

# Pseudo Classroom - Scheduler+Classroom

Link for the Project -

<https://pseudoclassroom.herokuapp.com/>

Credentials required to logged in to the System -

Students-

1. xyz123@gmail.com (Password - 123456789)
2. abc123@gmail.com (Password - 741852963)
3. uvw123@gmail.com (Password - 123456789)
4. lmn123@gmail.com (Password - 123456789)

Teachers-

1. abcteacher@gmail.com (Password - 123456789)
2. xyzteacher@gmail.com (Password - 123456789)

In case of the Forgot Password, to see the OTP please use the Gmail account I had created an email for that, whose credentials are:

(Mail ID- classscheduler.engageproject@gmail.com  
password - PriyanshiMenteeMEP)

Tech Stacks used in this Project-

Front End- React.js

Backend- Express , Node.js

Database- MongoDB (mongodb cloud service)

Hosting- Heroku

Mail service used is **Nodemailer** for sending OTP on mail for Reset Password, Fetching data from Database to front end, **Axios** is used. For connecting to DB **Mongoose** middleware is used. For the whiteboard I used the Browser API known as **CanvasAPI**. For testing my backend in the testing phase I used **Postman**.

This app is to help an institution, organisations, coachings,etc.. In which there are two portals one for student and other for teacher with their respective authentication and they will be linked by courses which depict that so n so the student is enrolled in this course and whose teacher is this one.

The basic functionality of this app is to schedule the classes when the teacher wants to have the class In-Person then he/she will set the criteria as per requirement which is (Vaccination status, % of the students to be allowed only to attend the class In-Person, student should come with Parent's concern or not). After setting the criteria, the teacher will be able to see the student list of who are taking the class in person and who else are taking it remotely only.

There is one more functionality to send the Broadcast message in any of their courses to each of the students as a notification of an important announcement.

Now, only when the teacher has set the criteria the students will be allowed to give their preference for that particular class and weekday, and if they satisfy the criteria given by the teacher, only after which they will be allowed to take in-person class else they will be asked to take the remotely only.

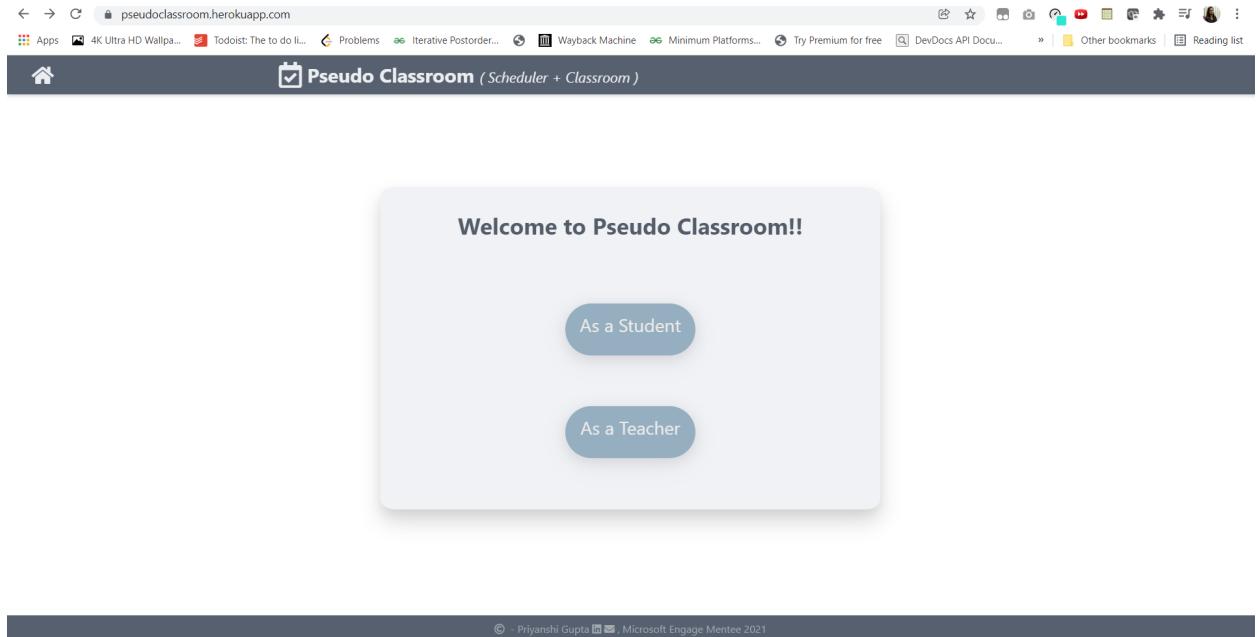
The broadcast messages sent by the teachers to the students will be there in the student's notification box and also the count of unread notifications will be marked.

This is the one functionality of the scheduler for weekly classes and this happens flow **remains for a week only** and once a week **finishes** the new entry of the new week will begin to proceed.

Apart from the scheduler, this app works as a small classroom as well for the virtual classes as in virtual classes, teacher teaches on online platforms so there won't be any whiteboard handy for them. So, for this, **I made a whiteboard for teachers** to teach students using that by sharing their screen which has functionalities like (write, erase, download image to send students as notes, upload an image on to it to teach students regarding it, redo, undo the work done, reset the whiteboard).

And a special feature for students to **make a few handy notes, todos, or anything** they want to write over their profile if they didn't have anything handy at that time. This will really help students to remember things, these are **StickyNotes** kinds of things.

This app also consists of the functionality of basic profile related like **editing profile details, changing password, Authentication, and Forgot Password using OTP via mail** to verify the person.



## Home Page of the App.



Welcome again, as a Student!

Login

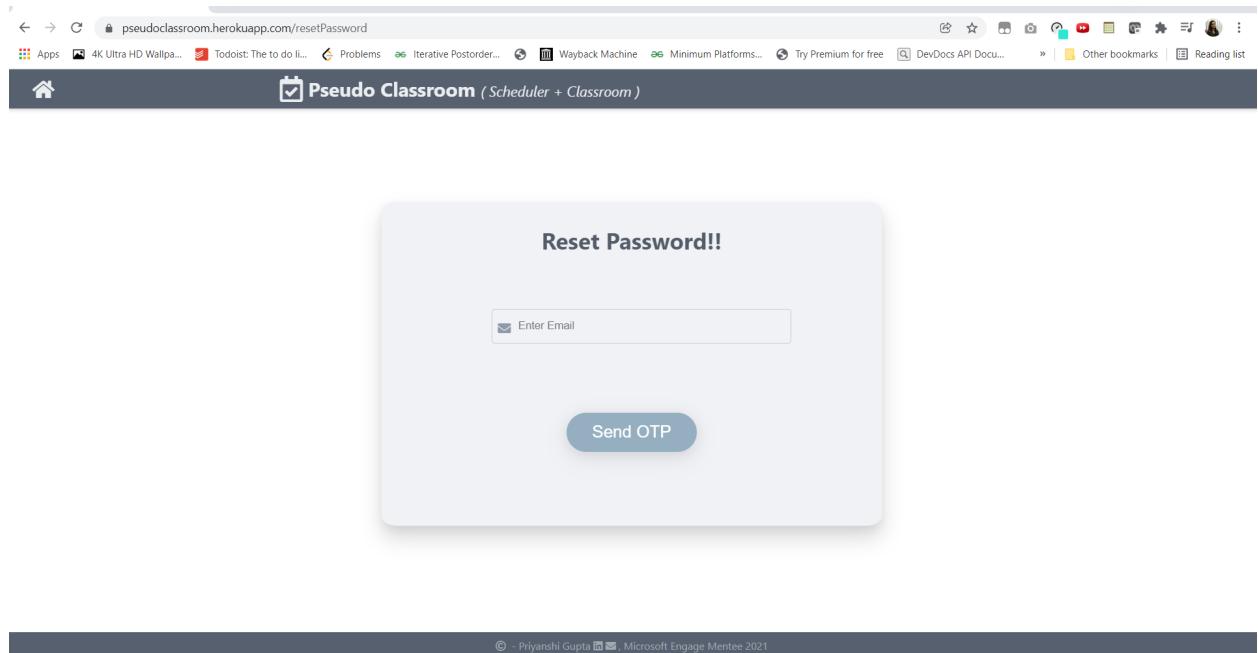
[Forgot Password?](#)

