Marking Scheme

Informatics College Pokhara

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Application Development

CS6004NI

Course Work 1

Submitted By: **Bishal Dhital**
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	any one component is missing or inappropriate data is shown
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.

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 poorly written code and no comments at all
System Usability	very poorly developed application

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.

System seems working with minor bugs and some missing functionality but can explain his task.

Informatics College Pokhara

Application Development

CS6004NP

Coursework 1

Submitted By:

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Group: L3C1

Date: 10th-Jan-2020

Submitted To:

Mr. Ishwor Sapkota

Application Development

Contents

1. Introduction

We have designed the Student Informatics System which takes the Student details as input and saves that in the table so that later on we can retrieve data from it as well as use it in other tables. Also we can sort the vale according to the Registration and Student Name which will be helpful to make table more useful and easier to navigate.

Other more additional features are in the program:

Current.Scenario

We have many Student management system currently in the market which are quite traditional and hard to use. They were made with old code and are bulky hard to use and navigate.

Proposed.System

We are providing a new Student Management System so that we can hopefully solve all the existing problems that are in the old system. We are planning to make it more flexible and easier to use to all the people.

2. User Manual

Below are provided screen shot along with some description so that user can have a knowledge on how the system works.

2.1. Login Screen

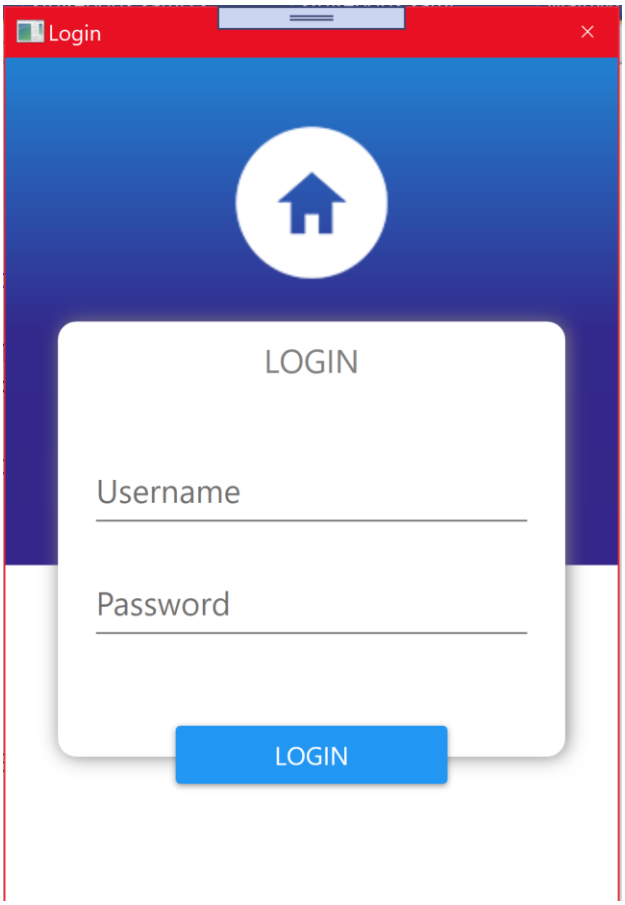


Figure 1: Login Screen

When first user enters into the system, he or she has to enter user name and password which are “admin” and “admin” by default respectively.

2.2. Dashboard

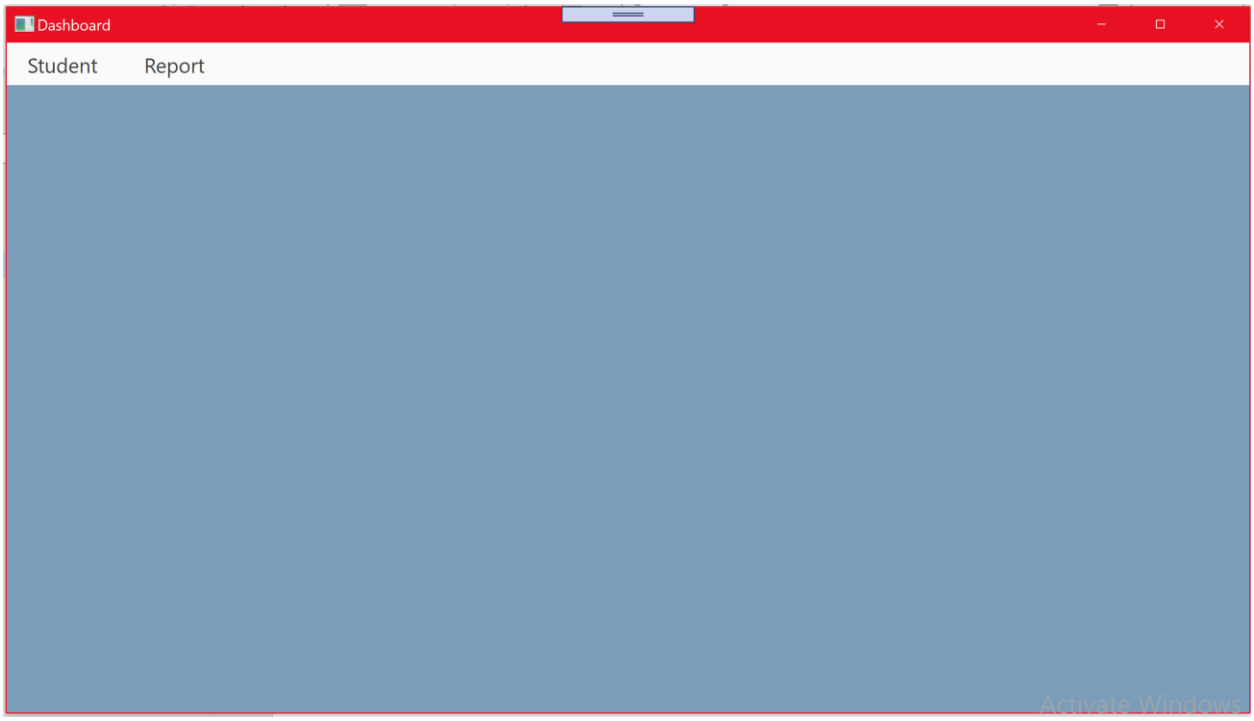


Figure 2: Dashboard

After successful login user will see the main screen.

