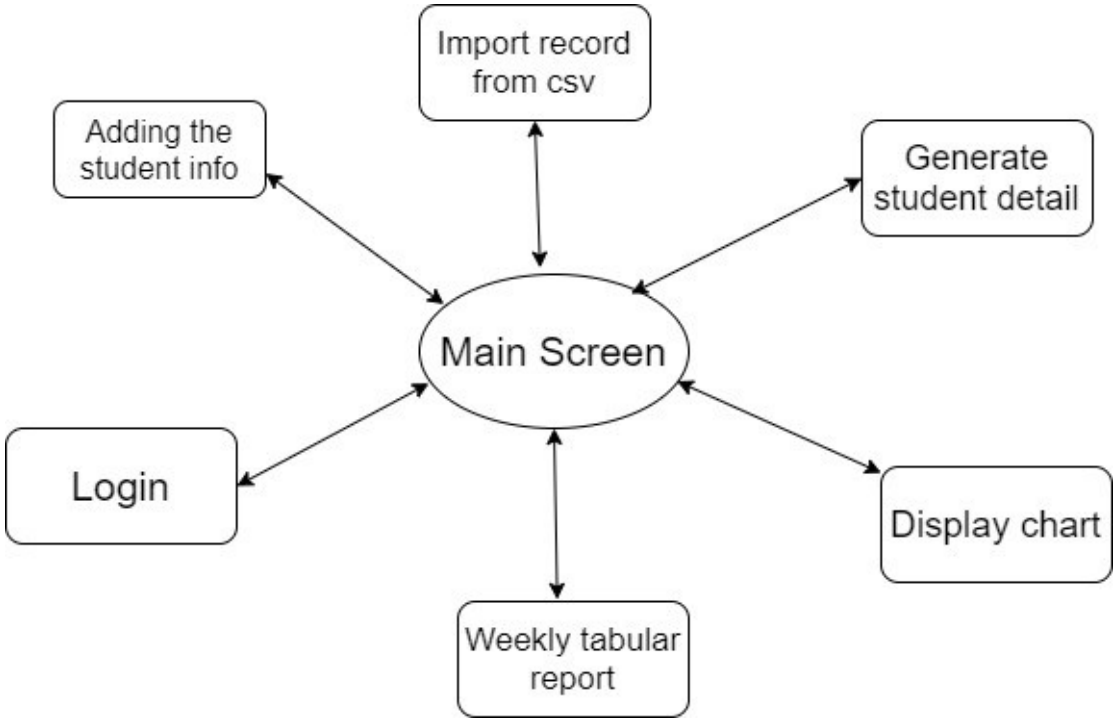

Figure 15: Architecture Diagram

The above figure represents the architecture of the developed system. At first, user needs to login to the system for which the user needs to input the correct credentials. After logging into the system with correct credentials, the system will display the main form which is the main panel of the developed system.

✓ Class Diagram

Figure 16: Class Diagram generated by visual studio

This is the class diagram generate by visual studio.

