

CULib Study Spot

Find your study spaces

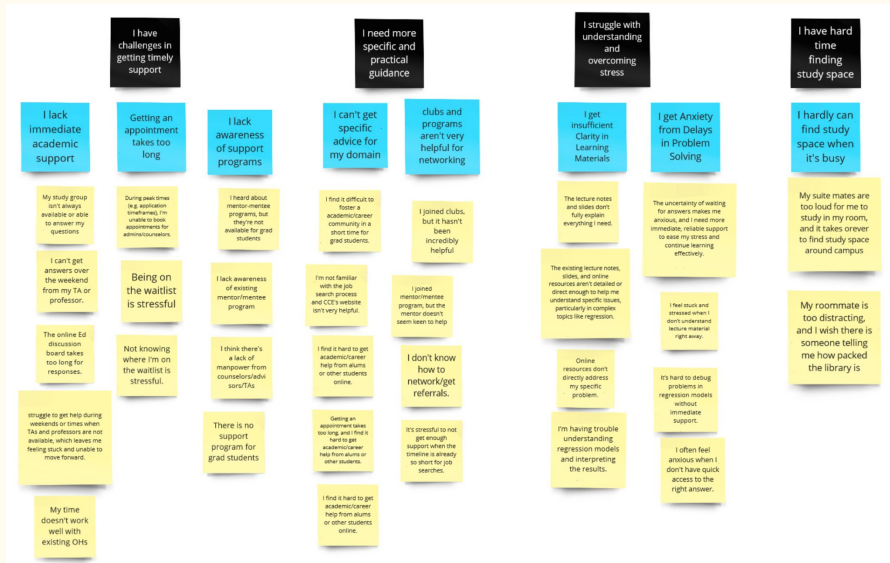
- Problem Statement
- Design Concept
- Solution Evaluation
- Demo



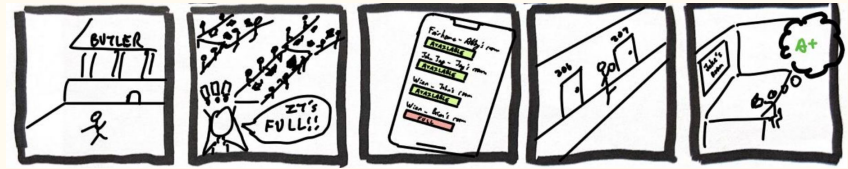
Problem Statement

Students struggling to find study space on campus

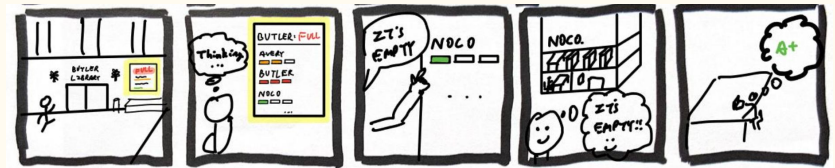
Design Concept



✗ Room Sharing app



✓ Library Occupancy app



2 fold problem

Students:

- Help students find study spaces easier
- Ensure upkeep for library capacity meter

Librarians:

- Intuitive frontend UI to remove reliance CUIT




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LIBRARIES OPEN NOW

Click on a location for its full schedule.

Avery Architectural & Fine Arts Library	 13%	9:00 AM - 11:00 PM	Library Information Office	9:00 AM - 5:30 PM
Barnard College Library		8:00 AM - 2:00 AM	Mathematics Library	9:00 AM - 11:00 PM
Business & Economics Library in Uris		9:00 AM - 11:00 PM	Music & Arts Library (Wiener)	9:00 AM - 9:00 PM
Butler Library Building Hours	 23%	OPEN	Rare Book & Manuscript Library	10:00 AM - 4:00 PM
Butler Library Circulation Hours		9:00 AM - 9:00 PM	S. Steven Pan '88 Business Library (Manhattanville)	10:00 AM - 5:00 PM
C.V. Starr East Asian Library		CLOSED	Science & Engineering Library	OPEN
Columbia University Archives		10:00 AM - 4:00 PM	Social Work Library	10:00 AM - 8:00 PM
Health Sciences Library		CLOSED	Teachers College	9:00 AM - 10:00 PM
Journalism Library		10:00 AM - 5:00 PM	The Burke Library at Union Theological Seminary	9:00 AM - 10:00 PM
Law Library		OPEN		
Lehman Social Sciences Library	 9%	9:00 AM - 3:00 AM		

Prototype -Students

FIND YOUR STUDY SPACES

Current Date: 12/10/2024 (Saturday)				
Library Name	Seat Occupancy	Quiet or Talk Area	Best Floor	Open Hours
Avery Architectural & Fine Arts Library	80%	Quiet	2nd	9 AM – 9 PM
Barnard College Library	82%	Quiet & Talk	Not Available	9 AM – 10 PM
Burke Library at Union Theological Seminary	55%	Quiet	3rd	9 AM – 10 PM
Business & Economics Library in Uris Butler Library	45%	Talk	1st	9AM – 11 PM
Lehman Social Sciences Library	49%	Quiet & Talk	2nd, 5th	24h
Science & Engineering Library	58%	Quiet & Talk	2nd	9 AM – 11 PM
Teachers College	45.3%	Talk	2nd	9 AM – 3 PM

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Butler Library

[«Previous Library](#)

[Next Library](#)

Each Floor	Seat Occupancy
2nd Floor (Talk)	48% (Average)
3rd Floor (Quiet)	88% (Busy)
4th Floor (Talk)	67% (Busy)
5th Floor (Quiet)	45% (Average)
6th Floor (Quiet)	81% (Busy)

Best Floor: 2nd Floor(48%), 5th Floor(45%)

