gOU Maps User Guide

A Comprehensive Guide to Features, Design Choices and Functionality

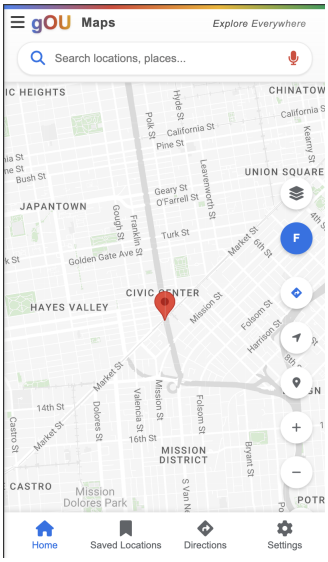
April 7, 2025

Version 1.0

Contents

1 Introduction

The application is designed to offer a similar user experience to industry-standard mapping applications while incorporating unique features and a distinctive design language. This document will also explain the Human-Computer Interaction (HCI) principles applied in the development process and discuss the challenges faced during implementation.



2 Application Interface

2.1 Logo and Branding

2.1.1 Design Choices

The gOU Maps logo features a distinctive gradient text style with the word "gOU" displayed in a colorful gradient (blue, red, yellow) reminiscent of Google's brand colors, while "Maps" appears in a neutral gray tone. This design choice creates a professional yet approachable impression.

2.1.2 HCI Considerations

The logo serves as a constant orientation point for users, reinforcing brand identity while maintaining a clean aesthetic that doesn't distract from the primary functionality of the application.

2.1.3 Implementation Challenges

Creating a responsive logo that scales appropriately across different device sizes required careful CSS implementation, including the use of gradient text and responsive font sizing.

2.2 Search Bar

2.2.1 Functionality

The search bar allows users to:

- Search for locations, businesses, and addresses
- Access recent search history
- Get autocomplete suggestions as they type

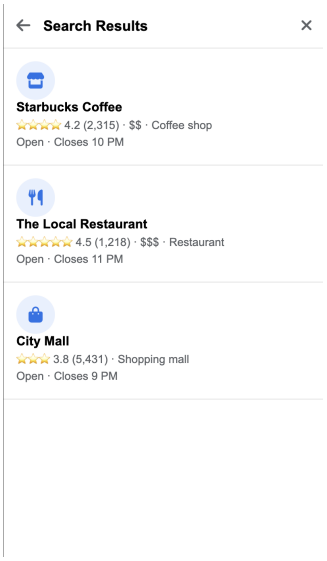
- Clear their current search

2.2.2 Design Choices

The search bar is prominently positioned at the top of the interface with a subtle shadow effect to make it stand out without being distracting. It features intuitive icons: a magnifying glass for search and a microphone for voice input.

2.2.3 HCI Considerations

The search bar's design follows established patterns users are familiar with from other mapping applications, reducing the learning curve while implementing features that enhance usability, such as persistent recent searches and clear visual feedback during interaction.



2.3 Navigation Menu

2.3.1 Functionality

The navigation menu provides access to:

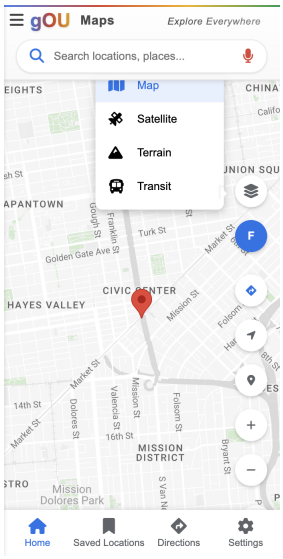
- Primary navigation options
- User account settings
- Application preferences

2.3.2 Design Choices

The menu uses a familiar "hamburger" icon (three horizontal lines) that expands to reveal navigation options. This approach saves screen space while providing access to less frequently used features.

2.3.3 HCI Considerations

The hamburger menu is a widely recognized UI pattern that allows the interface to remain clean while providing access to additional functionality. The menu items are arranged in order of likely frequency of use, with clear iconography to aid recognition.



3 Map View

3.1 Map Canvas

3.1.1 Functionality

The map canvas serves as the primary display area for geographic information. Users can:

- Pan by dragging
- Zoom in/out using pinch gestures or zoom controls
- Tap/click to select locations
- View location markers and route lines

3.1.2 Design Choices

The map occupies the majority of the screen space, maximizing the viewing area while maintaining access to essential controls. A subtle grid pattern is applied when the map is loading to provide visual feedback.

