

STUDENT REPORT CARD

Abstract - The present project is aimed to create a Graphical User Interface program using C++ and Qt creator that can store, retrieve, display, insert, delete and modify a student's marks in their subjects. The program is completely GUI. The data is stored in a text file for future reference.

Keywords— Student Report card management, C++, OOPs,Qt

REQUIREMENTS

Classes which will be required in the Project are :

- MainWindow

The MainWindow will Provide you options like whether you are teacher or student if you are a teacher then you can login as admin or if you are a student then you can simply login as a student

Based on who you are admin/student you will have different kind of options

- AdminPanel

After successfully login as an admin you can access to different features like

- Create Student Report Card
- Edit Student Report Card
- Search Student Report Card
- Show all Student Report Cards
- Delete Student Report Card

Each of these functions have their different classes and header files which will be discussed later in this report

- StudentPanel

If you are a Student then you have access to two functions:

- Search Student Report Card
- Show all Student Report Cards

Design

Since we have created Graphical User Interface System we will try to explain the design with both frontend and backend prospects

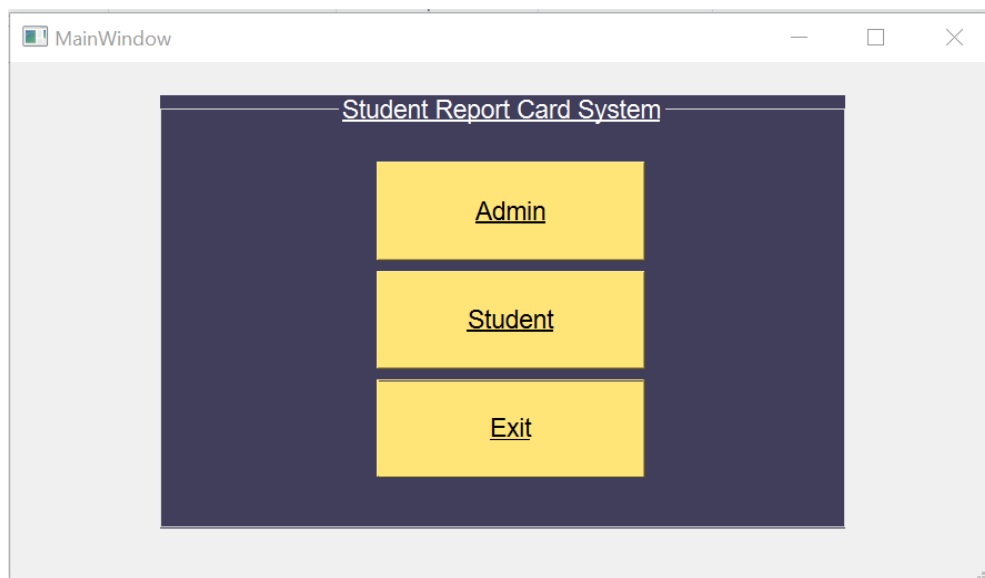
The Project Contains:

- Header Files:
 1. mainwindow.h
 2. admin.h
 3. student.h
 4. login.h
 5. create.h
 6. edit_report.h
 7. search_report.h
 8. show_all_report.h
 9. delete_report.h
- Source Files:
 1. main.cpp
 2. mainwindow.cpp
 3. admin.cpp
 4. student.cpp
 5. login.cpp
 6. create.cpp
 7. edit_report.cpp
 8. search_report.cpp
 9. show_all_report.cpp
 10. delete_report.cpp

- Forms

1. mainwindow.ui
2. admin.ui
3. student.ui
4. login.ui
5. create.ui
6. edit_report.ui
7. search_report.ui
8. show_all_reports.ui
9. delete_report.ui

1. MainWindow:



As seen in above image the main window contains three buttons :

Admin :- Redirects you to Admin Panel after successfully login through admin id and password