2.3. Add Student Details Screen

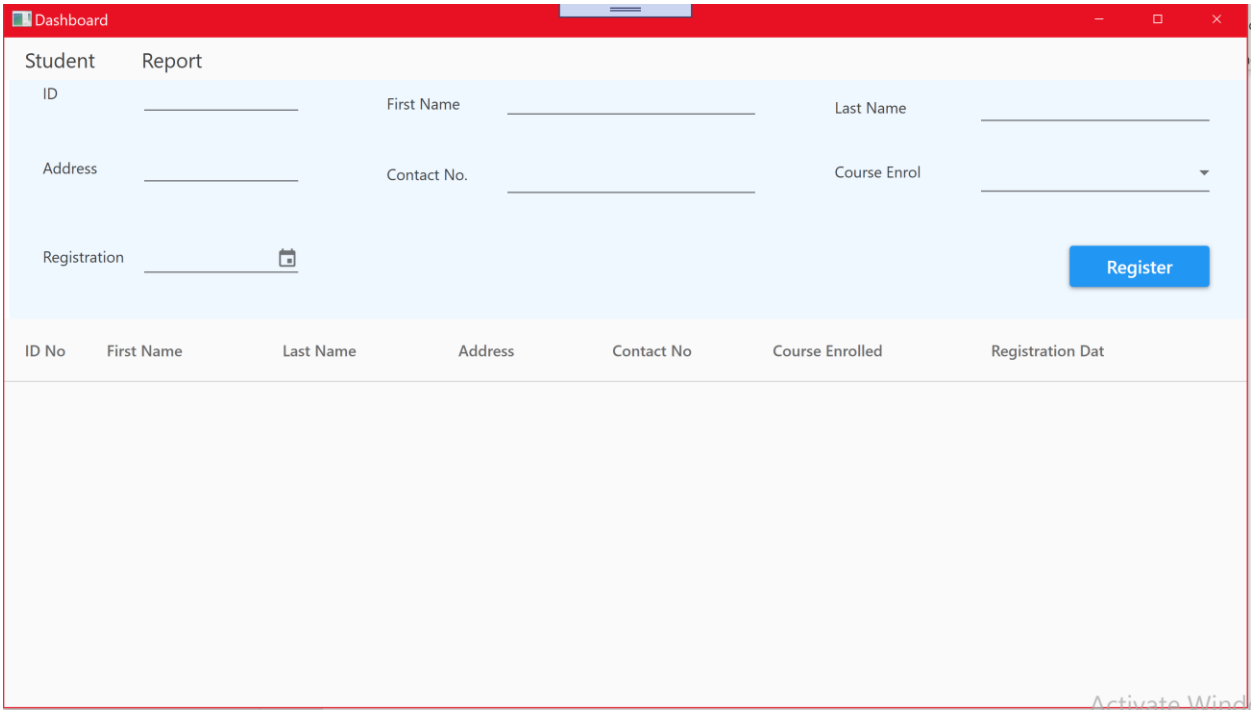


Figure 3: Add Student Details Screen 1

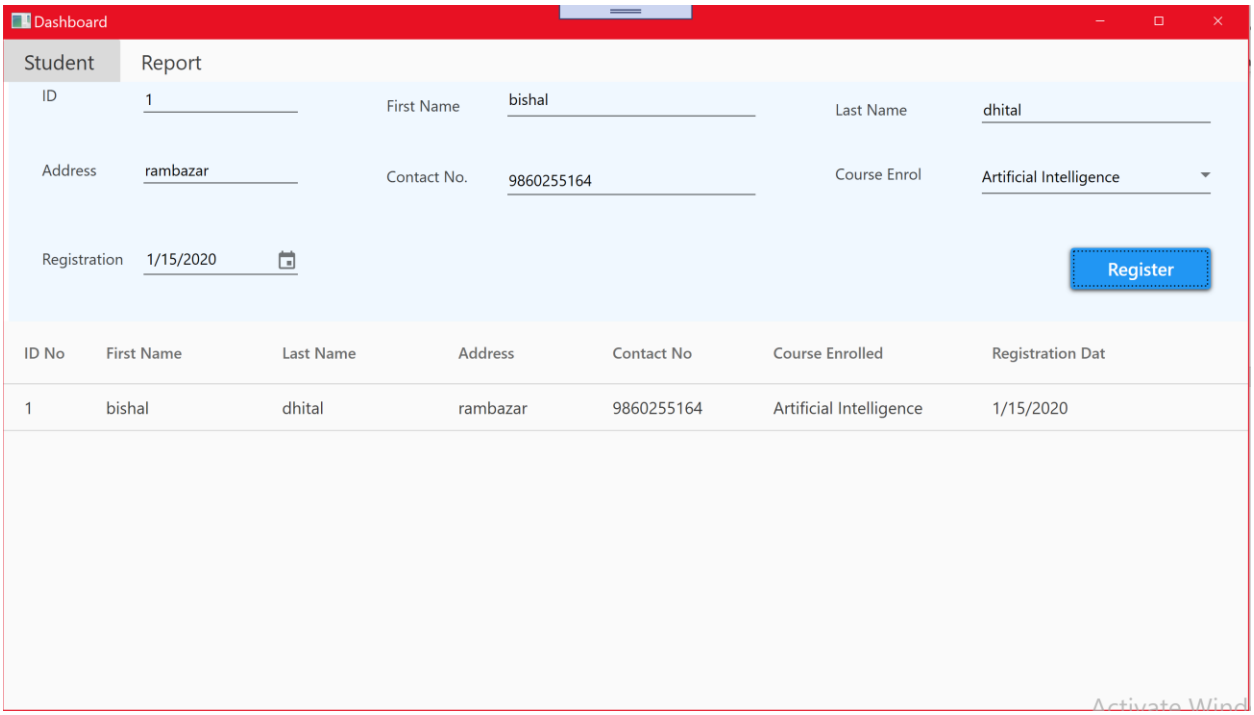


Figure 4: Add Student Details

People can add student data to enroll the student in the table with the help of the student info that can be found in the menu tab.

