Development Project Summary: Silent Spaces Locator

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Project Overview

Silent Spaces locator aims to aid students and every-day workers in finding the perfect location to work or study through a real-time network and user interface. The objective of Silent Spaces is to gather GPS, time, and self-surveyed user data from smartphones to create a real-time network flow of certain locations all around Chicago, specifically quiet work spaces. Based on the GPS and time information, we can gather data and create a Headcount Network of users in a certain location and provide an estimate to the user on how crowded a location is. Additionally, through user surveyed data we can declare a space's Ambience Level in a certain location so that the user can understand the noise level at a location and see if it suits their particular needs as a work space before arriving. Using all of this data gathered, we can construct a Space Ambience Rating for each location to display to users looking for a space to work or study.

Project Domain

The domain of this project revolves around public space management. In unknown locations or densely populated areas like university campuses, they are finding quiet places for studying, reading, participating in meetings, and for a place to relax. "Silent Spaces" addresses the growing need for individuals who want a quiet place but can't locate them or reserve spaces for themselves. "Silent Spaces" solves the problem for users who need a peaceful place to get things done and find locations efficiently and fast rather than searching for a place themselves, which depending on time of day can take an extensive amount of time. While places like libraries, common areas, study rooms, and reading spaces are available for most people, they are very densely populated during the day, making it hard to find a quiet place that meets users' needs, like good wifi locations and low sound levels. The project's value lies in the ability to be able to provide users with a seamless experience in a comprehensive directory of silent spaces.

Definitions of Key Terms

Space: A physical area within a building or location designated for work or study purposes.

SpaceCards: Visual representations (cards) that provide summarized information about a particular space, located in the SpaceList and often used for browsing or selection purposes.

SpaceView: A detailed view or interface presenting comprehensive information about a specific space, including its location, amenities, and current status.

SpaceList: A catalog or list displaying available spaces, typically categorized and sortable by various criteria such as location, features, and ratings.

Organization: An entity such as a university, library, or company, within which spaces are managed and accessed by users. Organizations are essentially the owners of a registered space.

Dashboard: A centralized interface providing quick access to various features and functionalities of the app, typically customizable to suit user preferences. Home of the app's key functionality: Create/Find a Space, SpaceList, SpaceViews, SpaceList, etc.

Find a Space: A feature allowing users to search, browse, and select from available spaces based on location, and space amenities.

Create a Space: This functionality empowers you to establish a new area within your organization, whether it's a study room, conference area, or communal space, tailored to meet the needs of your users. Various tags are available when creating a space, which are displayed on the SpaceCard to signal what amenities are available in said space.

Check-in: The action taken by a user to indicate their presence or occupancy within a specific space, typically recorded for organizational or informational purposes.

Check-out: The action taken by a user to indicate their departure or no longer being present within a specific space.

Favorites: Spaces that a user has marked or saved for quick and easy access, often based on personal preferences or frequent usage.

Location Data: Information about the geographical position of a user, typically obtained from GPS or other positioning technologies.

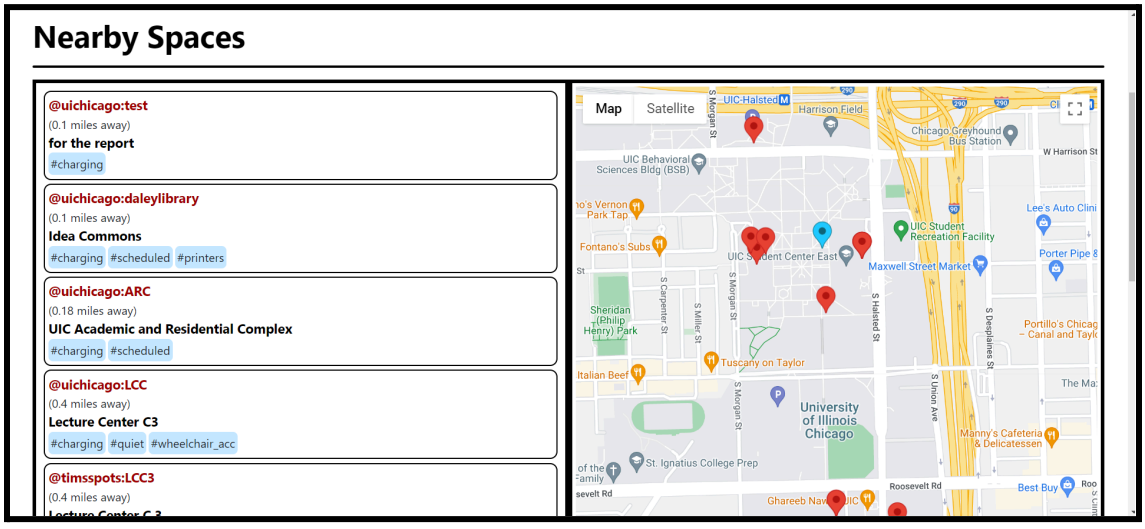

Figure #10 : Dashboard: SpaceList and Map Embed