

Class Scribe User Manual



Class Scribe

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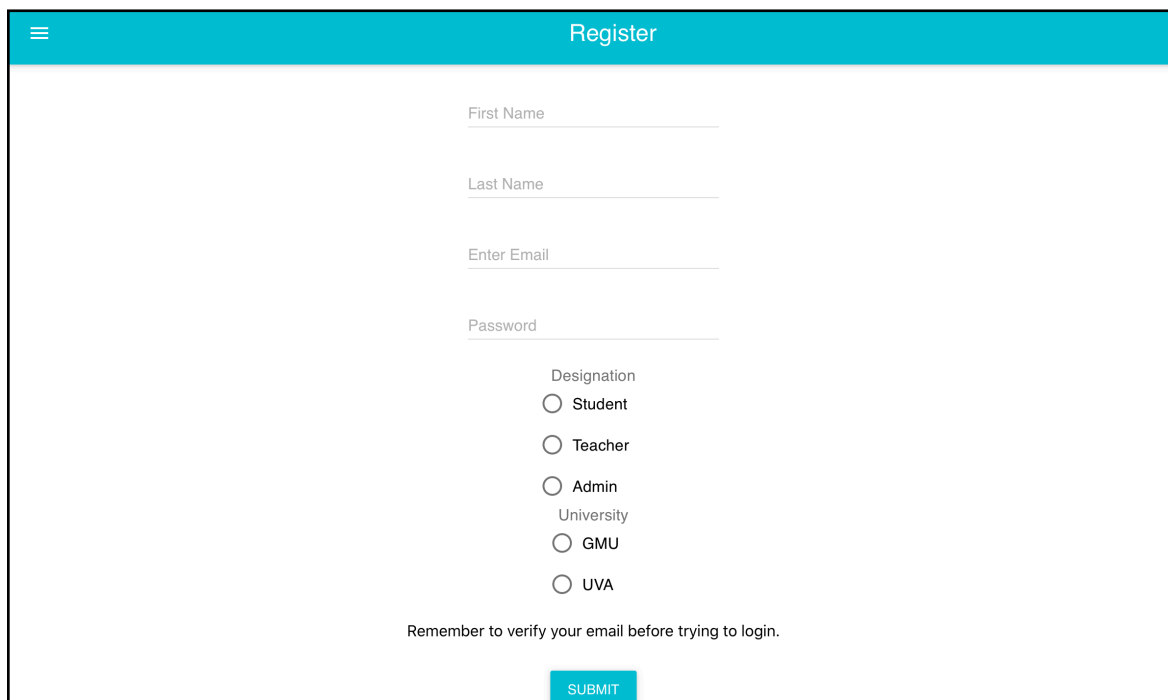
INTRODUCTION AND OVERVIEW

Class Scribe is a hardware and web service based solution to many of the problems of note-taking. In this user manual, you will learn how to use the Class Scribe Lamp to record your lectures and scan your notes. You will also learn how to use the web application to view these notes, lecture audio, transcriptions, and much more (including tasks reserved for Professors).

The product is usable at [**http://classscribe-fe.herokuapp.com**](http://classscribe-fe.herokuapp.com)

USER ACCOUNT REGISTRATION/SIGN-IN

To begin using the Class Scribe service, you will need to sign up for an account. This can be done immediately at the first page you visit at [**http://classscribe-fe.herokuapp.com**](http://classscribe-fe.herokuapp.com), instead of “login” click “click here to register”. You will be presented with this screen where you will fill your relevant information.



The screenshot shows a web application registration page. At the top, there is a teal header bar with a hamburger menu icon on the left and the word "Register" in the center. Below the header, the form is centered on a white background. It contains four text input fields labeled "First Name", "Last Name", "Enter Email", and "Password". Below these fields are three radio button options for "Designation": "Student", "Teacher", and "Admin". Below the radio buttons are two more radio button options for "University": "GMU" and "UVA". At the bottom of the form, there is a line of text that reads "Remember to verify your email before trying to login." and a teal "SUBMIT" button.

(NOTE: For the purposes of testing, the secret key for signing up as an admin is, without quotes, “7’c\$DP\$f”)

Once you fill out this information to sign up, you will receive a confirmation email with a link you must click to verify your account. After that, you may visit the web app and log in.

ADMINISTRATOR COURSE ASSIGNMENT

If you have an administrator account, you have the ability to set course assignments, meaning you can designate a time and location as a classroom taking place, and assign a professor, course name, and the serial number of any 1 Class Scribe Lamp in that classroom. This course assignment is the backbone of the service, as without this a Lamp would not know where it is located and which class to categorize the notes it scans under (information important for viewing notes as well as setting up the network that shares notebooks).