2.4. Data Serialize and Added to Screen

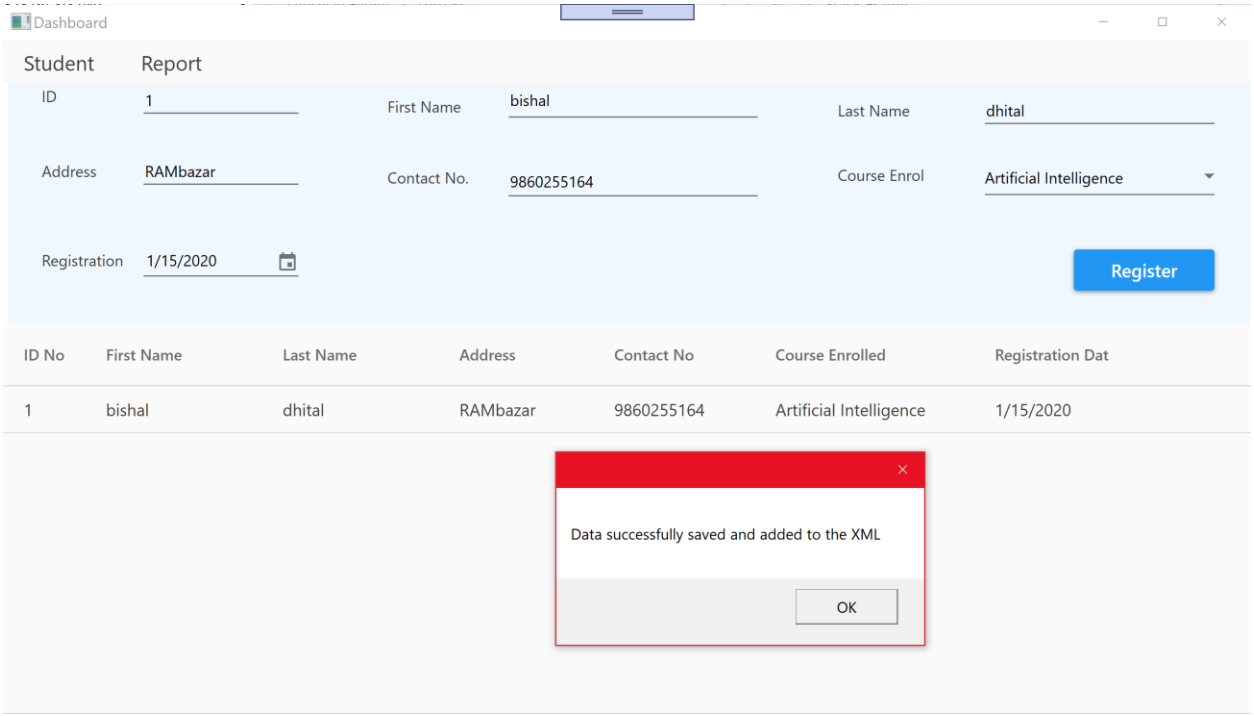


Figure 5: Data Serialize and Added to Screen

We can serialize that data or save the data in the csv file with the help of save button in the field.

2.5. Deserialization of Data

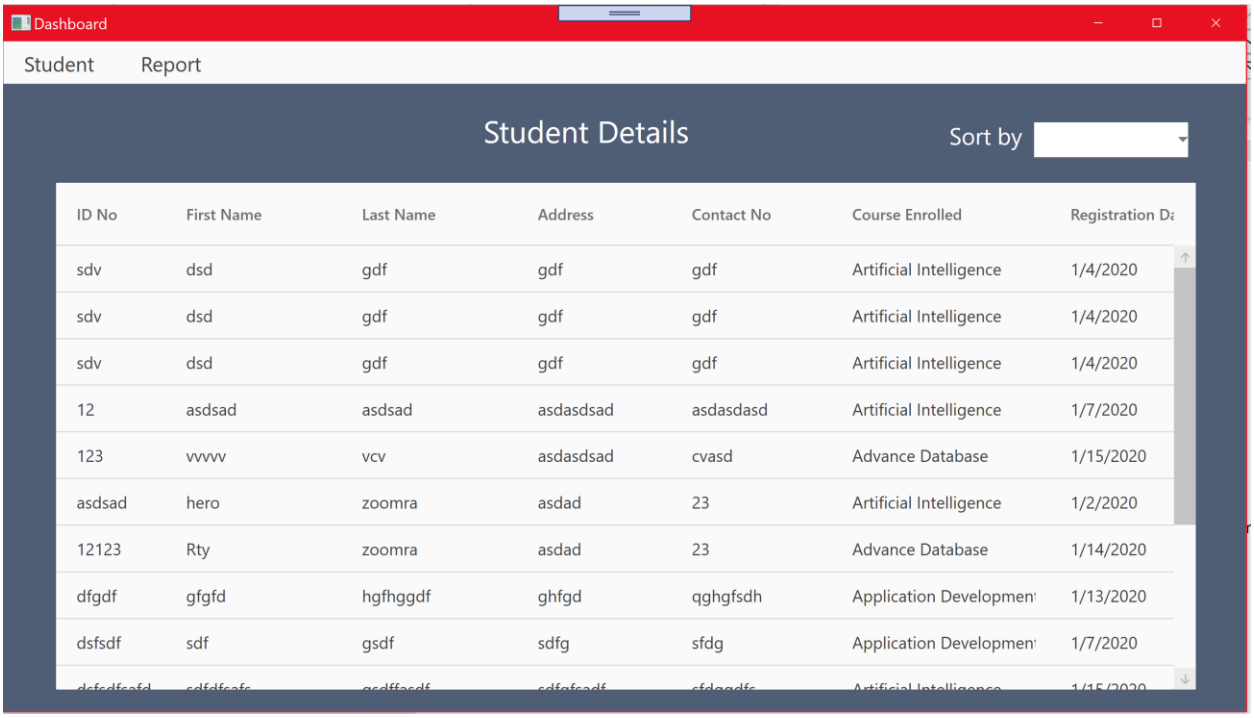


Figure 6: Deserialization of Data

We can also deserialize the data with the help of import function that can be found in the Student Details.

Many error handling is taken place in the data field to ensure only valid data can be passed in the system for example if we try to enter string in the contact number field it will display an error.

2.6. Data Sorting

A sorting option is available in the menu of the system so that people can sort them in their desired order. Right now it only has 2 basic sorting option available.