3.1.3 HCI Considerations

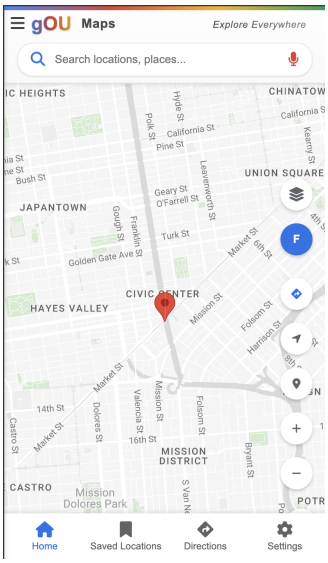
The map implements standard touch and mouse interactions that align with user expectations, making the interface immediately usable without requiring instructions.

3.2 Map Layers

3.2.1 Functionality

Users can switch between different map visualization modes:

- Standard map view
- Satellite imagery
- Terrain visualization
- Transit information overlay

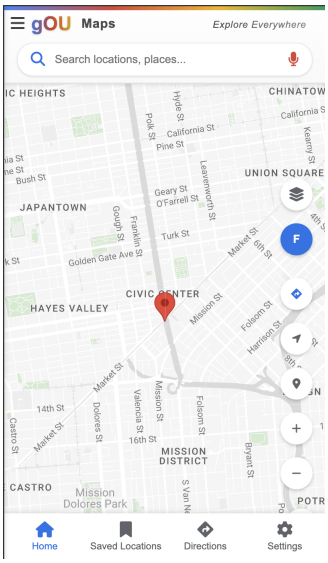


3.2.2 Design Choices

The layer selection control is accessible via a dedicated button with a layers icon, opening a drop-down menu with visual icons representing each option. The currently active layer is highlighted in blue.

3.2.3 HCI Considerations

The layer options are presented with both icons and text labels to enhance recognition. The active state is clearly indicated through color and background changes, providing immediate visual feedback about the current selection.



3.3 Zoom Controls

3.3.1 Functionality

Zoom controls allow users to:

- Zoom in to see greater detail

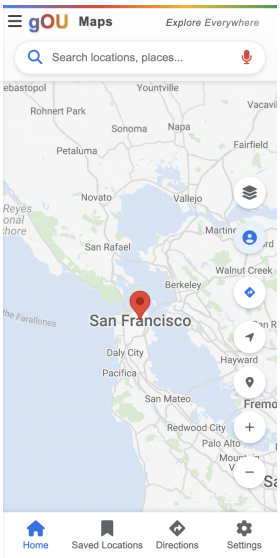
- Zoom out to see a wider area
- Return to the default zoom level

3.3.2 Design Choices

The zoom controls are positioned on the right side of the screen as circular buttons with plus/minus icons, making them easily accessible while minimizing screen obstruction.

3.3.3 HCI Considerations

While many users are familiar with pinch-to-zoom gestures on touchscreens, the explicit zoom buttons provide an alternative interaction method and visual affordance that helps new users discover this functionality.



3.4 Markers and Pins

3.4.1 Functionality

Map markers indicate:

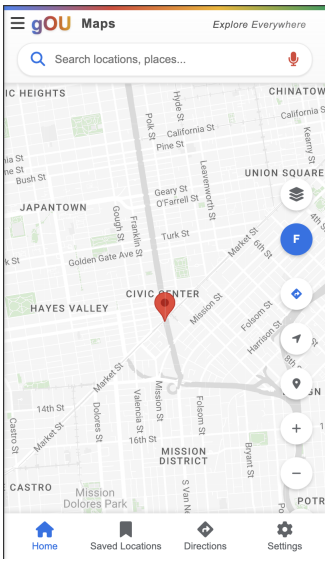
- Points of interest
- Search results
- User's current location
- Origin and destination points for directions
- Custom markers added by the user

3.4.2 Design Choices

Different marker styles and colors are used to distinguish between types of locations. For example, the user's current location is shown as a blue dot, while destination markers use the traditional red pin design.

3.4.3 HCI Considerations

The markers follow established conventions in mapping applications, with interaction patterns users are likely to be familiar with, such as tapping a marker to see more information about the location.



4 Bottom Navigation Bar

4.1 Home

4.1.1 Functionality

The Home tab returns users to the main map view and clears any active searches or directions.

4.1.2 Design Choices

The Home tab is represented by a house icon and is positioned as the first item in the bottom navigation, following standard mobile navigation patterns.