To set a course assignment, sign in with your admin account to be presented with a grid of times available. Dragging your cursor across the day and times you want to set a course assignment for will present you with a modal where you can input more information such as if the course meets on multiple days, the email address of the professor, the name of the course, and the serial number of a single Lamp to be present in the course. Two classes cannot be made at the same time for the same building and room, and a class can only meet once per day. You can also use the

dropdown menus to see all the course assignments in the database.

Hello rahat@virginia.edu
COURSES
NOTEBOOKS
LOGOUT

Semester
Building
Room

Lamp Serial Number

	Mo.	Tu.	We.	Th.	Fr.
07:00					
07:15					
07:30					
07:45					
08:00					
08:15					
08:30					
08:45					
09:00					
09:15					
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12:15					
12:30					
12:45					
13:00					
13:15					
13:30					
13:45					
14:00					
14:15					

Semester

Course Name

Professor ID

Please enter a course name!

Please enter a professor ID!

Building Name

Room Number/Name

Please enter a building name!

Please enter a room!

MON

TUE

WED

THU

FRI

Meeting Times

Lamp Serial Number

7:45-11:00

SUBMIT

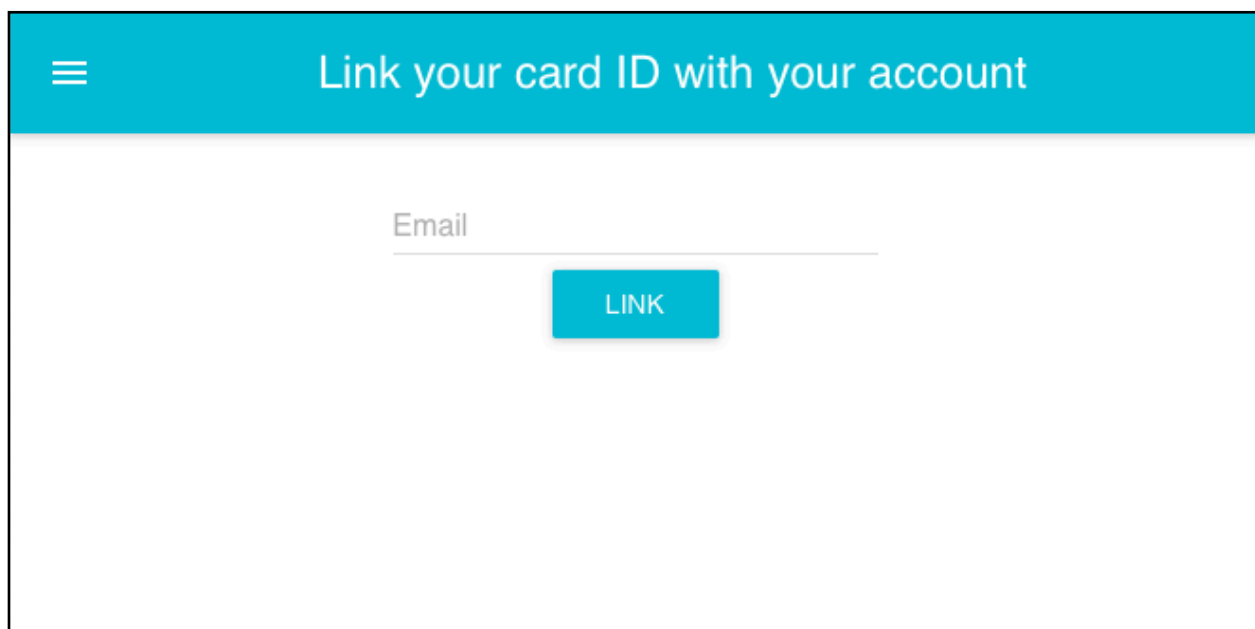
ADMINISTRATOR LAMP ASSIGNMENT

Once you have assigned a Lamp to a course, all you have to do for the remaining Lamps to be assigned to the course is place them in proximity to the master Lamp that you assigned. Two Lamps cannot be assigned to two different buildings or rooms at the same time. Therefore, just taking all the Lamps to be placed in a certain classroom and placing them in that classroom, will be enough to set them up and

assign them all to the course. When a master Lamp is plugged in for the first time or if a Lamp's assignment changes in the admin portal, the Lamp will broadcast an audio signal to the nearby Lamps notifying them of where they are located. With this information, the Lamps can absorb the course assignments based on their location.