2.6.1. Sorting By name

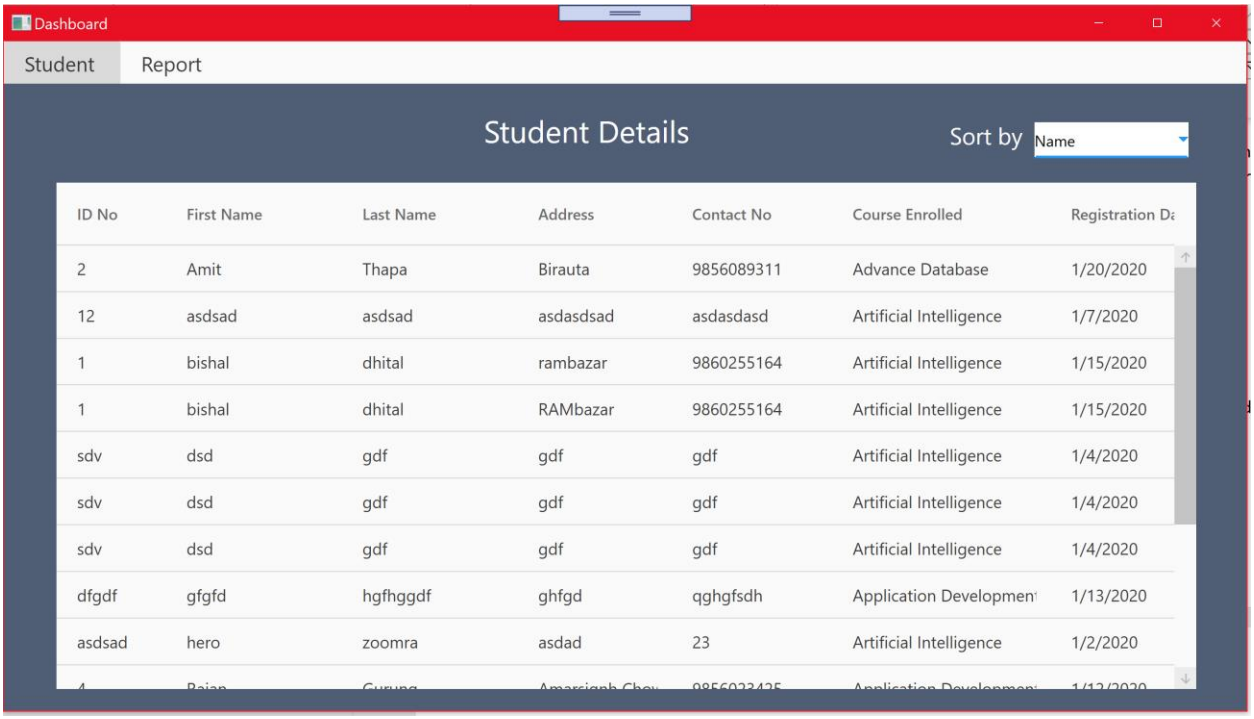


Figure 7: Sort Data by Name

2.6.2. Sorting by Registered Date

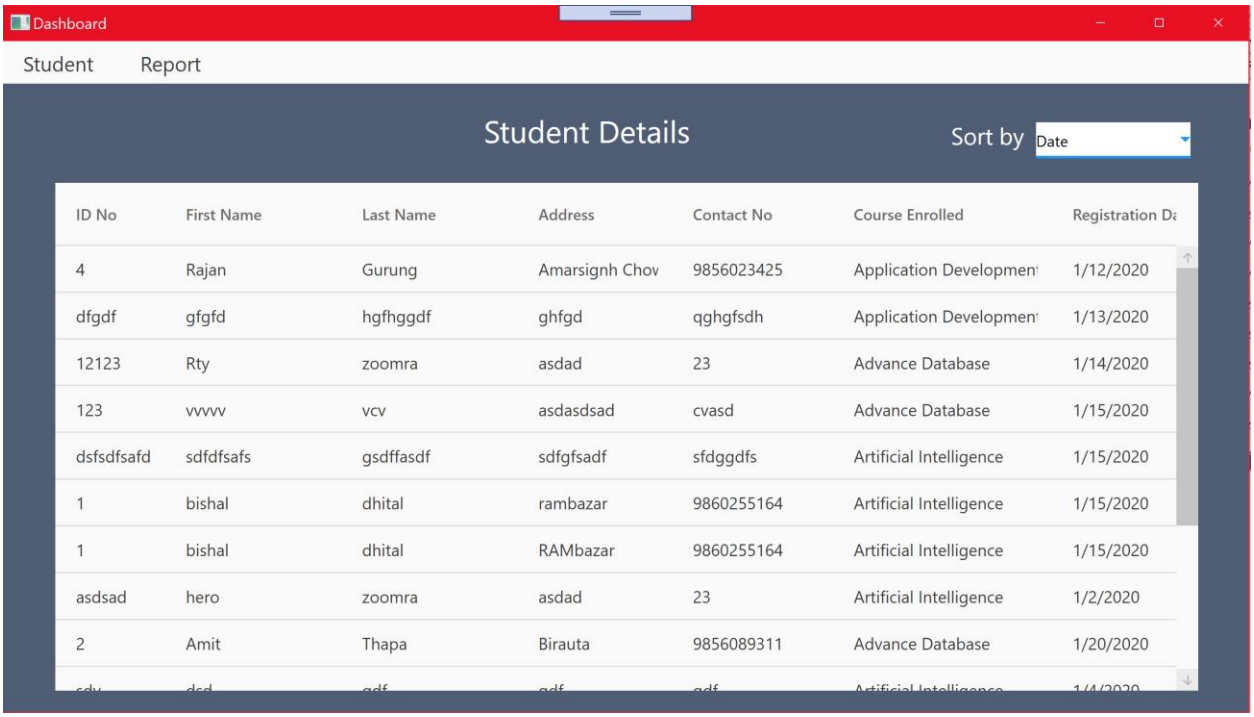


Figure 8: Sorting Data by Date

2.7. Error Handling

Many other error handlings is taken is in place so that people can only enter valid data such as:

