Tab 1

# PathMates: Design Brief

## Prototype Submission

The complete low-fidelity prototype is included in the PDF below titled “Low-Fidelity Prototype.” This prototype includes all the key screens and flows necessary to support the PathMates app.

### [Low-Fidelity Prototype.pdf](https://drive.google.com/file/d/1j_TaUPFldx5Kmnh9kMWHdS9cS3EfrPui/view?usp=sharing)

Original prototype before feedback from in-class evaluation:

### [Prototype with arrows.pdf](https://drive.google.com/file/d/1oEuZAT7RjmfCy91p5DeONE04hfa7g8b9/view?usp=sharing)

Some of the key screens include:

* User profile creation and verification
* Map-based interface for locating and selecting walking companions
* Friends/Contact list to add and accept requests that show mutuals as well on this screen *(based on feedback from students)*
* Group creation and joining interfaces for coordinating group walks *(revised based on feedback from students)*
* Safety and emergency features, including report options and quick-access emergency buttons
* Screens to guide the user to other applications in the event they get no matches due to a lack of available UMN students *(based on feedback from students)*
* A rating system to view others’ ratings before walking and rate walking experiences with others *(based on feedback from students)*
* Filtering match results by path overlap, compatibility (interest-based), mutual friends, rating, or any combination of the four *(based on feedback from students)*

Each screen has been drawn/annotated with arrows to help users understand functionality and flow. The primary focuses are on ease of navigation, user verification, and intuitive safety features.

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## Design Rationale

When users first open PathMates, they are greeted by an intuitive mobile interface with a prominently centered “Log In” button. This interface is designed to streamline access, where users are then directed to a page where they must enter their UMN ID and password. This ensures that only actual students at the university can access the application. This is designated by the UMN logo (M) to represent only UMN students can log in, pulling inspiration from websites such as MyU. This design feature enhances users’ sense of safety by ensuring that only fellow students can access the app, creating a sense of trust and community. This ties back to the user research, where it was evident that the users preferred to walk with other people of familiar backgrounds, i.e. being a student at the University of Minnesota, as opposed to a complete stranger.

First-time app users are directed to a series of six steps through a wizard for creating their profile. Users are prompted to enter their name with a clear indication that this will be visible to others. This is essential to inform users about the visibility of their name, as this awareness enhances transparency and contributes to a safer experience. Next, users are then required to verify their UMN ID by taking a photo. This authentication step verifies the user’s status as a legitimate student, creating baseline security within the app. If the verification is successful, a clear confirmation screen is displayed allowing immediate feedback to users. Another important design choice was indicating to the user the specific step they are on and how many steps there will be, and displaying this information on the screen (bottom) to mark progress. This informs the user of their progress, allowing users to anticipate the next steps, and have a sense of control over the completion timeline. Lastly, our wizard features navigation to go back a step if needed as well as move forward ensuring that users have more control over steps they need to revisit or move on from. We intend to gray out the forward button unless the required fields are filled out.

In the profile wizard, users are prompted to include information about their preferences, etc. with neatly organized buttons for each section. This ties back to user research, where a user indicated that having more profile information such as social media links, bios, and preferences, helps legitimize and make the user more approachable to other prospective users using the app. This clear design layout enhances usability, allowing users to navigate their options without feeling overwhelmed. This is an important step in the process because the app must serve the user's need to create better matches with potential walking companions based on shared interests.

To start a walk, users are prompted to enter their to and from location, with a clear indication stating how their destination address will not be visible to other users. This transparency is vital in making users feel safe and be assured that their destination will not be shared. When a user hits the search icon, they find potential matches that are automatically filtered by path overlap. If there are no matches, users are directed to the 624-WALK or Rave Virtual Assistant. If there are matches, they can see a map view of nearby users/groups if they prioritize proximity to the other user, as well as look through a list through a “Show List” button to more easily see all potential pathmate’s information in one place.