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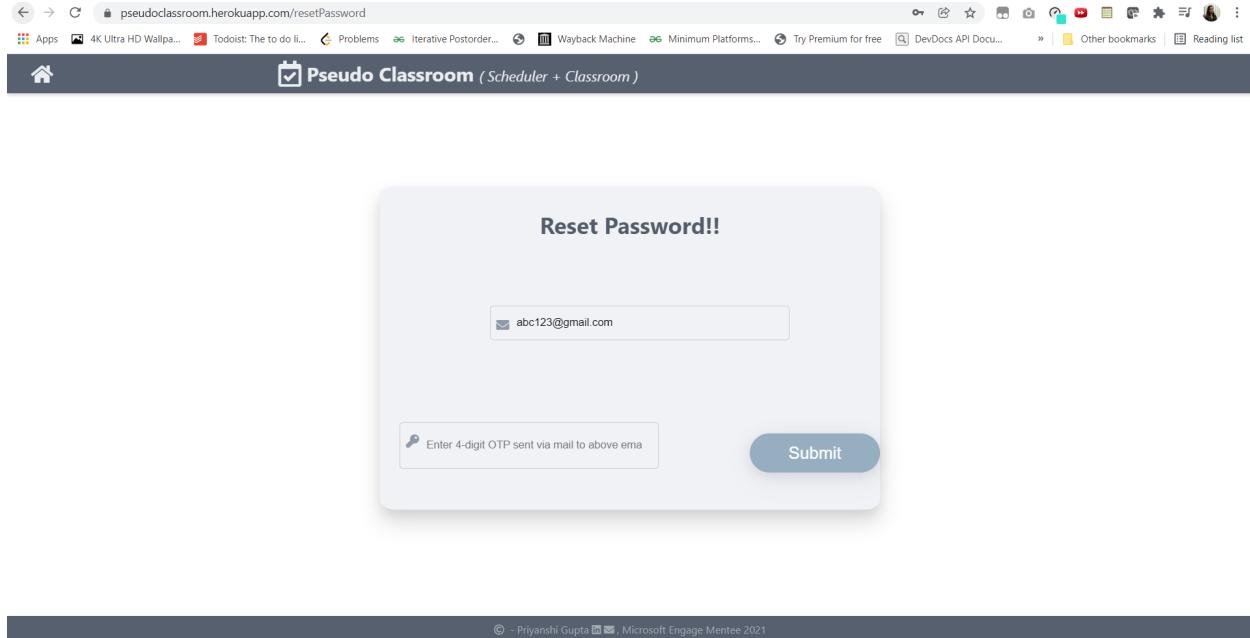
## Student Login Page.

## Password Reset

1. When forgotPassword is clicked this will be rendered.



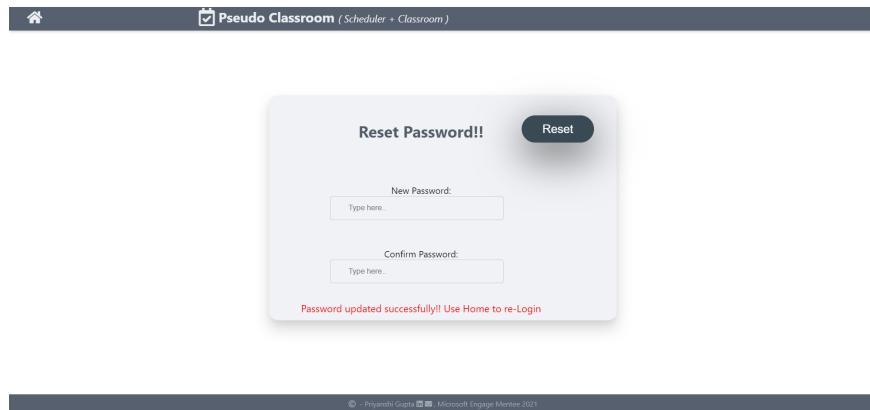
2. After Entering the email a 4-digit OTP will be sent to that mail and enter that OTP here and if matches then only will be able to reset Pass.



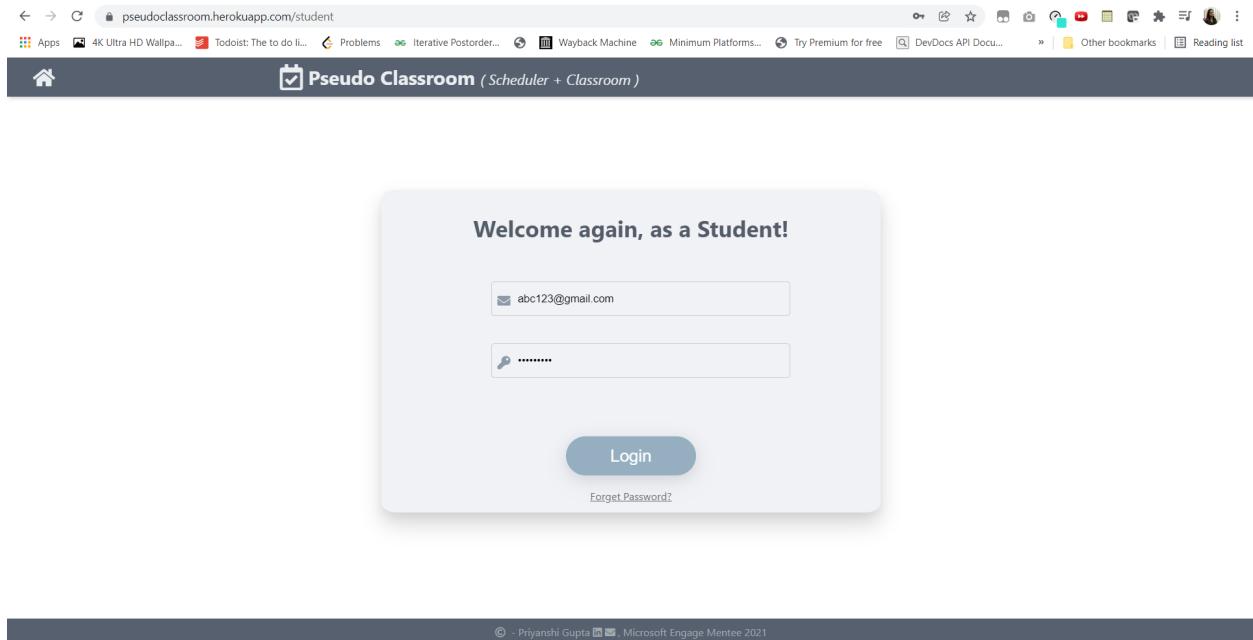
3. This is how mail goes to that but I had used dummy mails for users so I couldn't show the mail reached to that people but I made a separate mail to send these OTP from the app (I have mentioned that above also) this which is shown below- and OTP is being marked in red in the mail.  
(Shown below.)

A screenshot of a Gmail inbox. The search bar shows "in:sent". The "Sent" folder is selected. A single email is highlighted, showing it was sent to "xyzteacher" on Nov 27, 8:02 PM. The subject is "OTP for email verification for password reset". The body of the email reads: "Hello XYZUV, Sorry to hear you forgot the password but don't worry we are here to help you to get through it just use this 4-digit OTP **5321** for the moving forward with the password reset process. Thanks, Class Scheduler". Below this, there are two more recent emails from the same sender, dated Nov 27, 2021, 8:02 PM and Nov 27, 2021, 8:08 AM, both with the same message body. At the bottom, there are "Reply" and "Forward" buttons.

4. And if OTP matches then enter a new password to be updated and reset.  
If the password is successfully changed then, use the Home icon to re-login.

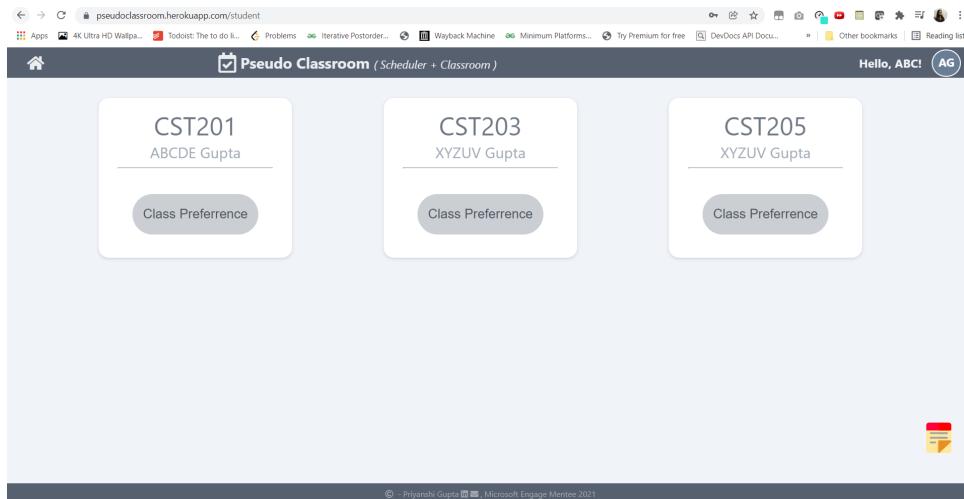


Enter Email and Password and then upon validating whether such an account is there and if there is an account, then they will be allowed to proceed.