STUDENT ID ENROLLMENT

To use the Class Scribe Lamps properly, a student must enroll their ID card with the Class Scribe service. This can be done by tapping your ID onto the head of the Lamp. If the Lamp does not find your ID in the Class Scribe backend, it will display a QR code for you to scan using your phone. Scanning this code will direct you to a webpage where you input your Class Scribe email address, and then your ID card has been linked with your Class Scribe account. Now you are ready to use the Lamp to take notes.



The screenshot shows a web interface with a teal header bar. On the left of the header is a white hamburger menu icon. To its right, the text 'Link your card ID with your account' is displayed in white. Below the header, the main content area has a white background. It features a text input field with the placeholder text 'Email' in a light gray font. Directly beneath the input field is a teal rectangular button with the word 'LINK' in white, uppercase letters.

NOTE-TAKING WITH THE LAMP

To take notes with the Lamp, all you have to do is tap your ID onto the head of the Lamp, position your notes in view of the Lamp, and begin. The Lamp will automatically take pictures of your notes and record the lecture audio in the background. This only works if you take notes during a valid course assignment.

VIEWING NOTES

To view your notes taken with the Lamp, visit the web app and sign in as a student. You will be presented with a dashboard that looks like the following:

The screenshot displays the Lamp web app interface. At the top, a blue header bar contains the text "Hello rm4mp@virginia.edu COURSES NOTEBOOKS LOGOUT". The main content area is divided into three sections:

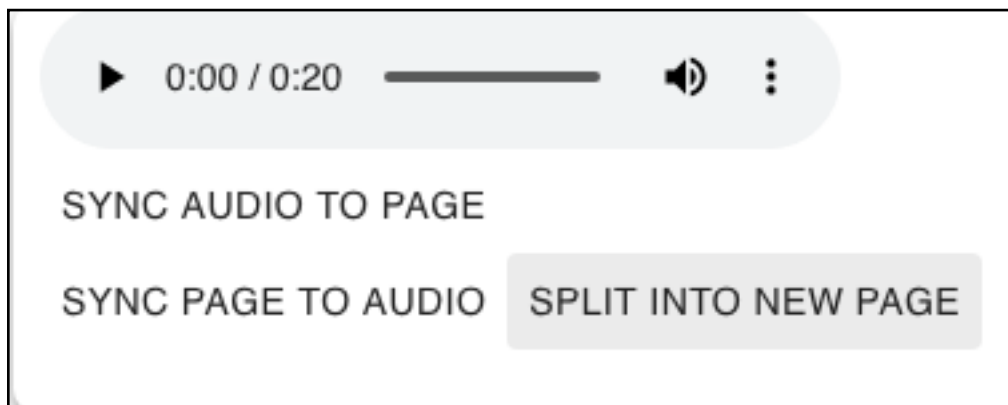
- Notebooks:** On the left, a sidebar shows the user's name "rm4mp@virginia.edu's CustomerMeeting" and a "Private" toggle. Below this are buttons for "Page 1" and "Page 2". At the bottom of the sidebar are two buttons: "YOUR NOTEBOOKS" and "SAVED NOTEBOOKS".
- Note Content:** The central area displays a handwritten note titled "Orthogonal Transformations". The note includes definitions, properties, and examples of orthogonal matrices. Key points include: "An $n \times n$ matrix A is an orthogonal transformation I.F.F. (if and only if) it has n mutually perpendicular rows or columns with unit length", "rows must be independent (can't be multiples of each other)", "to be perpendicular, the dot product must be 0", "rows/columns must have unit length", and "The rows or columns of A form an orthonormal basis of \mathbb{R}^n ". It also includes the formula for the dot product $x \cdot y = \sum_{i=1}^n x_i y_i$ and the condition $x \cdot y = 0 \iff x \perp y$ (perp.).
- Transcript:** On the right, a section titled "Transcript" shows the audio transcription of the note: "The quick brown fox jumped over the lazy dog."

At the bottom right, there is a media player interface with a progress bar showing "0:00 / 0:20" and buttons for "SYNC AUDIO TO PAGE", "SYNC PAGE TO AUDIO", and "SPLIT INTO NEW PAGE".