✓ Individual Diagram

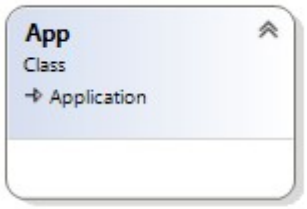

Figure 17: App class

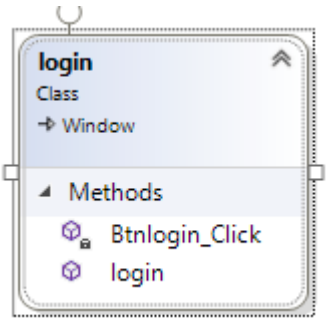

Figure 18: Login class

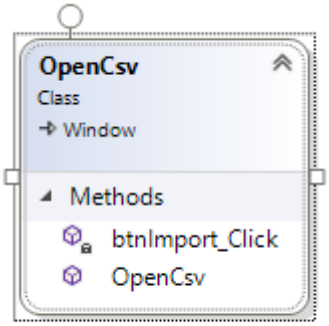

Figure 19: OpenCsv class

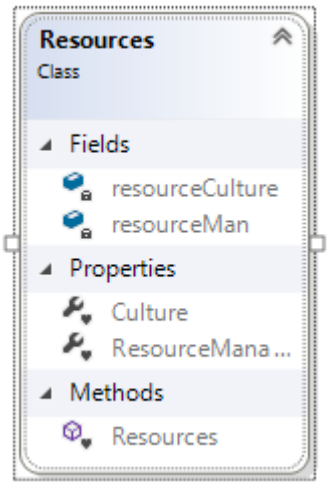

Figure 20: Resources class

✓ Flowchart

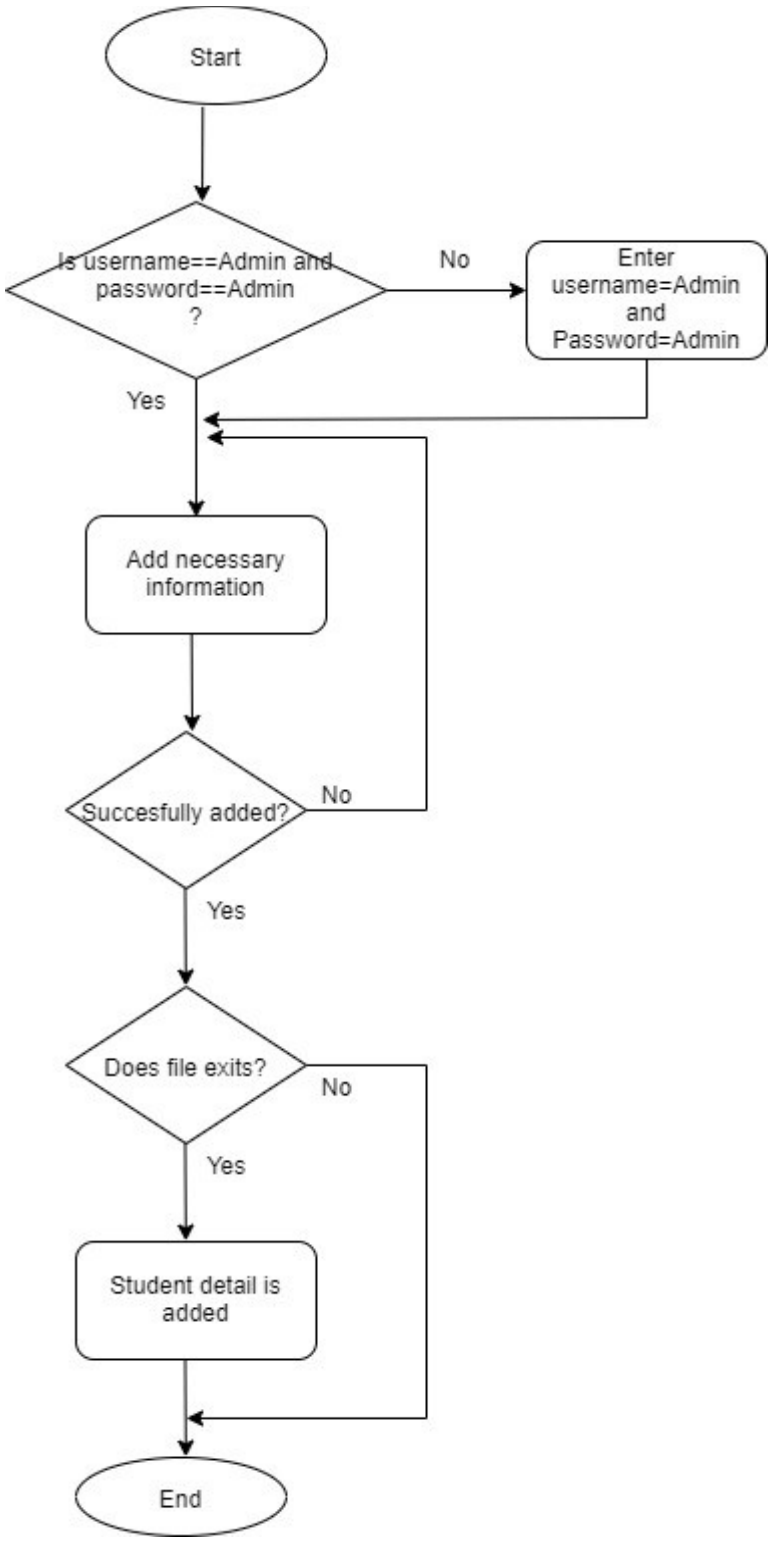

Figure 21: Flowchart

- ✓ Algorithm

Step 1: Start

Step 2: Is username and password correct?

If yes then go to step 3,

If no then go to input username=”Admin” and password=”Admin” then go to step 3

Step 3: Add the detail of the student.

Step 4:If the detail of the student is successfully added then go to step 4 else

Go to step 3

Step 5: If the file is exits then student detail is successfully added else the detail are not added.

Step 6: End

6. Reflection

The developed system is Student Information System which was developed using Visual Studio in C# - desktop application. This application keeps track of the student's details, program enrols and registration date. 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. System must include detail like Name, address, contact no, email, program enrol, registration date and daily wage amount of the employee.

Working on the Visual Studio is new experience for me. I got to know many more thing about the desktop application. The most complex part I found was to make the chart to display total number of student on each program. I also spend more time to import a record from csv file as I had to tackle with several errors. Making this application flourish the knowledge on making the desktop application. Overall evaluation with the great support of friends and I teacher had a great experience with the Application Development of the Museum.

7. Conclusion

The main objective of this coursework is to make the student information system where student should input the their personal detail including registration date so that a system can generate a weekly enrolment report of the student. System included detail like Name, address, contact no, email, program enrol, registration date and daily wage amount of the employee.

The Coursework was not solvable with just the lectures provided by our teachers. I had to do many research to know about the things I was confused about. I felt research was very important for an IT student. While doing this coursework, I had a lot of problems and as a guide I took the help from reliable website, related videos and also from our module teacher. This project gave student like us the opportunity to try our new skills in practice. Also, I want to specify that I am glad that I had completed our coursework in great way. I would like to thank all the teachers and friends who helped me throughout the project.

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