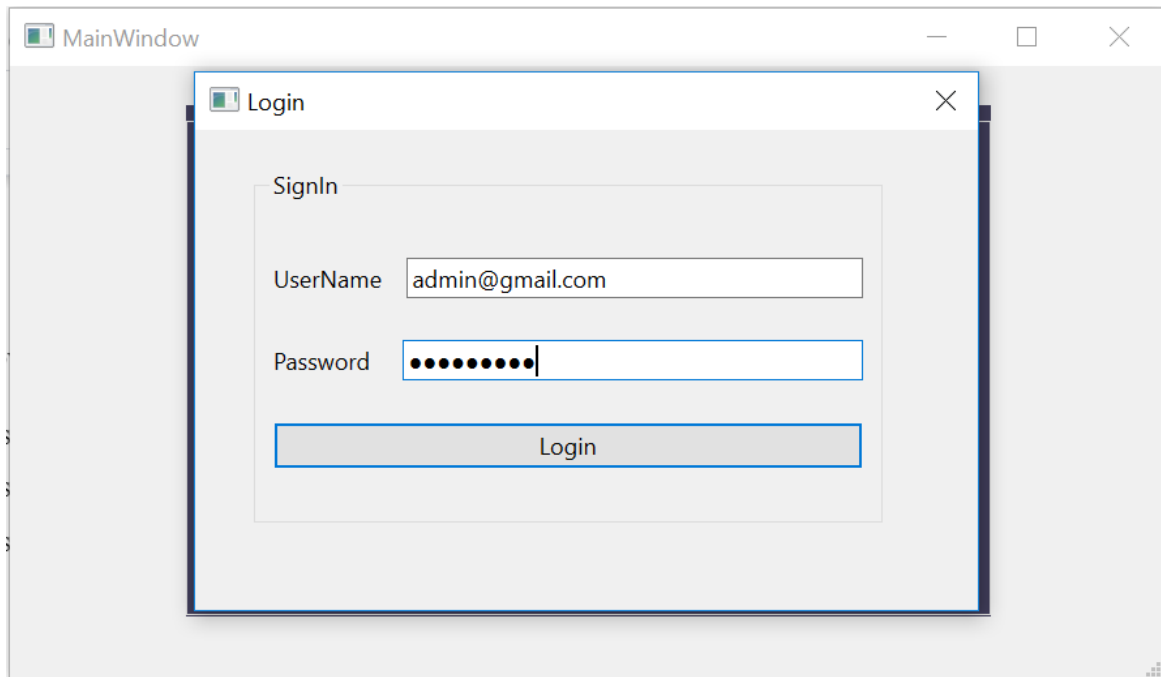
Student :- Redirects you to Student Panel (It does not require any login)

Exit :- Quits the Application

MainWindow Contains Three Functions :-

<code>void on_pushButton_3_clicked();</code>	Performs the action when you click admin button
<code>void on_pushButton_clicked();</code>	Performs the action when you click student button
<code>void on_pushButton_2_clicked();</code>	Performs the action when you click exit button

2. Login:



As soon as you click on admin button the system will open a new dialog box called login where you have to first login as a administrator to access the admin functions of system

you can verify your correct username and password by clicking on the login button

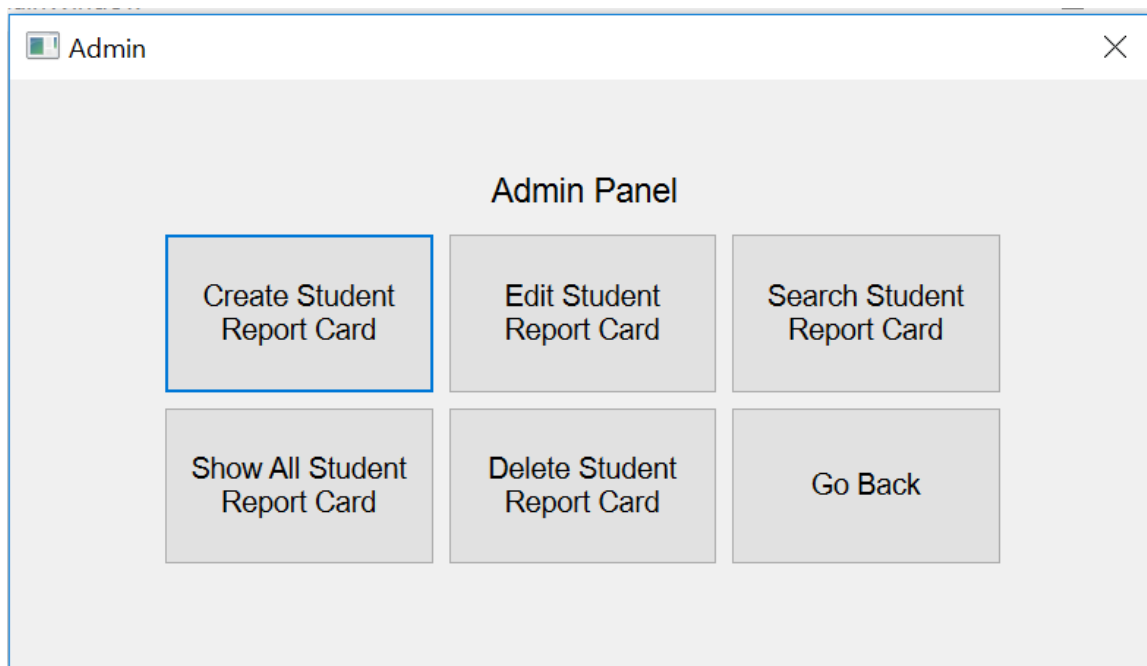
After Successfully login new window of admin panel will open which we will see further