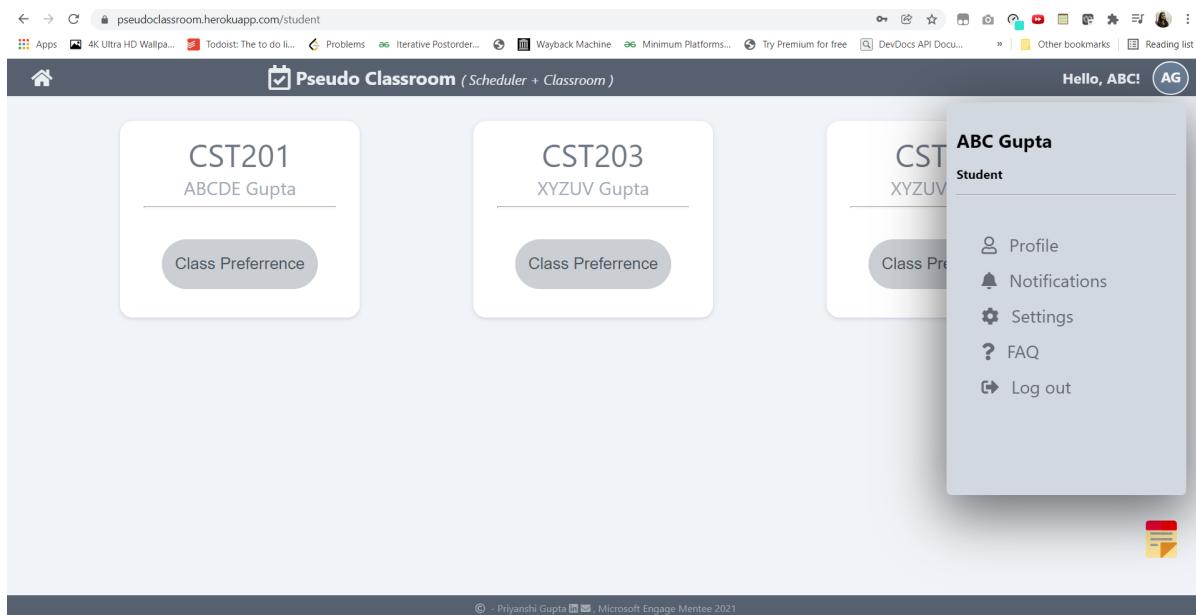


## Dashboard of the student.

(fetches the courses in which this student is enrolled and show Each course which consists CourseName, TeacherName, and class preference button helps in giving the preference for this course's classes for a week)



The top right corner consists of the Profile button upon clicking shows the options for Profile details updation, Settings, Notifications, FAQ, and a Logout button.



1. Notifications Box to display the Important announcement made by the teacher as a Broadcast message in that course.

The screenshot shows a web browser window for 'pseudoclassroom.herokuapp.com/student'. The main interface displays a sidebar with 'CST201' and 'ABCDE Gupta'. A central 'Notifications' box contains three messages:

- CST205**: Please fill preference regularly.
- CST205**: Please do fill Preference to take classes this week.
- CST203**: (empty)

The right sidebar shows a user profile for 'ABC Gupta' (Student) with links for Profile, Notifications, Settings, FAQ, and Log out. The bottom of the page includes a footer with copyright information.

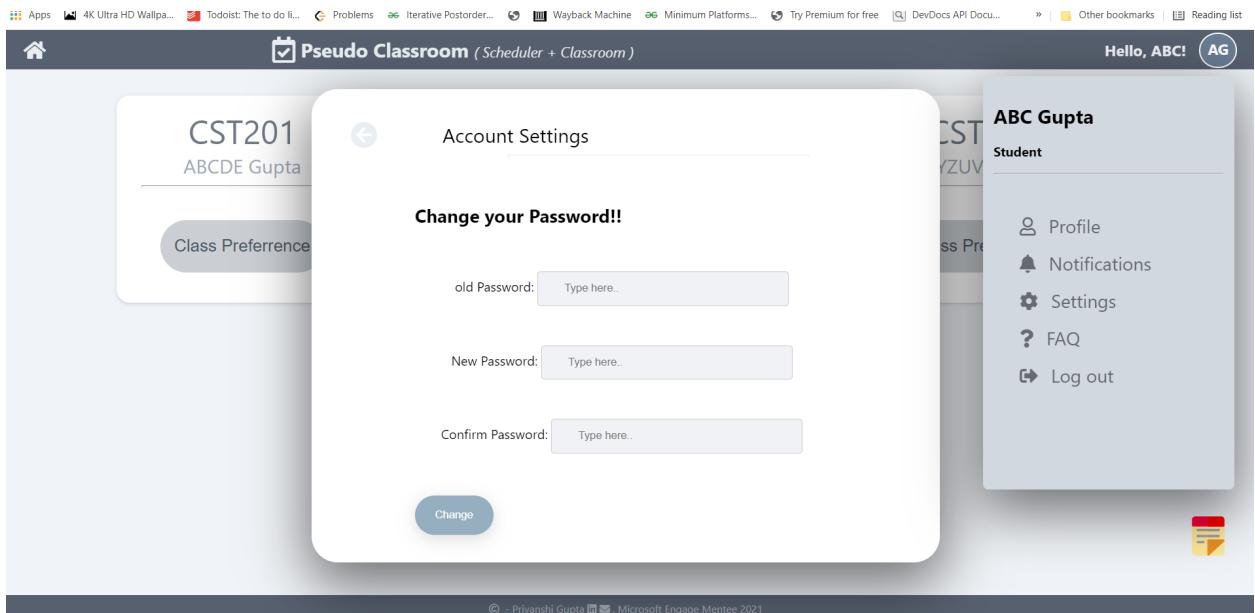
2. Profile box to display profile details that can be updated by the user.

The screenshot shows a web browser window for 'pseudoclassroom.herokuapp.com/student'. The main interface displays a sidebar with 'CST201' and 'ABCDE Gupta'. A central 'Profile' box contains fields for:

- Email: abc123@gmail.com
- First Name: ABC
- Last Name: Gupta

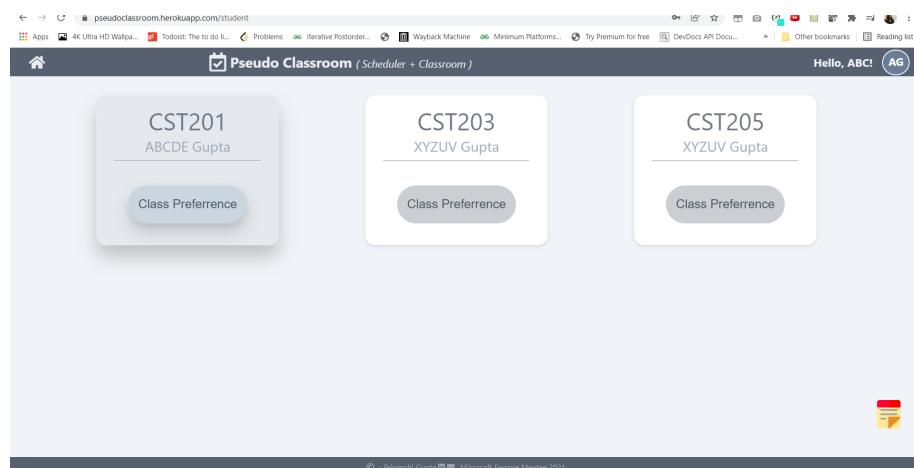
A blue 'Edit' button is located at the bottom right of the profile box. The right sidebar shows a user profile for 'ABC Gupta' (Student) with links for Profile, Notifications, Settings, FAQ, and Log out. The bottom of the page includes a footer with copyright information.

3. Settings box to display an Option to change the Password.



On these courses, Students go to any and give preference **Class Preference** which will display something like this as in the DB. I Hardcoded that this class happens on Tuesday, Thursday, etc..then the preference for that day will be taken from the student if the teacher sets the criteria only.

From fig. As for the Tuesday, class teacher had given the criteria, so the option to select the preference is shown to them. Else he/she will show the message written in Thursday classroom.