2.7.1. No textfield can be empty

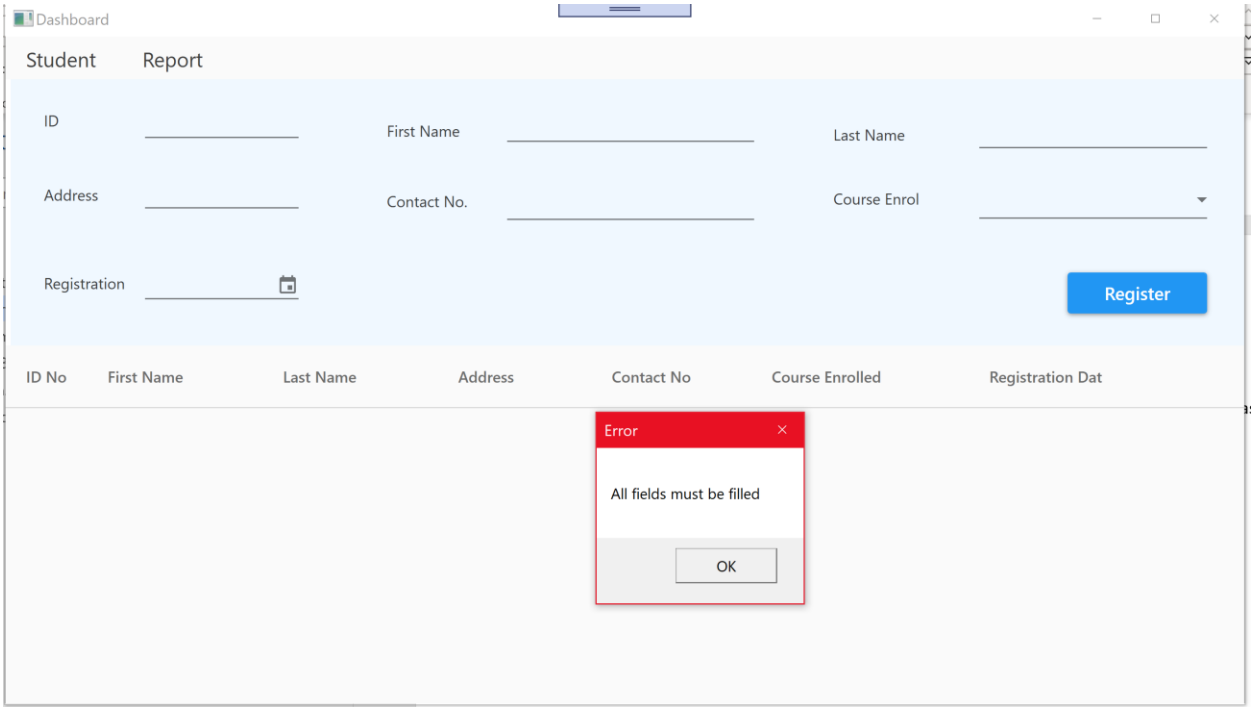


Figure 9:No Textfield can be Empty

2.8. Data Grid View

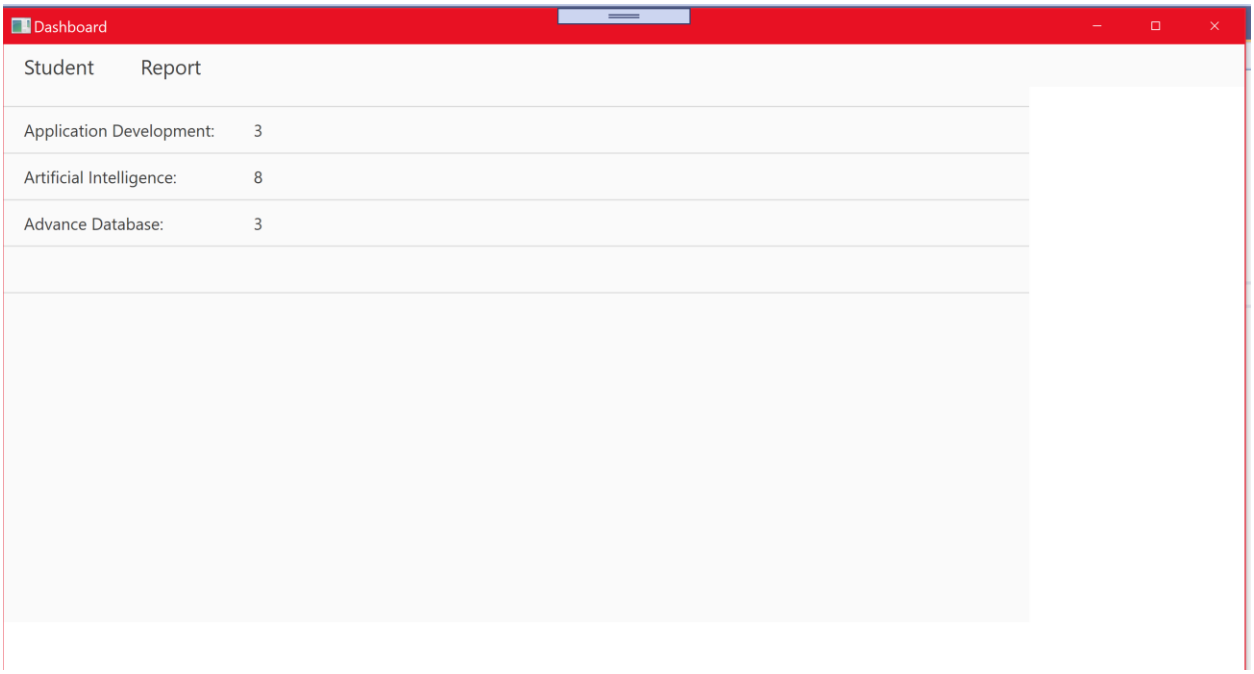


Figure 10:Data Grid View

There is chart table in which total enrollment of student is shown in the data grid view according to their enrollment subject name.