Login contains one Function:

```
void on_pushButton_clicked();
```

This function calls when we click on the login button and it verify the username and password if they are correct then new window admin panel will open

3. Admin :

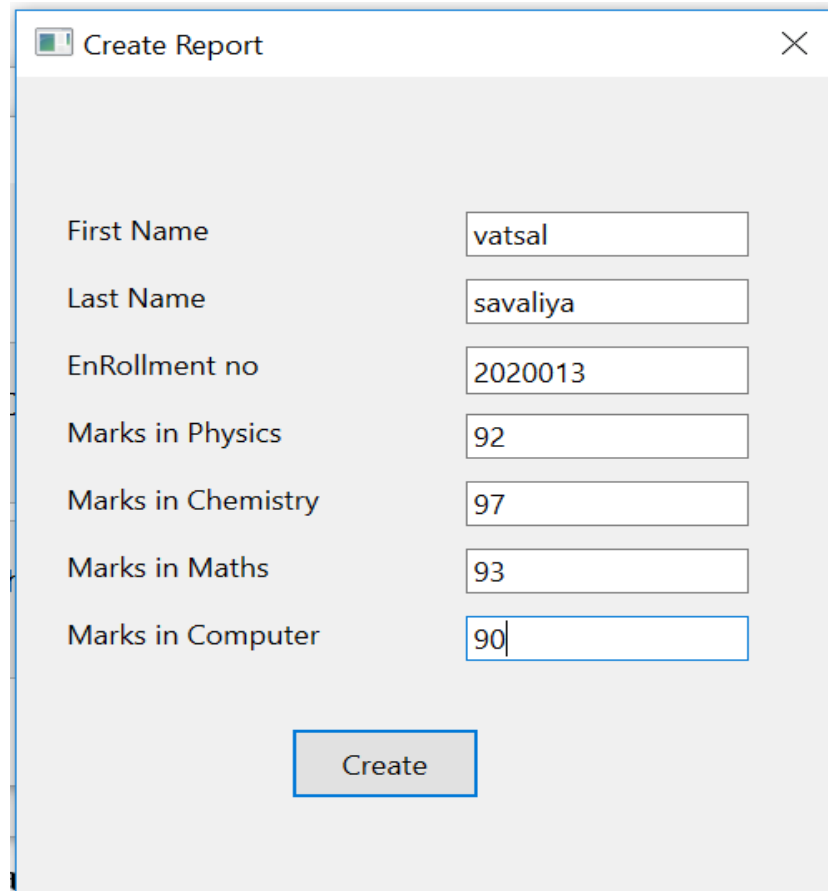


After Successfully login as admin through the login form the above admin panel opens

Function Contains by the admin class are

```
void on_pushButton_6_clicked(); (To Create Report)
void on_pushButton_clicked();   (To Edit Report)
void on_pushButton_3_clicked(); (To Search for Report)
void on_pushButton_4_clicked(); (To Show all Report Cards)
void on_pushButton_5_clicked(); (To Delete the Report Card)
void on_pushButton_2_clicked(); (To Go Back to main window)
```