Now, If In-Person is selected by the student then the app first checks if % of students asked by the teacher has reached the limit then also students will be shown that he is not allowed to take In-Person class and will not be asked for further details simply asked to attend the class remotely only. will ask students for a little more information about the basic details. And then the scheduler will check a few conditions and upon passing those only then the student is allowed for In-Person class for that day else he will be asked to attend class remotely. Those conditions are like Vaccination status and parent's concerns.

1.

The screenshot shows a web browser window for the 'Pseudo Classroom' application. The URL is [pseudoclassroom.herokuapp.com/student](https://pseudoclassroom.herokuapp.com/student). The page displays a survey for a 'Tuesday Class'. The question is 'What mode do you prefer for Day class?' with two options: 'In-Person' and 'Remote'. A 'Send' button is visible next to the 'Remote' option. Below the survey, there is a message for a 'Thursday Class' stating: 'Your teacher have not given any criteria yet. we will get back to you when your teacher adds the criteria.Thank you your patience!' The browser toolbar at the top includes various icons for navigation and bookmarking.

2.

The screenshot shows a web browser window with the URL [pseudoclassroom.herokuapp.com/student](https://pseudoclassroom.herokuapp.com/student). The title bar says "Pseudo Classroom (Scheduler + Classroom)". The main content area is titled "Preferences for CST203". It asks "What mode do you prefer for Day class?" with two options: "In-Person" (selected) and "Remote". Below this, it asks for vaccination status with a dropdown menu "Select status:" and a "Send" button. At the bottom, it asks about parent's concern with "Yes" and "No" radio buttons. A small note at the bottom right says "© - Priyanshi Gupta, Microsoft Engage Mentee 2021".

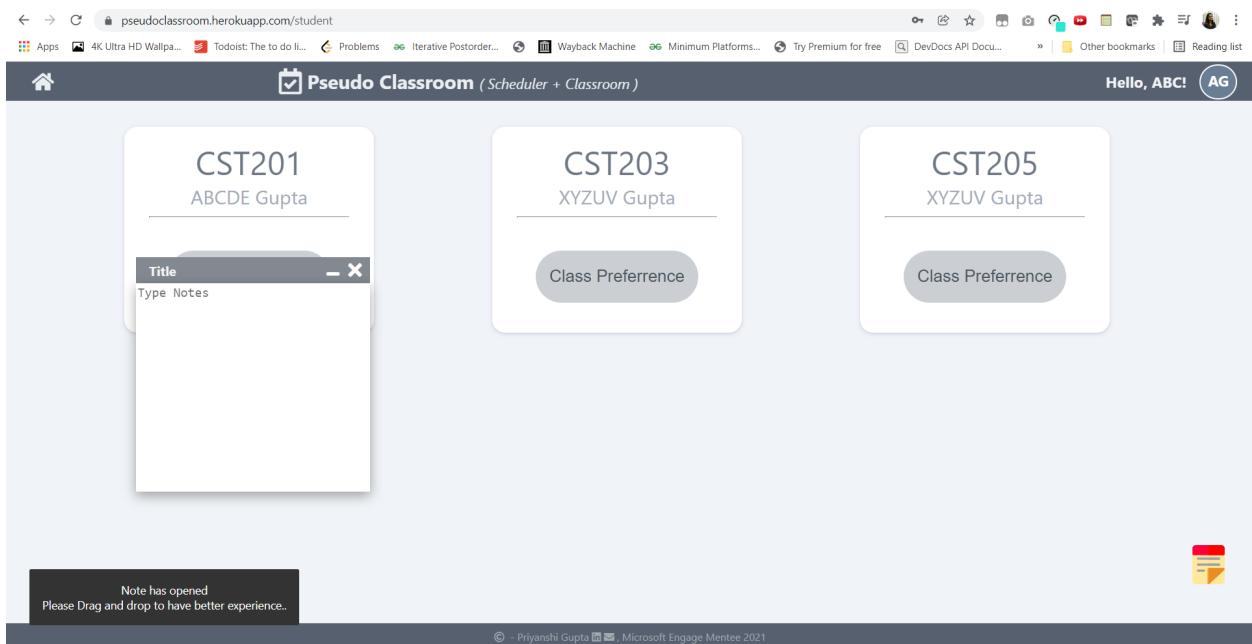
If a teacher is asked for an In-Person class for any day then it will be to them that they can' give preference for this day as the teacher has not asked for it. (refer to below fig.)

The screenshot shows a web browser window with the URL [pseudoclassroom.herokuapp.com/student](https://pseudoclassroom.herokuapp.com/student). The title bar says "Pseudo Classroom (Scheduler + Classroom)". The main content area is titled "Preferences for CST203". It shows a message: "Sorry, for this day your teacher has asked to attend the class remotely only. So, no Preference needed!!". Below this, it shows a message for Wednesday: "Your teacher have not given any criteria yet. we will get back to you when your teacher adds the criteria.Thank you your patience!" A small note at the bottom right says "© - Priyanshi Gupta, Microsoft Engage Mentee 2021".

## StickyNotes

This is another feature in the Student Dashboard which is to create a stickyNote upon hitting the stickyNote icon on the rightmost bottom. Then it will be appended to the body as to where it is shown (in the fig. below) and it will show the Pop-up or Toast in technical terms at the bottom left to show students that they can drag and drop on the screen from anywhere to everywhere and can note anything in the **note section** by giving any **title to the Note**.

## Sticky Notes



## Notifications Feature

This is to send Important announcements by the teacher to the students in the form of notification onto their profile.

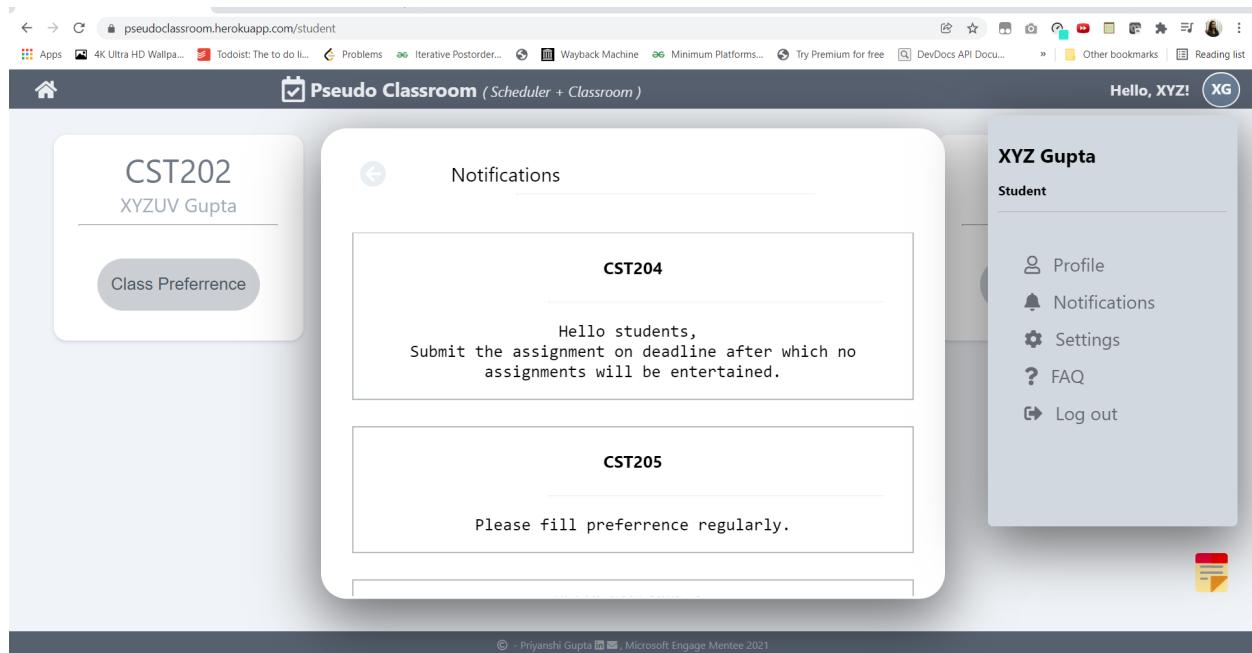
1. This is the way the teacher will send the message to all the students enrolled in that course.