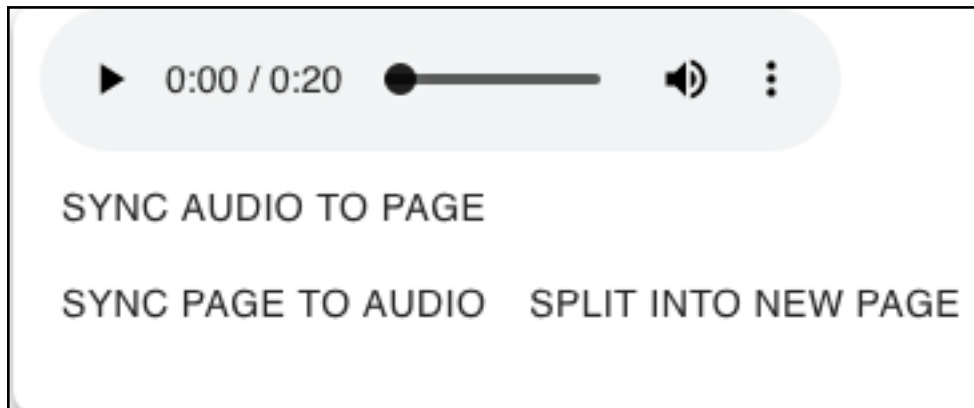
Click on the notebook you wish to view the notes for, and then click on the pages. Within each page, there is a slideshow of snapshots that show the page as it was constructed through time. The final snapshot represents the page as it looked in its final form.

MARKING A PAGE SNAPSHOT AS A NEW PAGE

It is possible that the Lamp might fail to recognize a new page during note-taking. This is why there is a button in the bottom right corner of the student dashboard of the Class Scribe web app where you can denote a page snapshot as actually being a brand new page. Clicking it will split out that snapshot and the remaining snapshots in that page, into a new page.

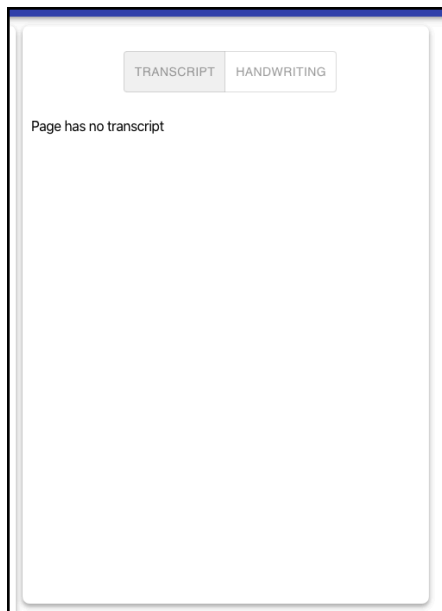


AUDIO AND TIME TRAVEL



The Class Scribe web app also offers many features for audio playback. The bottom right menu lets you pause, play, seek, adjust volume, and download the audio file. There is also an option to “sync audio to page”, which means based on which page and snapshot you are looking at the audio will seek automatically to that point in time and be synced. This means you can look at your notes and hear what your professor was saying at the time you wrote a certain note. “Sync page to audio” lets you travel to a page snapshot that was being written by you at the time of what you are hearing in the audio was being spoken. This means you can see what you were writing at the time your professor was speaking a certain phrase.

TRANSCRIPTION AND HANDWRITING



In the top right corner of the student dashboard, there is a tabbed view where you can switch between the audio transcript of your lecture and the handwriting detected from the page you are currently viewing.

SENDING NOTES TO PROFESSORS



To send a page to a professor as a student, you can click the paper airplane icon on the page. This is useful to send in class activities or worksheets to the professor for grading.