2.9. Chart of Daily Reports

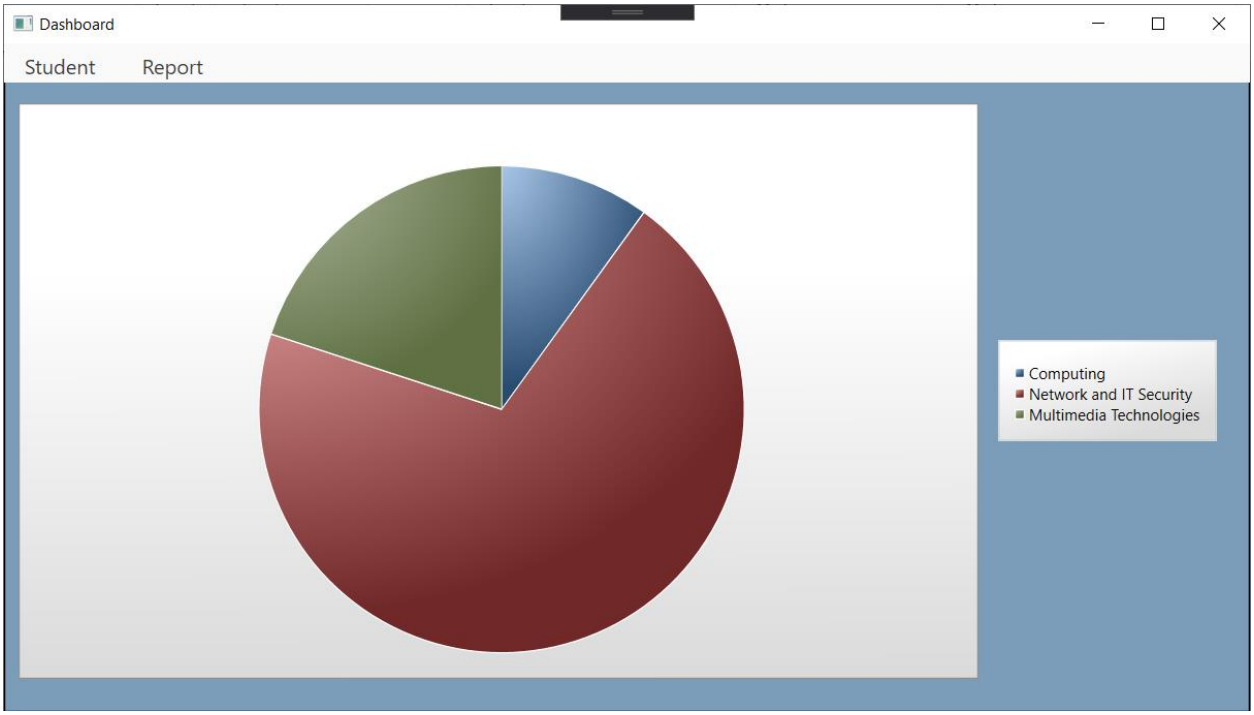


Figure 11: Daily Reports Chart

A chart is also shown that shows the number of students in each enrollment subject name.

3. Software Architecture

In simple words, software architecture is the process of converting software characteristics such as flexibility, scalability, feasibility, reusability, and security into a structured solution that meets the technical and the business expectations. This definition leads us to ask about the characteristics of a software that can affect a software architecture design. There is a long list of characteristics which mainly represent the business or the operational requirements, in addition to the technical requirements.