The screenshot shows the Pseudo Classroom application running in a browser. The URL is [pseudoclassroom.herokuapp.com/teacher](https://pseudoclassroom.herokuapp.com/teacher). The page title is "Pseudo Classroom (Scheduler + Classroom)". A central modal window is open, prompting the teacher to "Send a broadcast message to all students of this course!". Inside the modal, there is a text area containing a message to students: "Hello Students, Submit the assignment on deadline after which no assignments will be entertained." Below the message, a success message says "Your Broadcast message has been sent to all students!!". There is a "Send" button at the bottom right of the modal and an "Edit" icon to its right. At the bottom of the screen, a footer bar displays the copyright information "© - Priyanshi Gupta 📩, Microsoft Engage Mentee 2021".

2. This is how unread notifications will be shown to the students on their profiles.

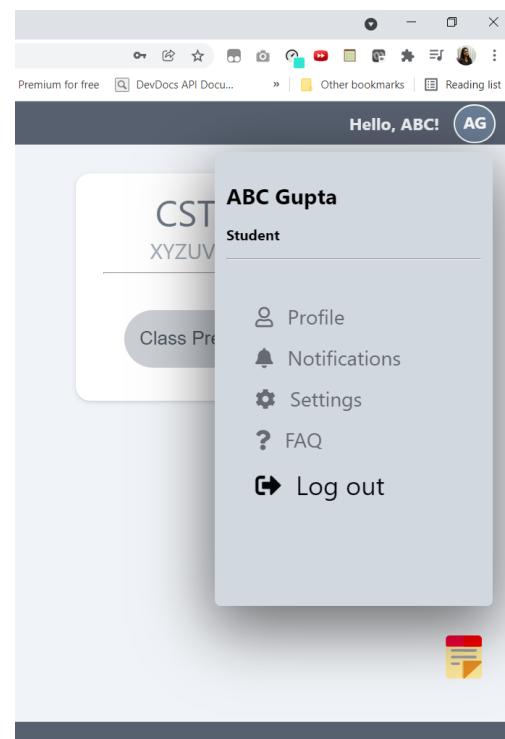
The screenshot shows the Pseudo Classroom application running in a browser. The URL is [pseudoclassroom.herokuapp.com/student](https://pseudoclassroom.herokuapp.com/student). The page title is "Pseudo Classroom (Scheduler + Classroom)". On the left, three course cards are visible: CST202 (XYZUV Gupta), CST203 (XYZUV Gupta), and CST205 (XYZUV Gupta). Each card has a "Class Preference" button. On the right, a sidebar for "XYZ Gupta" (Student) is open, showing a list of notifications: "Profile", "Notifications" (with a red dot indicating unread), "Settings", "FAQ", and "Log out". The sidebar also features an "Edit" icon. At the bottom of the screen, a footer bar displays the copyright information "© - Priyanshi Gupta 📩, Microsoft Engage Mentee 2021".

3. And when the student opens notification marks read and hence the red alert on the notification icon goes off.



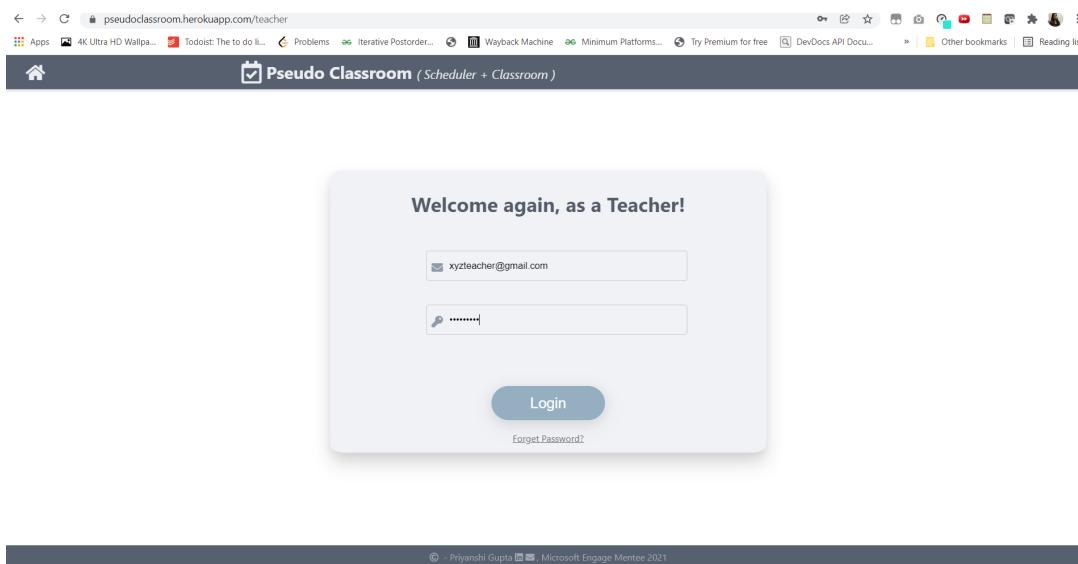
This is the logout option from the profile for the user.

The FAQ button can be a static page displaying some frequently asked questions about the app. But I couldn't get time to make that. It is just a coming soon page for now.



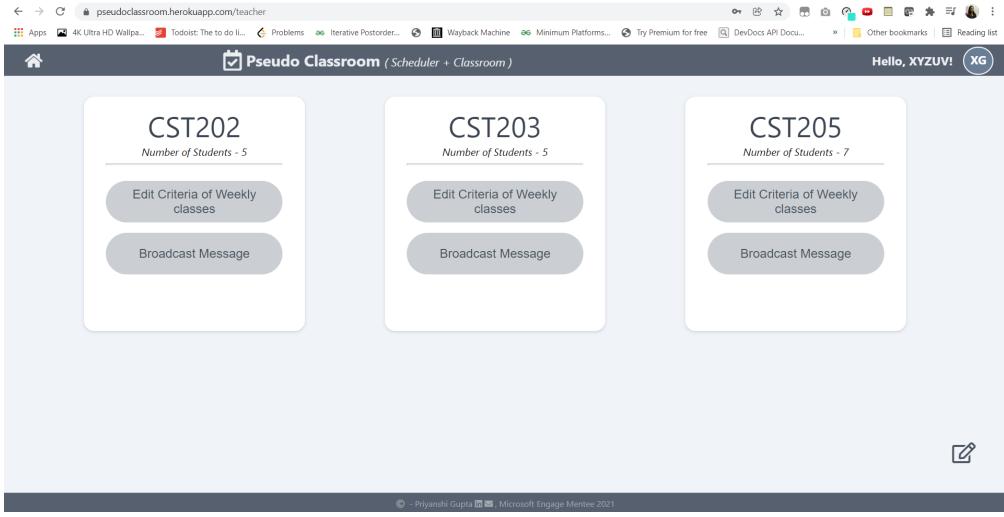
## Teacher Login Portal

1. This is how teachers can enter credentials to log in to the app and do the functionalities associated with it.

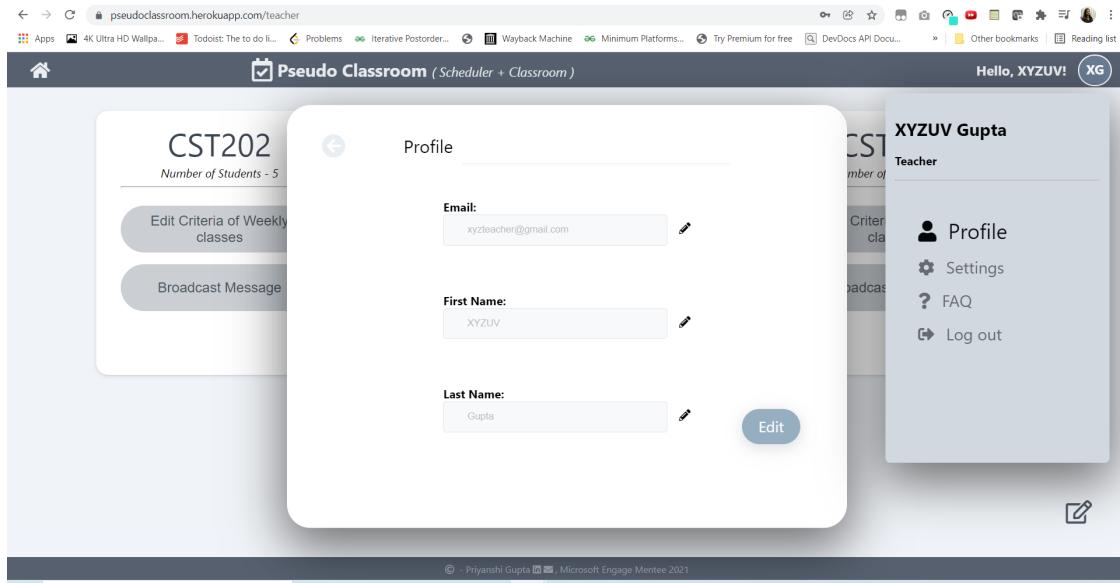


## Dashboard of the teacher.

(fetches the courses which this particular teacher teaches and show Each course will consist CourseName, number of students enrolled in that course, first button takes **criteria of how to take classes and requirements** if the class is In-Person from the teachers for the weekly classes of that course and the second button is to send a **broadcast message** to all the students of this course.)