If a user wants to create a group, they would select “Create group” which would allow them to select multiple users from the map or join an existing group. This addresses the user’s need to feel more safe and secure in a group versus being with only one other student. The list of results has a filter feature to allow the user to filter results based on compatibility (interest-based), mutual friends, highest ratings, path overlap, or any combination of the four. This is an important user need as some users are less concerned about their safety but would be willing to try an app to meet new people. In this case, they may not be concerned with walking extra or having less path overlap (walking alone for some time) if they are primarily using the app to socialize. We chose this filter design based on other interfaces where search results can be refined by applying specific filters from a drop-down menu. Users can also message/call matches once a walk has started to coordinate a proper meeting point. The call can also be used in creative ways such as suggesting a call instead of a walk if they feel safer that way. This design allows users to prioritize their comfort and safety. The intentional placement of this messaging option enhances accessibility and visibility of all the options, making it easy for users to communicate their preferences for time, meeting place, or any other details. At the end of the walk, users rate their experience with the others, holding students accountable for any negative actions, boosting transparency to the interface overall. We added this feature after our initial prototype presentation, at which we heard that users would appreciate more transparency in this way. Initially, we went with an anonymous like or dislike button to try to prevent bias and unnecessary hate/bullying.

The main page has a bottom row that contains four primary buttons with a messages, search, history, and profile tab. The messages tab allows for personal direct messages from friends and previous walking companions. The search tab is part of this row because it is the most common tab where a user will navigate to find a walking companion. The history tab allows for ease of use to review past interactions or to quickly reconnect with individuals they’ve walked with before. The profile tab allows the user to customize or update their profile by editing existing information. Additionally, this tab has other social features such as being able to add and view friends. This design choice enhances user experience by facilitating ongoing connections and a sense of community within the app.

## Questions/Concerns:

Usability:

* How intuitive is the navigation for features like locating nearby peers?
* Are users able to easily understand how to use the key features, such as finding walking companions and verifying their identity?

User Experience:

* Do users feel comfortable sharing their location with the app?
* How do users respond to the overall visual design? Is it engaging and appealing?

Safety and Trust:

* Does the verification process make users feel safe when connecting with others?
* Are the emergency features (like quick access buttons) easily accessible and clear to use?

Community Engagement:

* Are users able to connect with peers based on shared interests?
* How do users feel about the ability to form groups versus walking individually?

Testing Concerns:

* Will our user testing include a diverse group of students who reflect different backgrounds and experiences regarding campus safety?
* Are the scenarios used for testing realistic and representative of typical walking situations on campus at various times of the day?

## Task Descriptions For Testing

* 1. **Task Description #1 :**

*Context:* It’s 9:00 PM, and Jane’s night class at Bruininks Hall has just ended. She needs to walk back to her apartment in Dinkytown but feels uneasy about walking alone in the dark. She doesn’t have any friends in her class who live in the same direction and doesn’t feel comfortable approaching strangers directly on campus. She also does not converse well with other students unless she has things in common, making her want to avoid awkward long walks with others.

*Task:* Jane wants to find another University of Minnesota student who is also heading toward Dinkytown around the same time to walk with her. She hopes to:

1. Identify a fellow student nearby who is also going to Dinkytown.
2. Ensure the person is a legitimate UMN student for safety assurance.
3. Coordinate a meeting point and time to start the walk together.
4. Feel more secure during her walk home by having a companion.
5. Have a joyful experience, no awkward silent walks.
   1. **Task Description #2 :**

*Context:* It’s midnight, and George has been studying late at Walter Library. He plans to walk back to his apartment in Prospect Park. He is aware that others might feel unsafe walking alone at this hour, so he is considering forming a group.  
  
*Task:* George aims to:

1. Connect with other students who are heading toward Prospect Park.
2. Offer to walk together to enhance safety for everyone.
3. Potentially meet new people with shared interests, making new friends.
4. Coordinate logistics such as meeting time and place at the hour.