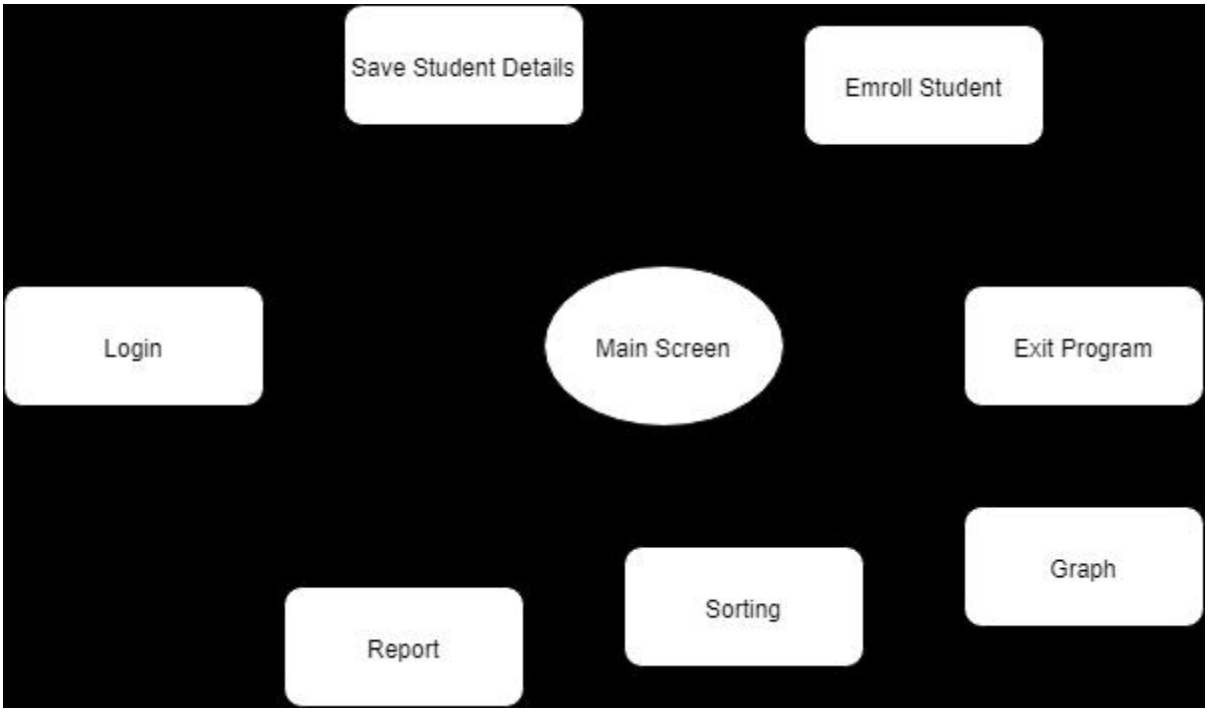


Figure 12:Software Architecture

4. Flow Chart

4.1. Daily Flow Chart

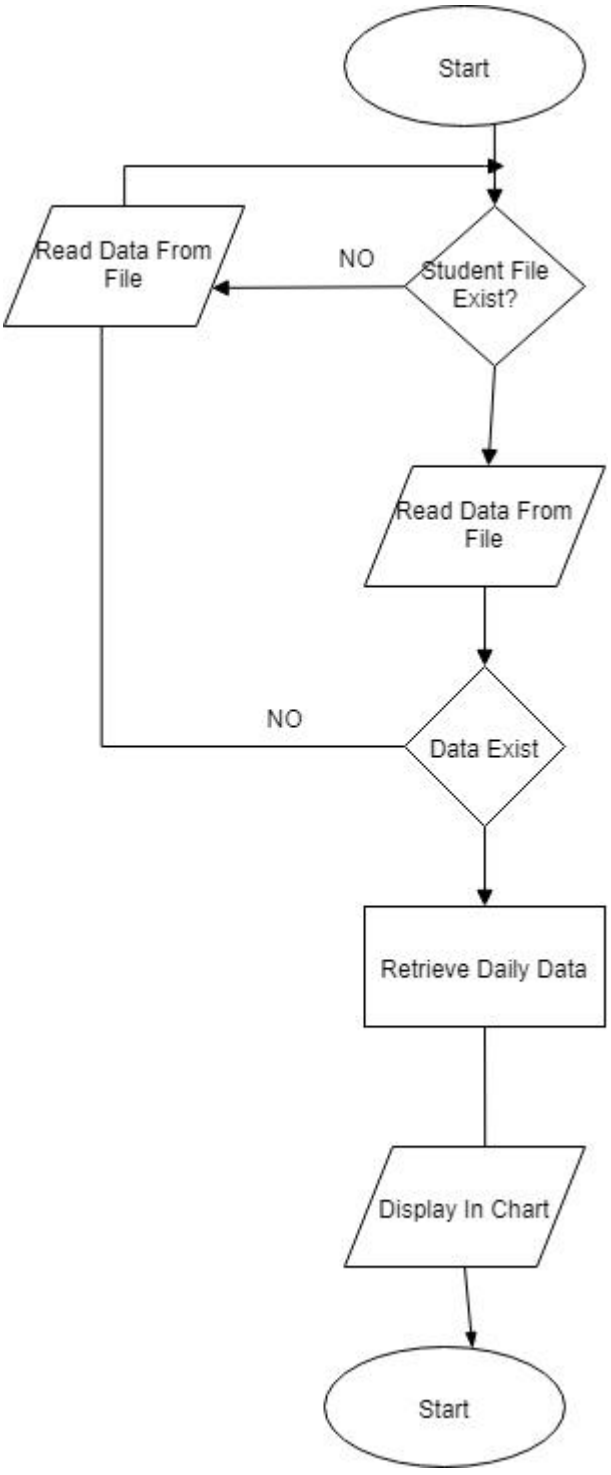


Figure 13: Daily Flow Chart

4.2. Weekly Flow Chart

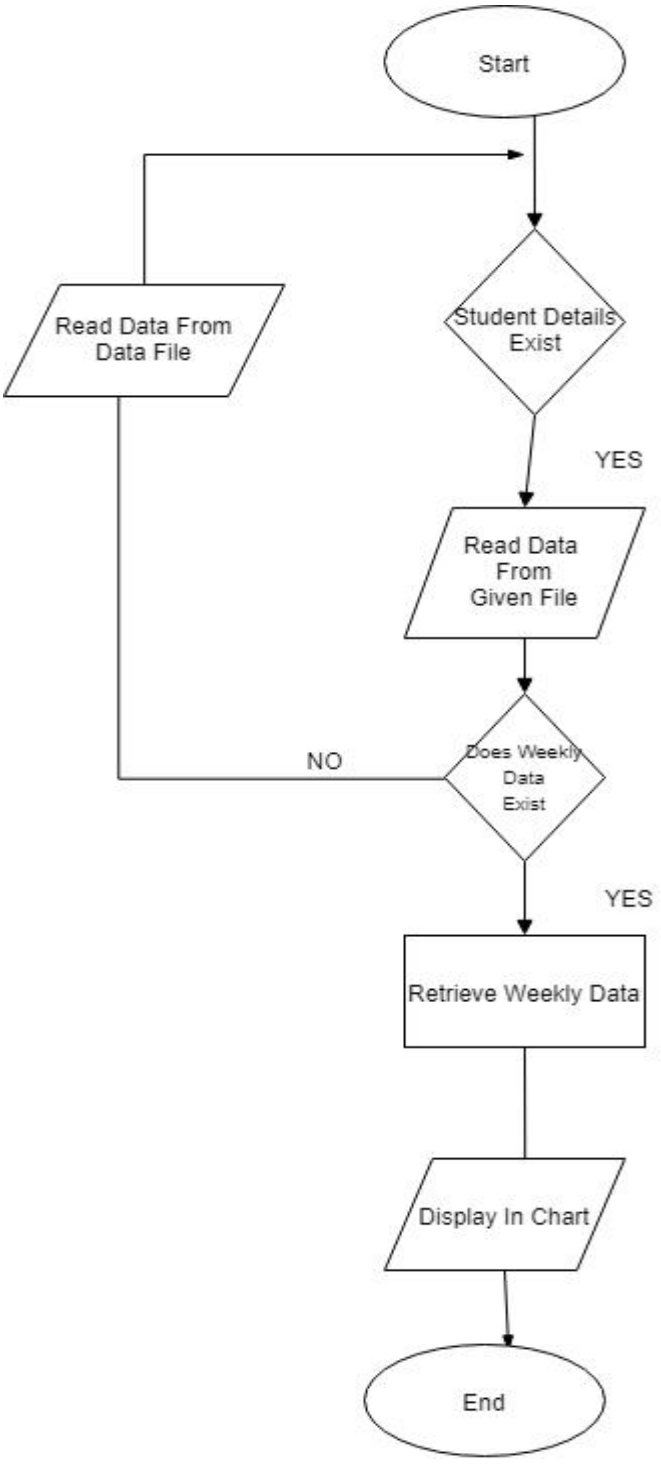


Figure 14: Weekly Flow Chart

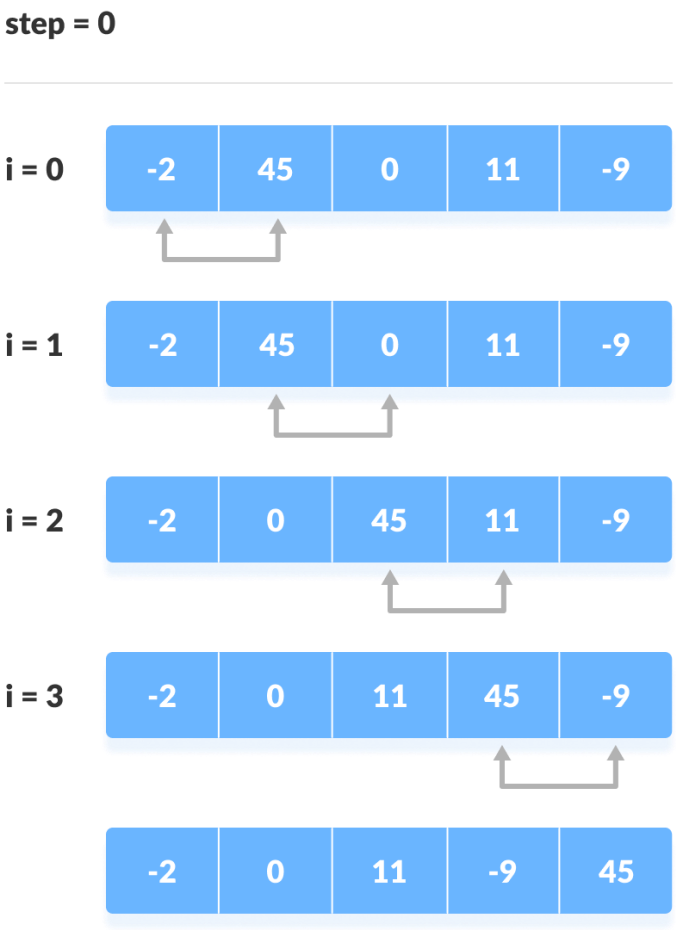
5. Algorithm Used

Bubble sort is an algorithm that compares the adjacent elements and swaps their positions if they are not in the intended order. The order can be ascending or descending.