This is how we can see the profile box, it is the same as the student other than that there is not any notification option for the teachers. Else everything is the same as student profile has like Edit options, Settings to change password and a logout.



This is first shown when teachers haven't given the criteria for this week to choose the option In-Person or Remote class (shown in fig.1 below) and upon

choosing that other requirement (shown in fig 2. Below ) will be asked to the teachers to specify for further scheduling.

1.

The screenshot shows a web browser window for 'Pseudo Classroom (Scheduler + Classroom)'. The URL is [pseudoclassroom.herokuapp.com/teacher](https://pseudoclassroom.herokuapp.com/teacher). The page displays a form for specifying class modes. Under 'Thursday Class', it asks 'What mode do you prefer for Day class?' with two options: 'In-Person' (radio button) and 'Remote' (radio button). A 'Send' button is located to the right of the radio buttons. Below this, under 'Friday Class', it says 'List of Students attending the Class In-Person or Remotely.' There are two buttons: 'Remote' and 'In-Person'. A pencil icon is at the bottom right of the Friday class section. The footer of the page includes a copyright notice: '© - Priyanshi Gupta 📧, Microsoft Engage Mentee 2021'.

2.

This screenshot shows the same 'Pseudo Classroom' interface as above, but with additional fields. Under 'Thursday Class', it now asks 'What mode do you prefer for Day class?' with 'In-Person' selected (radio button) and 'Remote' unselected. It also includes a new section asking 'Please, provide the following Criteria also !' with fields for 'Vaccination-status' (a dropdown menu labeled 'Select status:'), 'Parent's Concern:' (radio buttons for 'Yes' and 'No'), and '% of Students you want in class:' (a slider input). A 'Send' button is located at the bottom right of the Thursday class section. A pencil icon is at the bottom right of the page. The footer remains the same: '© - Priyanshi Gupta 📧, Microsoft Engage Mentee 2021'.

Now, if the teacher has given the Criteria then the teacher will be shown the list of students attending it remotely or In-Person with their email-Ids.

In this first one is empty because for that no student has given preference and second shows the emails of the students remote and In-Person attending the class

The screenshot shows a web browser window for the 'Pseudo Classroom' application. The URL is [pseudoclassroom.herokuapp.com/teacher](https://pseudoclassroom.herokuapp.com/teacher). The page displays a table titled 'Criteria for Weekly classes for this course' with columns for 'Remote' and 'In-Person'. Below this, under 'Thursday Class', is a table titled 'List of Students attending the Class In-Person or Remotely.' with columns for 'Remote' and 'In-Person', listing student email addresses.

Remote	In-Person

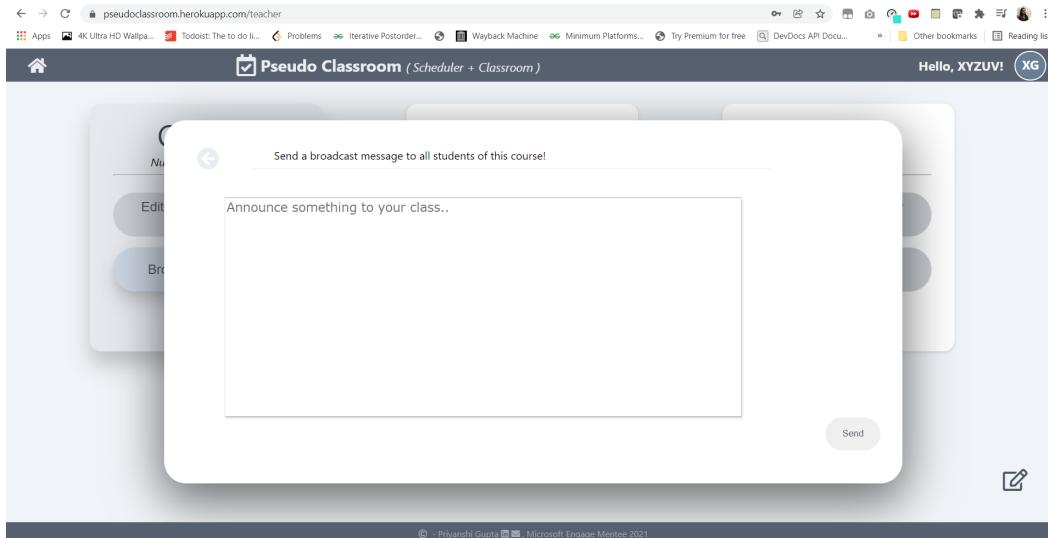
  

Remote	In-Person
<ul style="list-style-type: none"><li>• xyz123@gmail.com</li><li>• uvw123@gmail.com</li><li>• lmn123@gmail.com</li></ul>	<ul style="list-style-type: none"><li>• pqr123@gmail.com</li><li>• jkl123@gmail.com</li></ul>

At the bottom of the page, there is a copyright notice: © – Priyanshi Gupta, Microsoft Engage Mentee 2021.

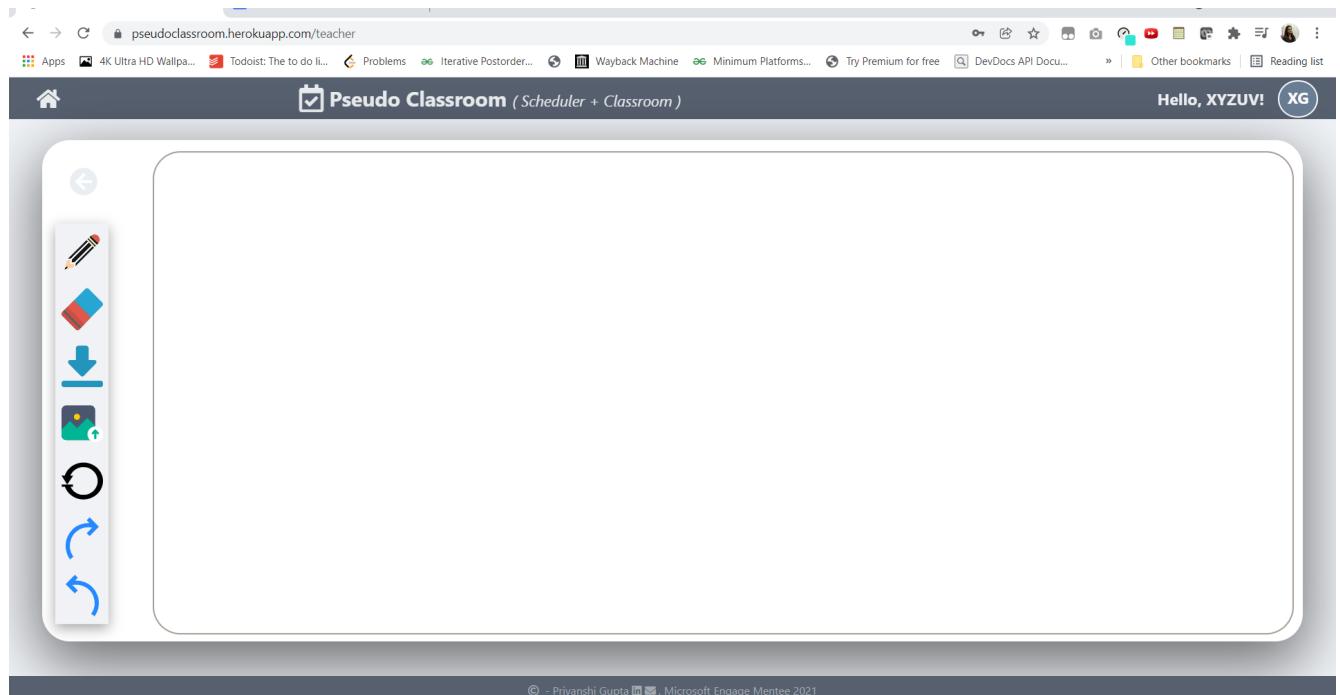
### Broadcast Message

This feature is to send a message to all the students enrolled in this course which could be an announcement for the students and shown in notifications of the student.