4. Create Report:



First Name	<input type="text" value="vatsal"/>
Last Name	<input type="text" value="sawaliya"/>
EnRollment no	<input type="text" value="2020013"/>
Marks in Physics	<input type="text" value="92"/>
Marks in Chemistry	<input type="text" value="97"/>
Marks in Maths	<input type="text" value="93"/>
Marks in Computer	<input type="text" value="90"/>

When you click on the “create student report card” button in the admin panel it will open up a dialog box where you have different fields which are as follows :

First Name

Last Name

Enrollment No

Marks in Physics

Marks in Chemistry

Marks in Maths

Marks in Computer

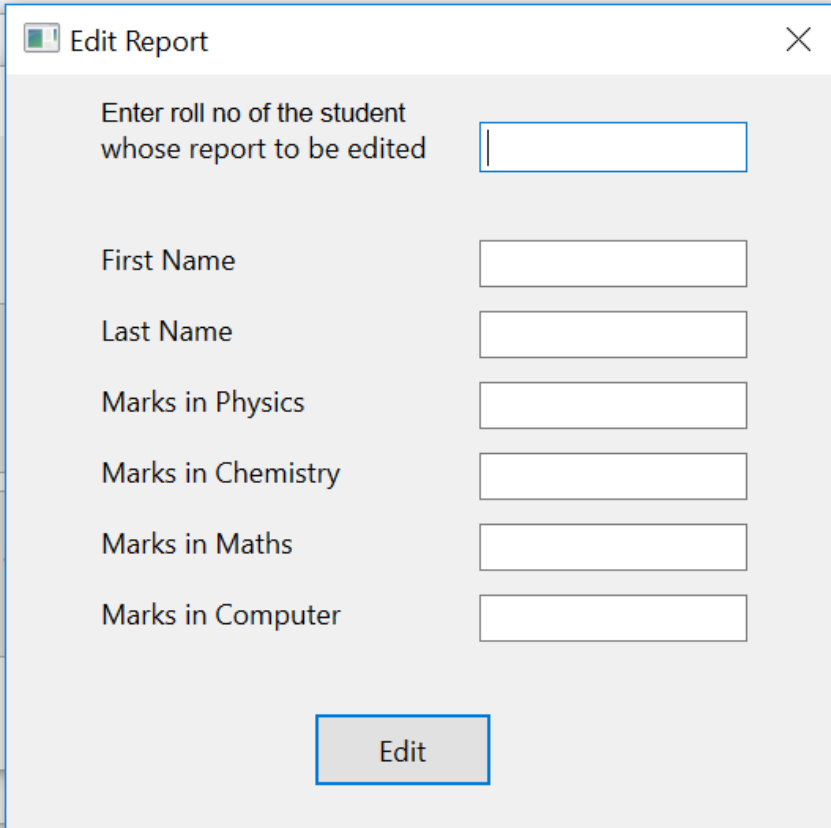
As soon as you fill all the fields you can click on the create button to create your report

Functions contain by the create class are :

`void on_btnAdd_clicked();` (create button)

This function takes all the data enter by the user and store it in a text file name “report.txt” so that we can access the data anytime we want.

5.Edit Report :



The image shows a Windows-style dialog box titled "Edit Report". It has a standard title bar with a close button (X) in the top right corner. The main content area is light gray and contains the following elements:

- A label "Enter roll no of the student whose report to be edited" followed by a single-line text input field.
- A label "First Name" followed by a single-line text input field.
- A label "Last Name" followed by a single-line text input field.
- A label "Marks in Physics" followed by a single-line text input field.
- A label "Marks in Chemistry" followed by a single-line text input field.
- A label "Marks in Maths" followed by a single-line text input field.
- A label "Marks in Computer" followed by a single-line text input field.
- An "Edit" button located at the bottom center of the dialog.