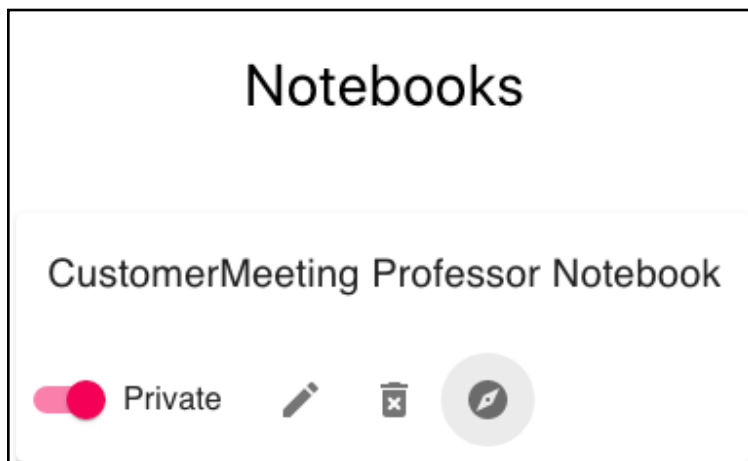
EXPORTING NOTES



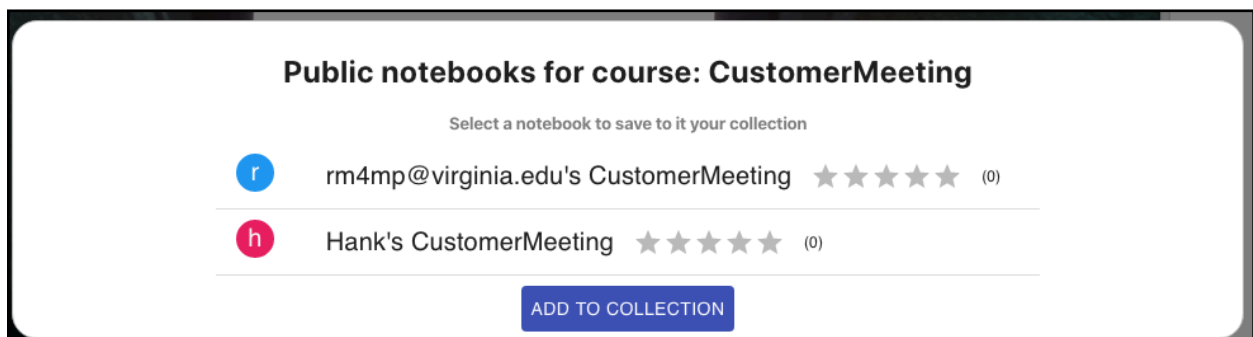
To export a page from your notebook as a JPG, you can press the download icon present on the card for every page in your notebook on the left section of your dashboard. The final snapshot of the page you export will be saved as a JPG.

VIEWING, ADDING, AND RATING OTHER STUDENTS' PUBLIC NOTEBOOKS

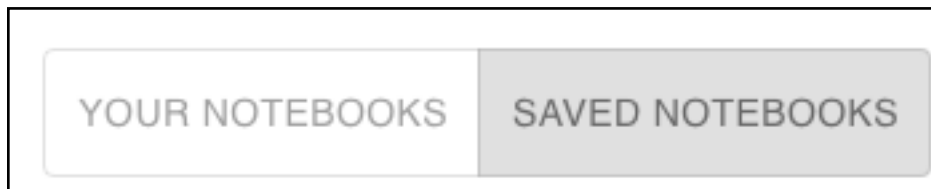
To view notebooks from other students for a course that you are enrolled in, you can click on the compass icon on your notebook for a certain course.



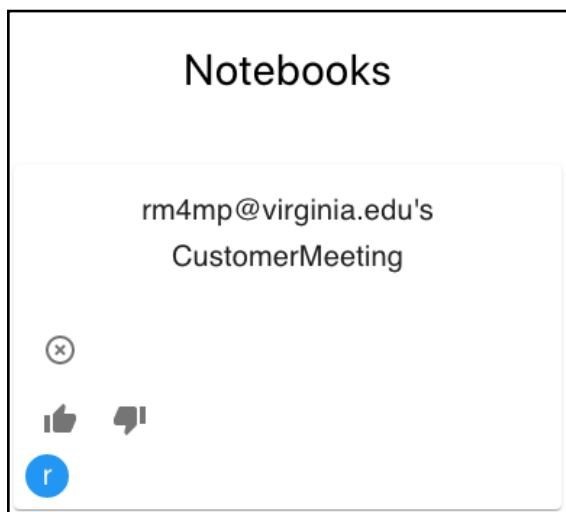
This will pop up a view of all the notebooks that students in the same course have chosen to share (notebooks that have been designated as public). You can then click as many as you would like to add to your own collection for studying.



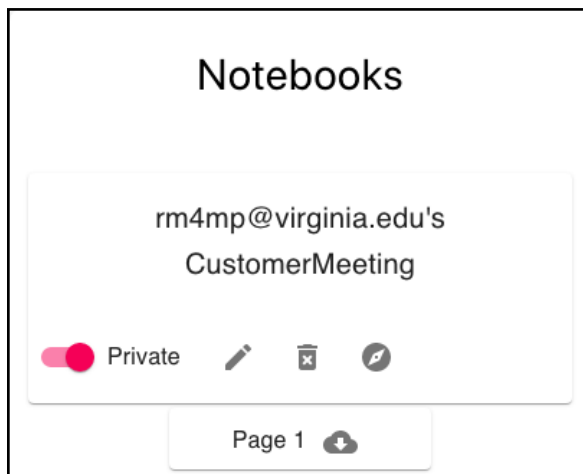
You can also see the ratings for each publicly available notebook to better inform you on which notebook is most worthwhile to study with. You can access your saved public notebooks by switching to the “saved notebooks” tab in the Notebooks view on the left of your dashboard.