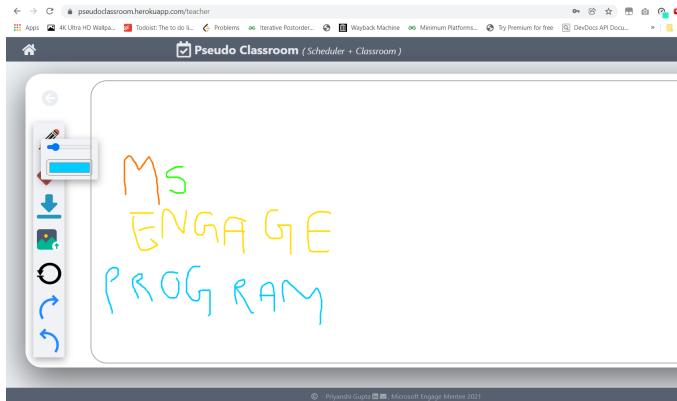
## White board for the teacher

This is the whiteboard for the teacher to teach students more smoothly by only using this same app that schedules the classes. This will help students teach students virtually by teaching them over this upon screen sharing in case no whiteboard is handy with him/her.

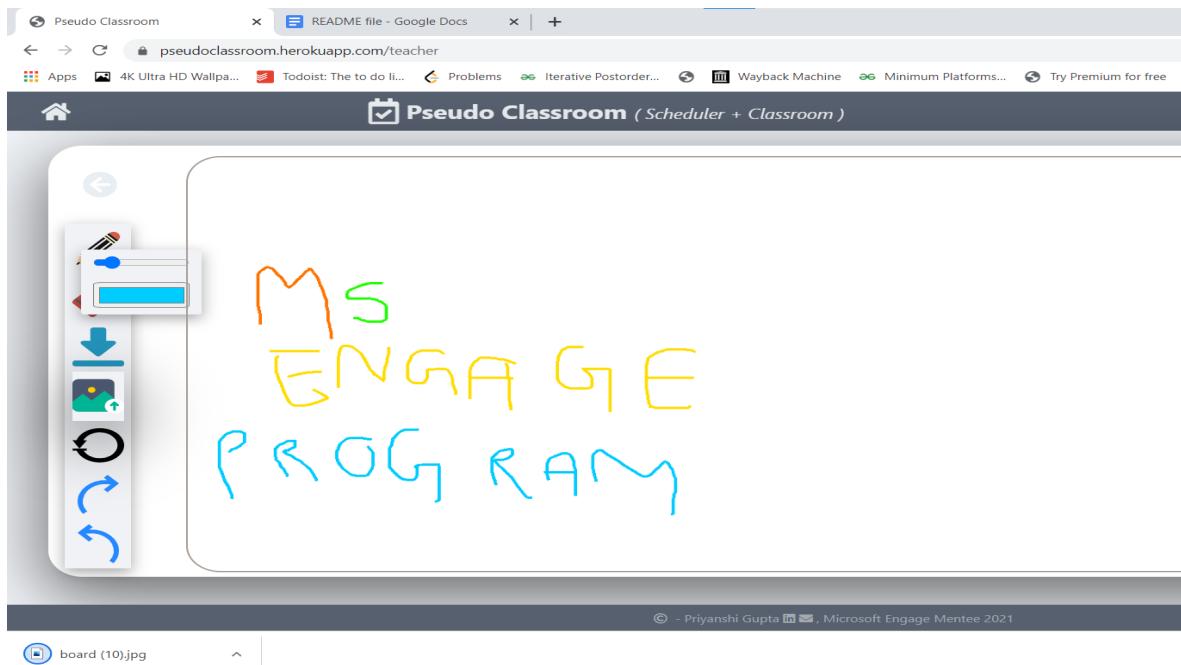


This consist of feature like -

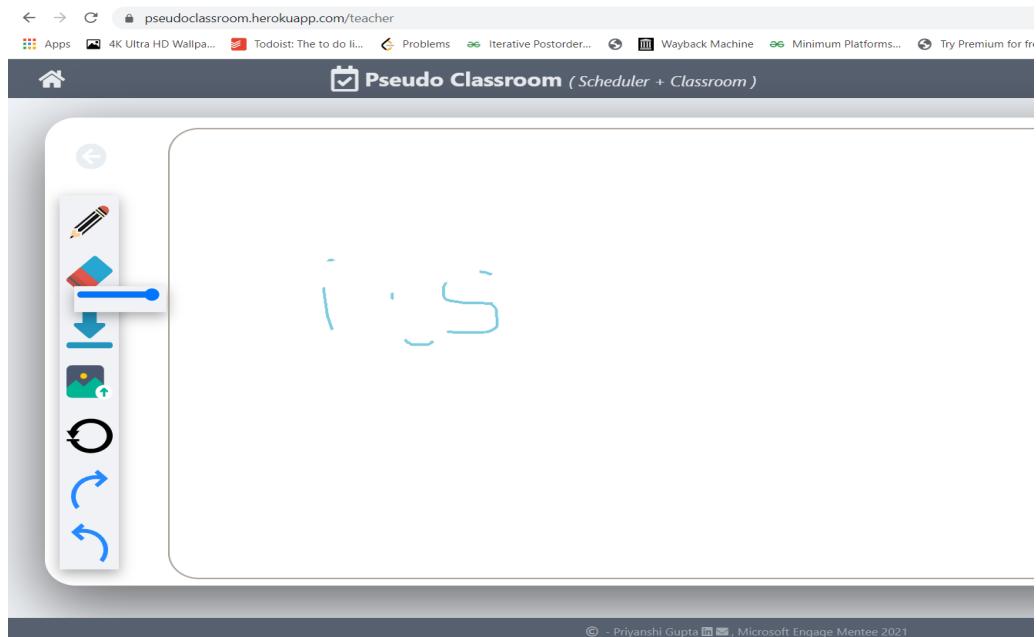
1. Writing and erasing anything using a pencil whose color and width are adjustable.



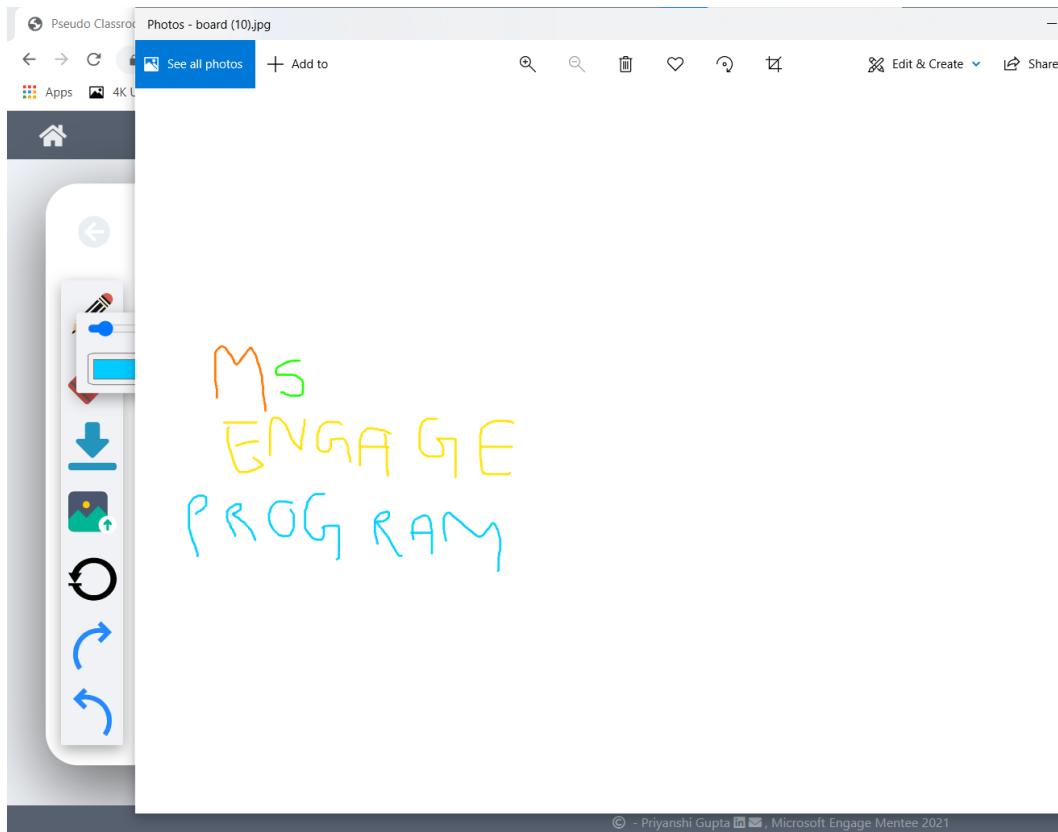
2. Teachers can also download the board image to send to students in case they require it. (can be on the bottom of the fig. as board.jpg)