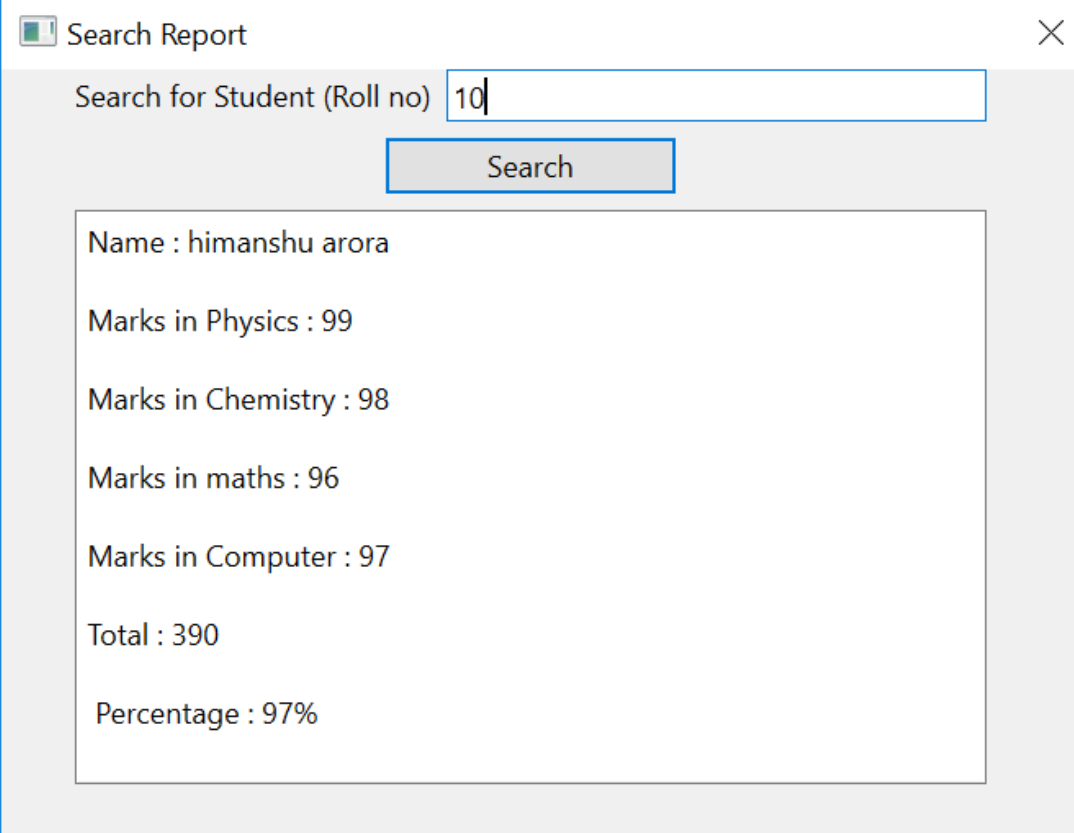
When you click on the “edit student report card” button in the admin panel it will open a new window called Edit Report as shown above where you can edit the Student details by simply entering the roll no of the student whose report you want to edit.

Function contain by edit_report class :

`void on_btnAdd_clicked();` (Edit button)

As soon as you click the button all the data of the student will be updated by the new data in the “report.txt” file

6. Search_report:



The screenshot shows a window titled "Search Report" with a close button (X) in the top right corner. Inside the window, there is a text input field labeled "Search for Student (Roll no)" containing the value "10". Below the input field is a button labeled "Search". Below the button is a large text area displaying the following information:

- Name : himanshu arora
- Marks in Physics : 99
- Marks in Chemistry : 98
- Marks in maths : 96
- Marks in Computer : 97
- Total : 390
- Percentage : 97%

The search button in admin panel will open a window called search report where you can enter your roll no to watch the report of the student