Booking study rooms: [4th Floor](#)

Open Hours: 24 hours

[HOME PAGE](#)

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Butler Library

[←Return](#)

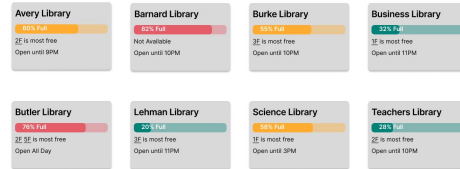
4th Floor

Each Room	Seat Occupancy
Room 403A	N/A (Study Rooms)
Room 404	N/A (Study Rooms)
Room 405	N/A (Study Rooms)
Room 407	N/A (Study Rooms)
Room 408	N/A (Study Rooms)
Room 409A	N/A (Study Rooms)

Booking Study Rooms

[HOME PAGE](#)

FIND YOUR STUDY SPACES



Barnard College Library

Suggest Libraries:

Business Library
32% Full
 1F is most free
 Open until 11PM

Lehman Library
20% Full
 2F is most free
 Open until 11PM

Teachers Library
28% Full
 2F is most free
 Open until 10PM

Each Floor	Seat Occupancy
1st Floor	96% Full
2nd Floor	86% Full
3rd Floor	70% Full
4th Floor	76% Full

Best Floor: Not Available

Open Hours: 9AM - 9PM

[Home Page](#)

Solution Prototype -Librarians

The screenshot shows the 'CULib Study Spot Plugin' settings page. On the left is a dark sidebar with a menu including 'My Home', 'Stats', 'Upgrades', 'My Mailboxes', 'Posts', 'Media', 'Pages', 'Comments', 'Feedback', 'Jetpack', 'WooCommerce', 'Appearance', 'Plugins' (highlighted), 'Users', 'Tools', 'Settings', and 'Collapse menu'. At the bottom of the sidebar is a button 'Add new site' with the URL 'https://wordpress.com/sites/'. The main content area has a title 'CULib Study Spot Plugin' with 'Contact list' and 'Guide pdf' buttons. Below the title is a 'Library name' section with a red '90% free' badge, the text '2F is most free', 'Open until 11:00pm', and 'Closed on Xmas Holiday'. To the right is a list of settings: 'Library' (checked), 'Capacity meter' (checked), 'Best floor' (checked), 'Open until' (checked), and 'Closed on Xmas holiday' (checked with a dropdown menu). A 'More settings' link is at the bottom right.

Site Title
testtemp1.wordpress.com

Free domain with an annual plan [Upgrade](#)

My Home

Stats

Upgrades Free

My Mailboxes

Posts

Media

Pages

Comments

Feedback

Jetpack

WooCommerce

Appearance

Plugins

Users

Tools

Settings

Collapse menu

Add new site
https://wordpress.com/sites/

CULib Study Spot Plugin

Contact list Guide pdf

Library name

90% free

2F is most free

Open until 11:00pm

Closed on Xmas Holiday

- ☒ Library
- ☒ Capacity meter
- ☒ Best floor
- ☒ Open until
- ☒ Closed on Xmas holiday

[More settings](#)

The screenshot shows the 'CULib Study Spot Plugin - more settings' page. The sidebar is identical to the previous screenshot. The main content area has a title 'CULib Study Spot Plugin - more settings'. Below the title is a table with 9 columns: Status, Method, Domain, File, Initiator, Type, Transfered, Size, and Latency. The table contains 6 rows of data. A 'Plugin home' link is at the bottom right.

Site Title
testtemp1.wordpress.com

Free domain with an annual plan [Upgrade](#)

My Home

Stats

Upgrades Free

My Mailboxes

Posts

Media

Pages

Comments

Feedback

Jetpack

WooCommerce

Appearance

Plugins

Users

Tools

Settings

Collapse menu

Add new site
https://wordpress.com/sites/

CULib Study Spot Plugin - more settings

Status	Method	Domain	File	Initiator	Type	Transfered	Size	Latency
200	GET	127.0.0.1:4430	monitor	vendor-core	plain	83948	0B	63ms
200	GET	127.0.0.1:4430	monitor	vendor-core	plain	83948	0B	7ms
200	GET	127.0.0.1:4430	monitor	vendor-core	plain	728	0B	10ms
200	GET	CULibrary.com	monitor	vendor-core	xhr	8338	0B	66ms
200	GET	127.0.0.1:4430	monitor	vendor-core	plain	83948	0B	66ms
200	POST	wordpress.com	monitor	vendor-core	xhr	5,5948	2B	72ms

[Plugin home](#)

Risks and Problems we faced in the Process

- **Technical risk:**
 - Not being able to retrieve CUIT WiFi data from AWS S3 ticket. Not being able to extract WiFi information for each room/floor of the library. CUIT WiFi feed is not stable
- **Design risk:**
 - Not being able to aesthetically differentiate ourselves from the current hours.library.columbia.edu page when technical risk manifests.
 - The interface needs to be intuitive and accessible, especially for users in a hurry. If users find it difficult to navigate or if the occupancy data isn't easily understandable, they may abandon the tool, indicating a potential mismatch with our design goal for users.
- **Scheduling/Project Management Risk:**
 - Not being able to manage the project after graduation, the project becomes obsolete and poorly maintained.
- **Wordpress/front-end dev portal usage intuition:**
 - Our primary objective is to bring back control to Librarians to independently manage front-end website read/write access and with cumulate relevant back-end dev members from CUIT. While we believe many of this can be tackled with a ReadMe documentation and wordpress website with the objective to simplify the entire process as much as possible, our final concern is that our proposed solution may still remain too complicated for a technology novice.

Demo Time