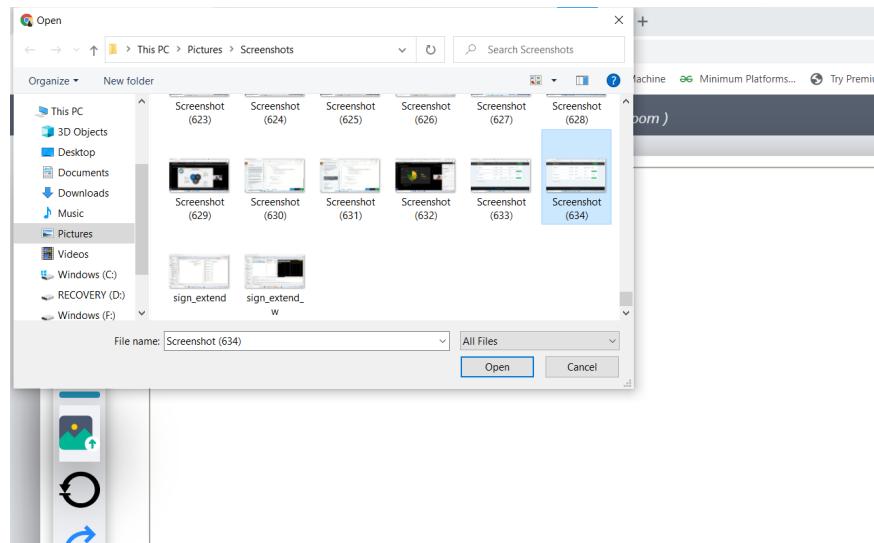
3. Erasing feature where also width is adjustable by the teacher.



4. The Image download can be viewed anywhere which can support image as shown below,



5. This is how images can be uploaded as well from the desktop over this board to explain something in a much better way. (shown below)



This is how the image is uploaded and fits the whole canvas. Now, the teacher can draw anything anywhere on the image.

# Database

I used MongoDB for the database purpose which has three Collections as **Students, Courses, and Teachers.**

## Student Schema-

```
const studentSchema=new Schema({  
    firstName:{  
        type:String,  
        required:true,  
        trim:true,  
    },  
    lastName:{  
        type:String,  
        required:false,  
        trim:true,  
    },  
    email:{  
        unique:true,  
        type:String,  
        required:true,  
    },  
    password:{  
        type:String,  
        required:true,  
        minlength:8,  
    },  
    courses:{  
        type:Array,  
    },  
    notifications :{  
        type:Object,  
    }  
},{  
    timestamps:true,  
})
```

## Teachers Schema-

```
const teacherSchema=new Schema({
```

```

firstName: {
    type:String,
    required:true,
    trim:true,
},
lastName: {
    type:String,
    required:false,
    trim:true,
},
email: {
    unique:true,
    type:String,
    required:true,
},
password: {
    type:String,
    required:true,
    minlength:8,
},
courses: {
    type:Array,
},
}, {
    timestamps:true,
}) ;

```

### Courses Schema-

```

const courseSchema=new Schema({
courseId:{
    type:String,
    unique:true,
},
teacherId:{
    type:String,
},
Enrolledstudents :{
    type:Array,
},
Weekdays :{

```

```

        type:Array,
    },
    WeeklyPreferences:{
        type:Array,
    },
    teacherPreferenceCriteria:{
        type:Array,
    }
}, {
    timestamps:true,
}
)

```

These three are the Schemas of my DB. which helped in all the functionalities.

Now, These are the Screenshots of my DataBase stored in MongoDB Atlas(Cloud Service).

## 1. Courses Collections

The screenshot shows the MongoDB Cloud Atlas interface. On the left, there's a sidebar with tabs for 'Scheduler-app', 'Atlas' (which is selected), and 'Realm'. Under 'Atlas', there are sections for 'DEPLOYMENT', 'Data Lake', 'DATA SERVICES', 'Triggers', 'Data API (PREVIEW)', and 'SECURITY'. The 'Data API' section has a green 'PREVIEW' button. In the main area, under 'myFirstDatabase', there's a 'courses' collection. The collection details show a size of 2.89KB, 5 total documents, and 72KB total index size. Below this, there are tabs for 'Find', 'Indexes', 'Schema Anti-Patterns', 'Aggregation', and 'Search Indexes'. A search bar at the top says 'Filter { field: 'value' }'. At the bottom, there's a 'QUERY RESULTS 1-5 OF 5' section displaying two document snippets. The first snippet is:

```

_id: ObjectId("61a1261e0c1c3c7242437a56")
courseId: "C101"
teacherId: "sbtteacher@mail.com"
> EnrolledStudents: Array
> Weekdays: Array
> WeeklyPreferences: Array
> teacherPreferenceCriteria: Array
createdAt: 2021-11-26T13:23:59.790+00:00
updatedAt: 2021-11-26T19:08:56.261+00:00
__v: 0

```

The second snippet is very similar, just with a different \_id value. The URL in the browser is <https://cloud.mongodb.com/v2/618f2d1c4e5ef00e593ca751#metrics/replicaSet/618f4297d8a6915f71ab1585/explorer/myFirstDatabase/courses/find>.

## 2. Students Collections

The screenshot shows the MongoDB Atlas interface. On the left sidebar, under 'Databases', 'myFirstDatabase' is selected, revealing collections like 'courses', 'students', and 'teachers'. The 'students' collection is currently active, displaying its details: Collection Size: 6.13kB, Total Documents: 7, Indexes Total Size: 72kB. Below this, there are tabs for 'Find', 'Indexes', 'Schema Anti-Patterns', 'Aggregation', and 'Search Indexes'. A 'FILTER' bar contains the query '{ Field: 'value' }'. The main area shows 'QUERY RESULTS 1-7 OF 7' with two document snippets. The first snippet is for a student named 'Amit' with ID '\_id: ObjectId("61a12c48bb1c3c7242437a60")'. The second snippet is for a student named 'Xyz' with ID '\_id: ObjectId("61a12cd48bb1c3c7242437a62")'. Both snippets show fields such as firstName, lastName, email, password, courses, notifications, and StickyNotes.

### 3. Teachers Collections

This screenshot is identical to the one above, showing the 'myFirstDatabase.students' collection in the MongoDB Atlas interface. It displays the same 7 documents, each with fields like firstName, lastName, email, password, courses, notifications, and StickyNotes. The interface includes tabs for 'Find', 'Indexes', 'Schema Anti-Patterns', 'Aggregation', and 'Search Indexes', along with a 'FILTER' bar and a results table.

This is the Dashboard of my app hosted on HerokuApp.

dashboard.heroku.com/apps/pseudoclassroom

Apps 4K Ultra HD Wallpa... Todoist: The to do li... Problems Iterative Postorder... Wayback Machine Minimum Platforms... Try Premium for free DevDocs API Docu... Other bookmarks Reading list

Salesforce Platform

HEROKU

Jump to Favorites, Apps, Pipelines, Spaces...

Personal > pseudoclassroom

Open app More

Overview Resources Deploy Metrics Activity Access Settings

Get a complete visualization of your app in a team-based continuous delivery environment with [Heroku Pipelines](#). Hide Create a Heroku Pipeline

Installed add-ons \$0.00/month Configure Add-ons

There are no add-ons for this app. You can add add-ons to this app and they will show here. [Learn more](#)

Dyno formation \$0.00/month Configure Dynos

This app is using free dynos

web npm start ON

Collaborator activity Manage Access

gupta.priyanshi2006@gmail.com 29 deploys

Latest activity All Activity

gupta.priyanshi2006@gmail.com: Deployed 8a8f653e Today at 1:57 AM · v31

gupta.priyanshi2006@gmail.com: Build succeeded Today at 1:56 AM · [View build log](#)

gupta.priyanshi2006@gmail.com: Deployed 24ef8393 Today at 1:07 AM · v30

gupta.priyanshi2006@gmail.com: Build succeeded Today at 1:06 AM · [View build log](#)

gupta.priyanshi2006@gmail.com: Deployed 523dbe8b Today at 12:56 AM · v29

gupta.priyanshi2006@gmail.com: Build succeeded Today at 12:53 AM · [View build log](#)