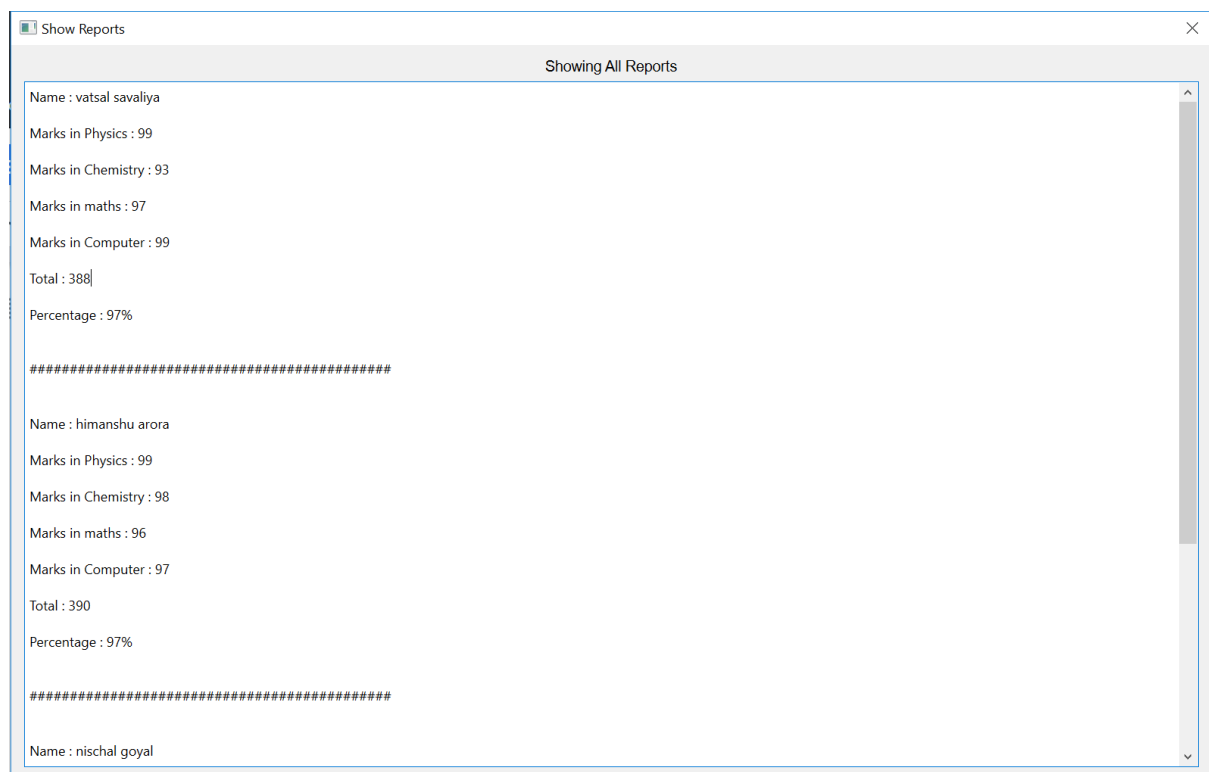
The data shown in text box contains two extra fields called Total and Percentage

Function contain by the search_report class are :

`void on_pushButton_clicked();` (Search Button)

As soon as you click on the search button it will display all the information of the student

7. Show_all_reports:



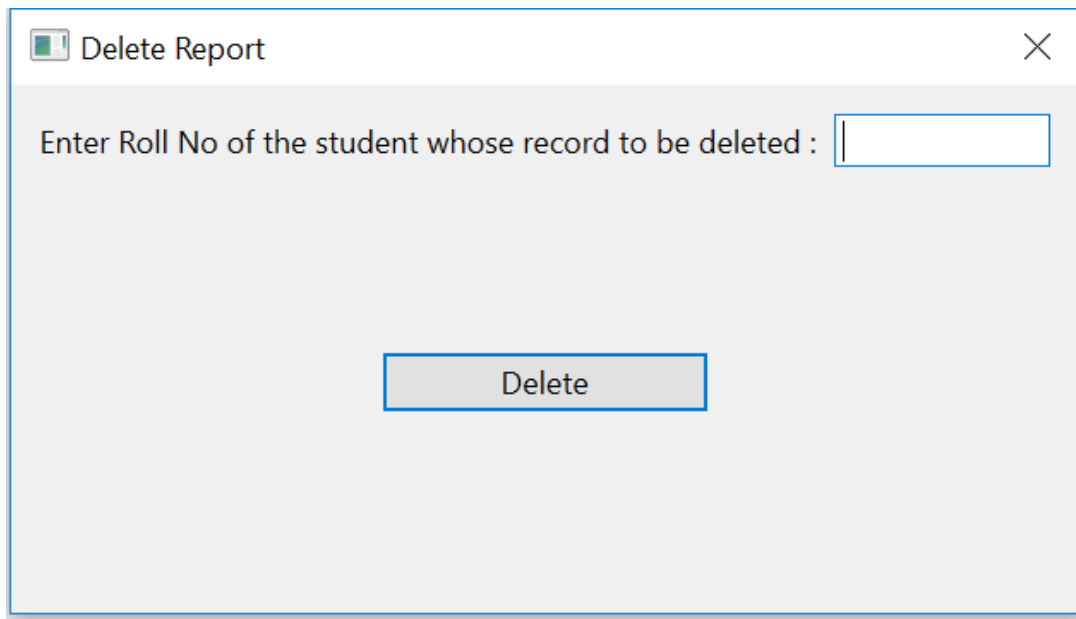
As soon as you click on the “show all reports” button in admin panel it will open up a dialog box called Show Reports where you can watch report of all the students