4.1.3 HCI Considerations

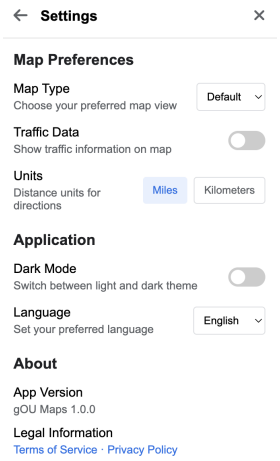
Providing a dedicated Home button gives users a safety net to return to a familiar starting point if they get lost in the application flow.

4.2 Saved Locations

4.2.1 Functionality

The Saved Locations tab allows users to:

- View places they've bookmarked
- Access frequently visited locations
- Organize saved places into collections



4.2.2 Design Choices

This tab uses a bookmark icon that visually communicates the saving function. When selected, it displays a list of saved locations that users can interact with.

4.2.3 HCI Considerations

The ability to save locations reduces cognitive load by eliminating the need for users to remember or repeatedly search for places they visit often.

4.3 Directions

4.3.1 Functionality

The Directions tab enables users to:

- Set origin and destination points
- Choose transportation methods
- View turn-by-turn navigation
- See route options with time and distance estimates

4.3.2 Design Choices

This tab uses a direction arrow icon that clearly communicates its purpose. When active, it opens a panel with input fields for origin and destination.

4.3.3 HCI Considerations

The directions interface is designed to minimize the number of steps required to get navigation information, with sensible defaults and clear visual guidance through the process.

4.4 Settings

4.4.1 Functionality

The Settings tab provides access to:

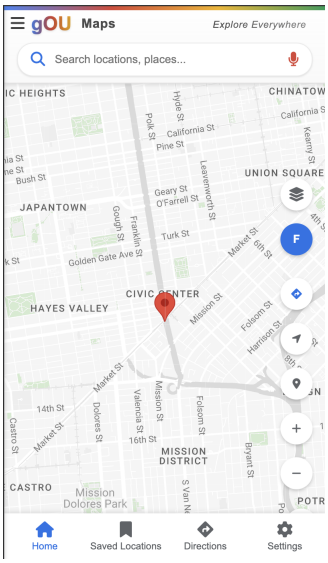
- Application preferences
- Map display options
- Privacy controls
- Account settings

4.4.2 Design Choices

This tab uses the universal gear icon to indicate settings and configuration options.

4.4.3 HCI Considerations

The settings are organized in categories with descriptive labels and toggles that provide clear visual feedback about their current state.



5 User Authentication

5.1 Login Interface

5.1.1 Functionality

The login interface allows users to:

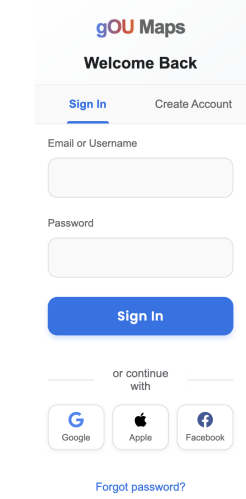
- Sign in with email and password
- Use social login options (Google, Apple, Facebook)
- Reset forgotten passwords
- Switch to the sign-up form if they need to create an account

5.1.2 Design Choices

The login page features a clean, minimalist design with a prominent form area set against an image background. The form fields are large and easy to interact with on touchscreens.

5.1.3 HCI Considerations

The login process is streamlined to reduce friction, with clear error messages and visual cues to guide users through the authentication process.



5.2 Social Login

5.2.1 Functionality

Social login options allow users to authenticate using existing accounts from:

- Google
- Apple
- Facebook

5.2.2 Design Choices

Each social login option is presented as a distinctive button with the appropriate branding colors and icons, making them easily recognizable.

5.2.3 HCI Considerations

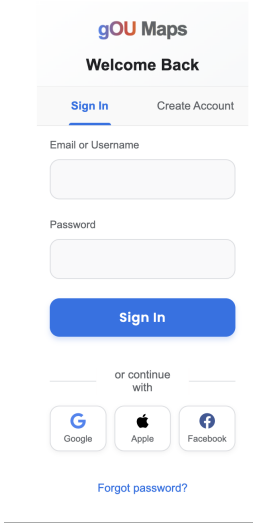
Social login reduces cognitive load by eliminating the need to remember another set of credentials, while also streamlining the onboarding process for new users.

5.3 Password Recovery

5.3.1 Functionality

The password recovery system allows users to:

- Request a reset link via email
- Answer security questions (if configured)
- Create a new password



5.3.2 Design Choices

The password recovery flow uses a step-by-step approach with clear instructions at each stage.

