

Classroom Management System

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Project Guide

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Abstract — A simple program similar to google classroom, for passing information to different group of students at a time with login and registration system. Teacher can create a classroom and students can join this classroom with class code. Teacher can share information to those who have joined this class and also view their information.

Keywords — *cpp, classroom, login, communicate, teacher, students;*

I. INTRODUCTION

Covid-19 has brought teachers & students from offline classrooms to online meetings. During offline period it was easier to handle assignments and papers, but in online mode it's important to take care of this documents & pass information with ease. Therefore, we started using google classroom which helped us to the same. In this project, we have tried to make a program based on the similar logic of google classroom, where teacher can pass notice to those students who join their classroom with login and registration system.

II. LITERATURE REVIEW

The first project that I referred is "Bank Management System" which was made as the part of C++ Udemmy course by Abdul Bari sir. Here map data structure was used in making relation with Account & Banks data. I have used similar logic for connecting data of teachers, students & classrooms. But this project had no security system which was its limitation. Therefore, I have included Login & registration system for students & teacher.

The second paper is "Login & register system" by MH computer academy which helped me build login & registration program but this project didn't save the data of users so after closing, all the data is lost. Considering this issue, I have used file handling for saving all data in my project.

III. PROBLEM STATEMENT

To develop a program which will provide a central place where specific group students & teacher can interact with each other by creating classroom with proper login & registration system.

IV. OBJECTIVE

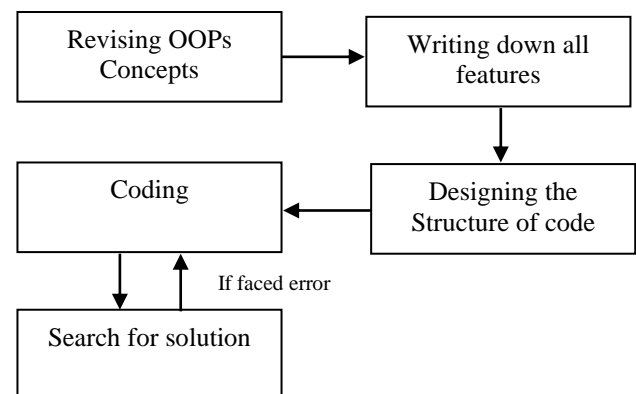
Security – Data is an important thing which can be used for evil work against others. So, it's important to keep them out of the hand of unauthorized people. Therefore, I have a login & registration system for students & teacher and no other person can see one's data with its user id and password.

Classrooms – It's easier for a teacher to convey a message to a group of that particular students instead of messaging each one separately. Therefore, in my system teacher as the feature to create multiple classrooms and tell student to join it with class code.

View Students – Those students who have joined the classroom, the teacher who have created that classroom can view information of students for various purposes.

Safe data – After every operation all the data get save in data files so that even after restarting the program you will be felt from where you stopped.

V. METHODOLOGY



The first task was to refreshing my OOPs concept which I learned a long time ago. I used my notes and some geeks for geeks article for that. Once I was comfortable with the methods I planned and write down all the features that I want in my system with pen & paper. After that I worked on designing the structure of code like classes and its function & attributes. And finally begins the coding. During coding I made sure to add comments in it, so when I'm visiting the code after a long while, I can still understand the purpose the part of code. Whenever I faced any error or difficultly during coding, I debugged the code & also took help from online platforms like stack-overflow.

VI. FEATURES

Login & Registration System – Students & Teacher will have to register themselves for login in system. Login will require them to enter the password that they created during registration.

```
*****Welcome to VIT Classroom*****

1.      Login as Student
2.      Login as Teacher
3.      Register as new Student
4.      Register as new Teacher
5.      Quit

*Choose from above: 1

***Login***
Enter your Roll Number: 1
Enter the password: 12345

***Logged In Successfully***
Welcome, Mandar
```

Figure 1

Classroom – Every teacher has this feature to create multiple classrooms similar to google classrooms. Every classroom has a self-generated code which students can use to join it.

```
***Logged In Successfully***
Welcome, Amol
1.      View my profile
2.      View all classrooms
3.      Enter in classroom
4.      Create new classroom
5.      Log Out
Choose from above: 2
Displaying all the classroom created:
3 DSClassroom
```

Figure 2

Roll No. & ID – Whenever a new registration is done, system automatically generate an id or roll no. next to the last persons id or roll no. from data. This is a unique key which will help database to differentiate every teacher & student.

```
***Registration***
Enter your first name: Rohan
Enter your last name: Patel
Create a *strong* password: 12345

***Account Successfully Created***
Here is your information
Roll Number.: 5
Name.: Rohan Patel
```

Figure 3

Notice – Teacher can add or update notice in classroom which will be reflected to students how have joined that classroom.

```
And the current notice is:
SubmitAssignments
Do you want to edit it? (Yes -> Y): Y
Enter the new notice
NoLectureToday
Notice Updated
```

Figure 4

Profile – Teacher can view profile of those students who have joined their classroom.

```
Here is your classroom:
Classroom name is 3rd
Classroom code: 2
Classroom's teacher id: 1
Student roll Number who have joined:
1
2
```

Figure 5

Data Recovery – The most important feature for saving all the changes that were made during the execution of program. This was made using file handling.



Students.data	
1	1
2	Mandar
3	Patil
4	12345
5	2
6	Rahul
7	Pawar
8	54321
9	3
10	Manomay
11	Jamle
12	12345
13	4

Figure 6

VII. ADVANTAGES

Some of the advantage analyzed are:

1. Better way of making a group of students and teacher
2. Different view for students and teachers
3. Ensure Security
4. Real time data recovery

VIII. CONCLUSION

All the above points mentioned conclude that this program provides seamless services for both Teachers and Students.

IX. ACKNOWLEDGEMENT

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X. REFERENCE

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