Functions contained by this class are

`void show_reports();`

This function reads the data from the text file and displays all the data of all students.

8. delete_report:



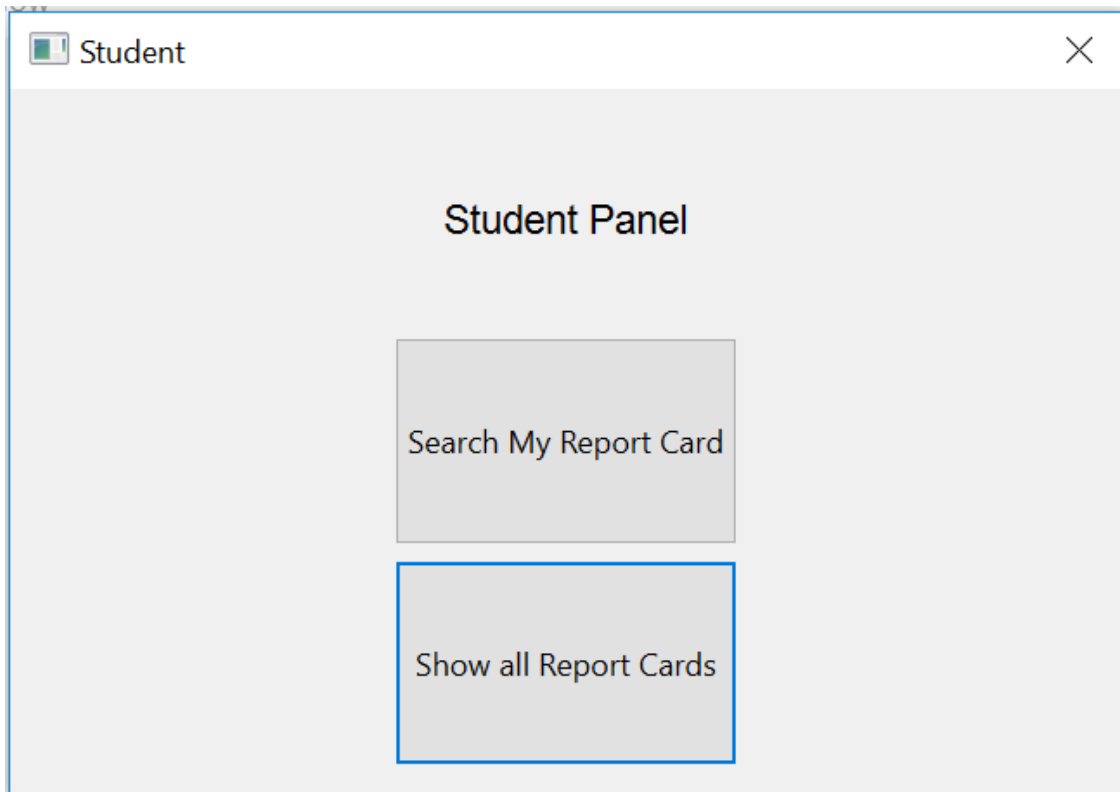
On clicking on the “delete student report card” button in the admin panel it will open up a new dialog box called Delete Report where you can enter the roll no of the student whose record you want to delete

Functions contain by the delete_report class are:

`void on_pushButton_clicked();` (Delete Button)

On clicking on the delete button it will delete the student report card from the text file

9. Student:



The Student have only access to two features :

- Search My Report Card
- Show all Report Cards

These two functions are the same as previous functions `search_report` and `show_all_report`.

CONCLUSION

This report contains the mini project Student Report Card Management project made using C++ and Qt Creator by Team # 7, IIIT Lucknow submitting for our Object-Oriented Methodology course.

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