5.3.3 HCI Considerations

The recovery process balances security requirements with usability considerations, providing multiple recovery options to accommodate different user preferences.

6 Location Details

6.1 Information Panel

6.1.1 Functionality

The location details panel displays:

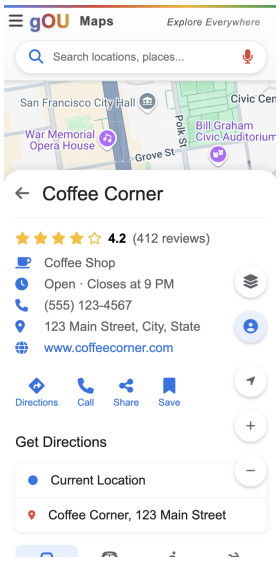
- Business/location name
- Address and contact information
- Operating hours
- Rating and review summary
- Photos and imagery

6.1.2 Design Choices

On mobile devices, the panel slides up from the bottom of the screen, allowing users to adjust its height by dragging. On desktop, it appears as a sidebar.

6.1.3 HCI Considerations

The panel's design allows users to view location details while still keeping the map visible, maintaining spatial context while accessing additional information.



6.2 Rating and Reviews

6.2.1 Functionality

The rating and review system allows users to:

- See the average rating and total number of reviews
- Read individual reviews with ratings, text, and photos
- Filter reviews by rating (1-5 stars)
- Submit their own ratings and reviews
- Add photos to their reviews
- Mark reviews as helpful

6.2.2 Design Choices

The rating summary uses a familiar 5-star visualization with a numerical average and graphical breakdown of rating distribution.

6.2.3 HCI Considerations

The review interface makes it easy for users to both consume and contribute content, encouraging engagement while presenting information in a scannable format.

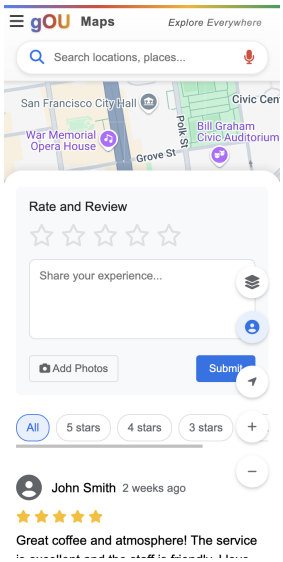
7 Navigation Features

7.1 Directions Interface

7.1.1 Functionality

The directions interface allows users to:

- Enter starting point and destination
- Choose from multiple transportation modes



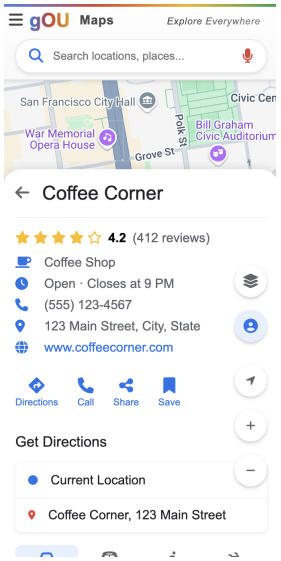
- View route options with time and distance estimates
- See turn-by-turn directions
- View traffic conditions

7.1.2 Design Choices

The directions panel uses a dual-input design with origin and destination fields clearly marked with different colored icons. Transportation options are displayed as icon buttons.

7.1.3 HCI Considerations

The step-by-step process guides users naturally through the task of getting directions, with appropriate defaults (like using current location as the starting point) to minimize input requirements.



7.2 Transportation Modes

7.2.1 Functionality

Users can select from multiple transportation modes:

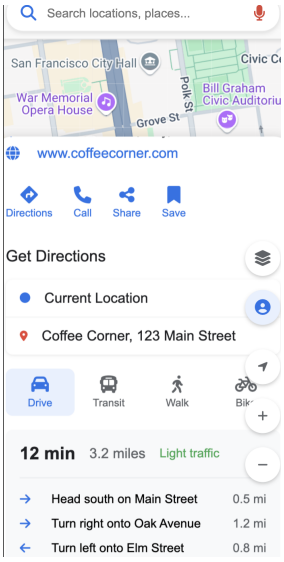
- Driving
- Public transit
- Walking
- Cycling
- Ride-sharing

7.2.2 Design Choices

Each transportation mode is represented by an intuitive icon and label. The active mode is highlighted with a blue accent color and background.