Finally, to rate these public notebooks, you can either “thumbs up” or “thumbs down” the notebook. To remove the notebook from your collection, you can click the “x” icon.

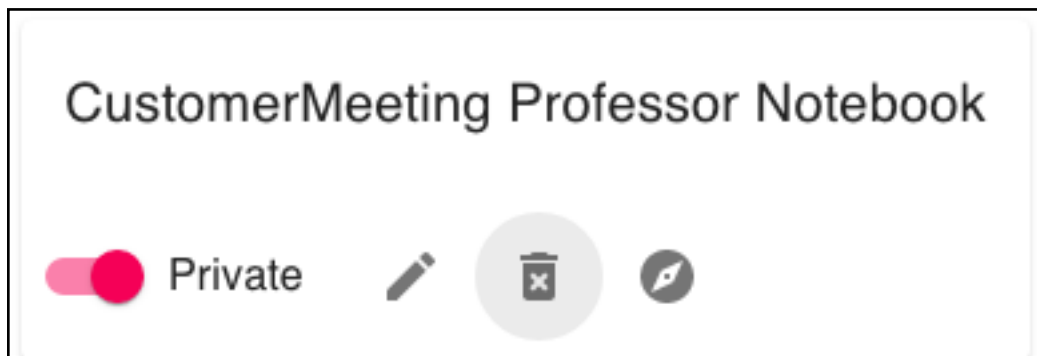


SETTING YOUR NOTEBOOKS' PRIVACY STATUS



To change the privacy status from public to private or vice versa (to allow other students to be able to find it when they search for notebooks in the same course), you can toggle the magenta switch on any of your notebook cards.

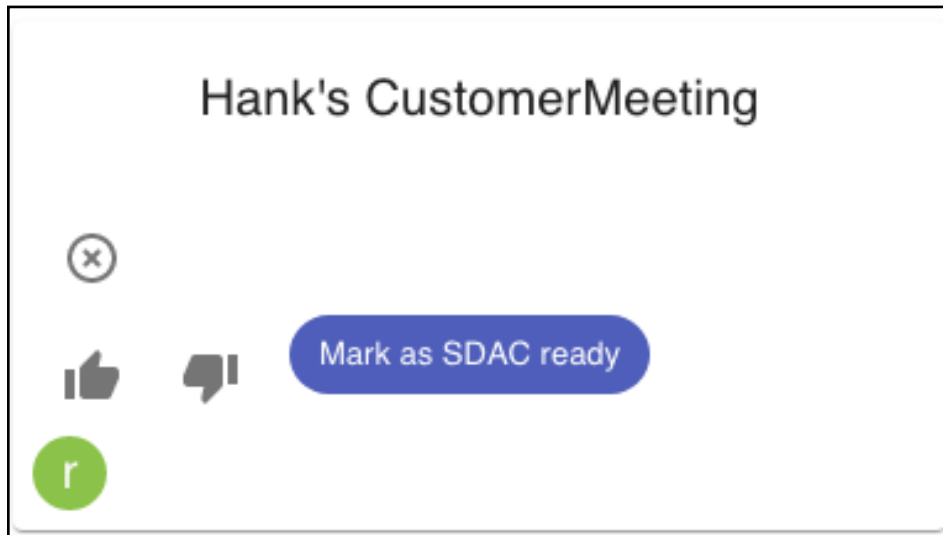
DELETING/RENAMING YOUR NOTEBOOKS



To rename your notebook, you can click the pencil icon on the notebook card present on the left section of your dashboard. To delete the notebook, click on the trash can icon.

LABELING NOTEBOOKS AS SDAC-READY

As a professor, you have the capability to mark shared notebooks as “SDAC ready”. To do this, go to your list of saved notebooks and you will be presented with notebook cards of other students which you can then label as SDAC ready.



CONCLUSION

The Class Scribe dashboard was designed to be as intuitive as possible, with minimal obstruction to the actual task of note taking. Everything accessible in the interface is purely visual, meaning there are no hidden submenus or gestures and such that make functionality difficult to access. We hope you enjoy using Class Scribe as much as we did designing, developing, and deploying it.