How Bubble Sort Works?

Starting from the first index, compare the first and the second elements. If the first element is greater than the second element, they are swapped. Now, compare the second and the third elements. Swap them if they are not in order.

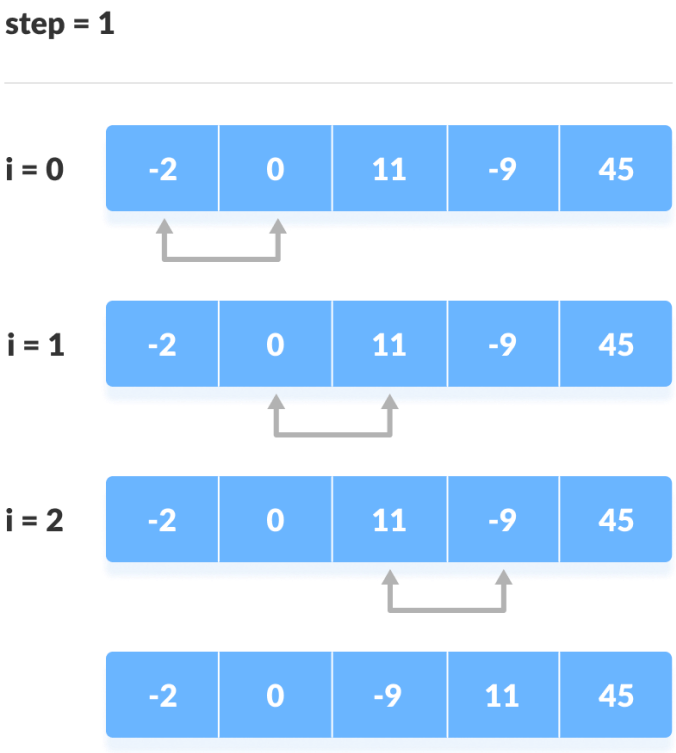
The above process goes on until the last element.

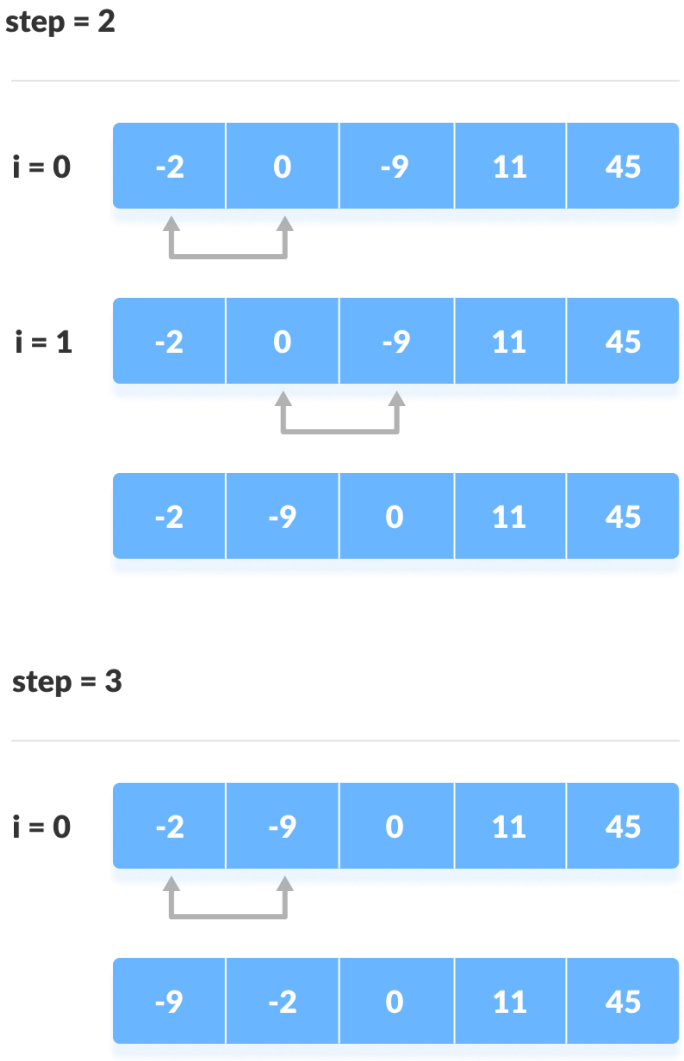


The same process goes on for the remaining iterations. After each iteration, the largest element among the unsorted elements is placed at the end.

In each iteration, the comparison takes place up to the last unsorted element.

The array is sorted when all the unsorted elements are placed at their correct positions.





CODE:

bubbleSort(array) for i <- 1 to indexOfLastUnsortedElement-1 if leftElement > rightElement swap leftElement and rightElement end bubbleSort

Reflection:

6. Reflection

For the development of whole project following tools have been used and various research were done in websites, journals, books, module,etc.

Tools Used for Development

- Visual Studio

Visual Studio is an software from where we can design code and make different software and codes. An end user can have the facilities of add the In Time and Out Time of the visitor along with their name. The total duration spend by the visitor is calculated automatically by the system.

Visual Studio 2019 is an integrated, complete solution with development tools, cloud services and extensions that enables you and your team to create great applications and games for desktops, the web, Windows Store, Android and iOS. Choose between different editions, depending on whether you work alone or in a small team (Professional edition) or in a complex project across departments and locations (Enterprise edition). Visual Studio 2019 provides everything you need to help you deliver software in less time and even better quality.

- **MS-Word :** For writing the report / documentation.
- **Draw.io:** For creating the diagram.

7. Conclusion

After Conclusion of the project I can gladly say that I was able to do better coding than before in C# with the help of the guide of the teacher and module leader. I was able to create and simple yet effective student registration system in C# with the help of WPF forms. Furthermore, I gained more knowledge in the sector of importing and exporting of the fields like csv and xml etc. and serialize and de serialize in the program. I was also able to add data in data grid and show that grid in the chart.

After the completion I am confident enough to make other similar types of project related to the programming language and have learned much more in the field.

8. References

Bubble Sort Algorithm. (n.d.). Retrieved 1 10, 2020, from programiz.com/dsa/bubble-sort