7.2.3 HCI Considerations

The transportation options are arranged horizontally for easy scanning, with touch targets sized appropriately for finger interaction on mobile devices.



7.3 Ride-sharing Integration

7.3.1 Functionality

The ride-sharing features allow users to:

- Compare prices across multiple services (Uber, Lyft)
- See estimated wait times
- Open the respective ride-sharing apps with route information pre-filled

7.3.2 Design Choices

Ride-sharing options are presented as cards with the service logos, estimated prices, and wait times prominently displayed.

7.3.3 HCI Considerations

The integration streamlines the process of booking a ride by handling the transition between apps and transferring relevant data, reducing the number of steps users need to take.

8 Additional User Features

8.1 Recent Searches

8.1.1 Functionality

The recent searches feature:

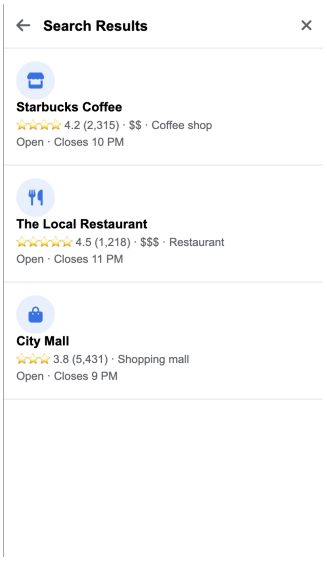
- Maintains a history of previous searches
- Allows quick re-selection of previously searched locations
- Provides an option to clear search history

8.1.2 Design Choices

Recent searches appear in a dropdown below the search bar, with icons indicating search types and chronological ordering.

8.1.3 HCI Considerations

This feature reduces repetitive input by allowing users to quickly access their search history, improving efficiency for returning users.



8.2 Current Location

8.2.1 Functionality

The current location feature:

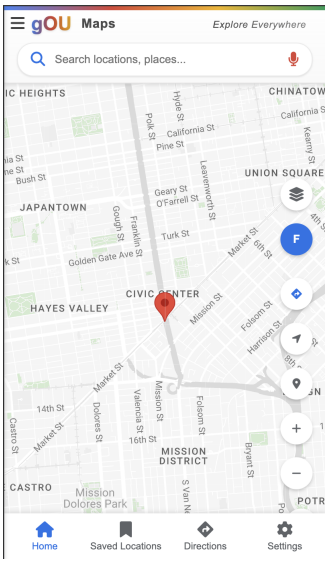
- Determines the user's geographic position
- Centers the map on the current location
- Updates position as the user moves
- Serves as a starting point for directions

8.2.2 Design Choices

A dedicated "My Location" button with a location arrow icon is positioned among the floating controls, making it easily accessible.

8.2.3 HCI Considerations

The current location feature provides important contextual awareness, helping users orient themselves within the geographic space represented on the map.



8.3 Custom Markers

8.3.1 Functionality

The custom marker feature allows users to:

- Place markers anywhere on the map
- Label and annotate custom locations
- Use custom points as origins or destinations for directions

8.3.2 Design Choices

A marker placement button toggling "placement mode" allows users to tap anywhere on the map to add a marker.

8.3.3 HCI Considerations

This feature gives users the ability to mark locations that may not be in the database, such as meeting points or areas of personal interest.

8.4 Home and Work Addresses

8.4.1 Functionality

Users can:

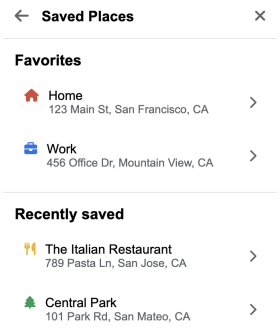
- Set default home and work locations
- Quickly access directions to/from these locations
- Update these predefined addresses as needed

8.4.2 Design Choices

Home and work locations are displayed prominently in the user profile and as shortcuts in the directions interface.

8.4.3 HCI Considerations

This feature addresses the common use case of navigating between frequently visited locations, reducing the steps required for these recurring tasks.



9 Conclusion

The gOU Maps application represents a thoughtful implementation of mapping functionality with careful attention to user experience principles. Through its design, the application balances the need for comprehensive features with usability considerations across different devices.

The interfaces and interactions are crafted to be intuitive while still offering advanced capabilities for users who need them. By following established patterns where appropriate and introducing innovations where they add value, gOU Maps provides a familiar yet enhanced mapping experience.

This user guide has outlined the key features, design decisions, and HCI considerations that shape the application, providing context for understanding both what the application does and why it works the way it does.