Our team's project name is '**GlobeGatherer**.' It is a platform designed for enthusiastic travelers. The GlobeGatherer app aims to foster connections among individuals who share a passion for exploring the world and traveling together. Within the platform, we have identified three distinct user roles: administrators, managers, and users (common people).

TYPES OF USERS:
For Common Users:
  Text:
  - **Description:** Allows users to send text messages to other users.
  - **Additional Information:** Users can engage in text-based communication with friends and contacts, facilitating real-time conversations.
  View Other People's Location:
  - **Description:** Enables users to see the real-time location of their friends or contacts who have shared their location.
  - **Additional Information:** This feature enhances social connectivity by providing location-based insights into the whereabouts of friends.
  View Friend's To-Do List:
  - **Description:** Permits users to access and view the to-do lists of their friends or contacts.
  - **Additional Information:** Users can stay organized and collaborate effectively by accessing and coordinating tasks with friends.
  Edit To-Do List:
  - **Description:** Allows users to create, modify, and delete items on their own to-do list.
  - **Additional Information:** Users can manage their tasks efficiently by adding, editing, and removing items from their personal to-do lists.
  Change Profile Name:
  - **Description:** Enables users to update their profile name or display name as needed.
  - **Additional Information:** Users can personalize their profiles, keeping their information up-to-date and reflecting their preferences.

For Managers:
  View Everyone's Personal Info:
  - **Description:** Allows managers to access and view the personal information of all users, such as their profiles and contact details.
  - **Additional Information:** This feature provides managers with oversight and ensures that user profiles align with community guidelines.
  Text:
  - **Description:** Provides managers with the ability to send text messages to other users.
  - **Additional Information:** Managers can use text messaging for official communication, announcements, or to address user concerns.

View Other People's Location:
- **Description:** Grants managers access to real-time location information of all users who have shared their location.
- **Additional Information:** Managers can use location data for safety and security purposes, ensuring user well-being.

View Anyone's To-Do List:
- **Description:** Permits managers to access and view the to-do lists of all users.
- **Additional Information:** Managers can gain insights into user activities and coordinate tasks or activities as necessary.

Edit Everyone's To-Do List:
- **Description:** Allows managers to create, modify, and delete items on their own to-do list.
- **Additional Information:** Managers can use this functionality for their own task management and organization.

Change Profile Name:
- **Description:** Enables managers to update their profile name or display name as needed.
- **Additional Information:** Managers, like users, can personalize their profiles to reflect their roles or preferences.

For Admins:

View Login Credentials:
- **Description:** Provides admins with access to view login credentials (e.g., usernames and passwords) of all users and managers.
- **Additional Information:** Admins can use this access for security and administrative purposes, such as assisting users with login issues or enforcing password policies.

Text:
- **Description:** Allows admins to send text messages to other users.
- **Additional Information:** Admins can use text messaging for official announcements, system alerts, or user support.

View Other People's Location:
- **Description:** Grants admins access to real-time location information of all users and managers who have shared their location.
- **Additional Information:** Admins can use location data for safety, security, and monitoring purposes.

View Everyone's To-Do List:
- **Description:** Permits admins to access and view the to-do lists of all users and managers.
- **Additional Information:** Admins can use this access to monitor user and manager activities and provide assistance if needed.

Edit Everyone's To-Do List:
- **Description:** Allows admins to create, modify, and delete items on anyone's to-do list.

- **Additional Information:** Admins can use this functionality for their own task management and organization.
    - **Change Profile Name:**
        - **Description:** Enables admins to update their profile name or display name as needed.
        - **Additional Information:** Admins, like users and managers, can personalize their profiles for identification and communication purposes.

These functionalities are designed to cater to the specific needs and responsibilities of each user role while ensuring that the system operates smoothly and securely.

All users on our platform will have their unique account credentials, which will play a crucial role in determining their user type - whether they are administrators, managers, or common users. When users create their accounts, they will be prompted to provide essential information, including their profile name, profile photo, contact information, email address, date of birth, and a brief 'About Me' description.

NON-FUNCTIONAL REQS

Performance:
- Priority: High
- Description: Performance is the top priority for GlobeGather. It encompasses factors such as throughput and response time. Users expect the app to be responsive and capable of handling a large number of requests simultaneously. Fast response times and efficient data processing are crucial to providing a seamless and enjoyable user experience. Performance directly impacts user satisfaction and retention. As the user base grows, maintaining optimal performance will be essential for the app's success. It also involves efficient use of server resources to minimize operating costs.

Scalability:
- Priority: Medium
- Description: Scalability refers to the ability of the GlobeGather system to accommodate a growing number of users and an increasing volume of data. While not as critical as performance, it is still of high importance. As the app gains popularity, it should be able to scale horizontally by adding more server resources and adapt to the increasing demand. Scalability ensures that the app can handle a larger user base without significant degradation in performance. This will also involve database scaling to manage user-generated content and travel data efficiently.

Reliability:
- Priority: Medium
- Description: Reliability is a crucial non-functional requirement, although it's slightly lower in priority than performance and scalability. Users must trust GlobeGather for planning

their trips and connecting with others. Reliability ensures that the app operates consistently without unexpected downtime or data loss. It includes features like data backup and recovery mechanisms, fault tolerance, and monitoring to detect and address issues promptly. Users should be confident that their travel plans and personal data are secure and available when needed.

These non-functional requirements reflect the core aspects of GlobeGather's success. Prioritizing performance ensures a responsive and efficient user experience, while scalability anticipates the app's growth. Reliability, while slightly lower in priority, is crucial for building and maintaining user trust. Meeting these requirements will be essential for GlobeGather to become a reliable and widely adopted travel planning and social networking app.

LIST OF TABLES AND FIELDS

Common Users Table:
- **Table Name:** common_users
- **Fields:**
    a. user_id (Primary Key): Unique identifier for each common user.
    b. username: User's chosen username.
    c. email: User's email address.
    d. password: Securely hashed and salted user password.
    e. account_type: Indicates the user's account type (common user, manager, or admin).
    f. location_privacy: Stores user preferences for location privacy.

Managers Table:
- **Table Name:** managers
- **Fields:**
    a. manager_id (Primary Key): Unique identifier for each manager.
    b. user_id (Foreign Key): Relates to the user_id in the common_users table to establish a relationship.
    c. access_level: Specifies the manager's access level or permissions.

Admins Table:
- **Table Name:** admins
- **Fields:**
    a. admin_id (Primary Key): Unique identifier for each admin.
    b. user_id (Foreign Key): Relates to the user_id in the common_users table to establish a relationship.
    c. access_level: Specifies the admin's access level or permissions.

Friends Table (for all user types):

- **Table Name:** friends
- **Fields:**
    a. friendship_id (Primary Key): Unique identifier for each friendship.
    b. user_id (Foreign Key): **Relates** to the **user_id of the user** initiating the friend request.
    c. friend_id (Foreign Key): **Relates** to the **user_id of the user** being invited as a friend.
    d. status: Indicates the status of the friendship request (e.g., pending, accepted).
    e. date_added: Timestamp of when the friend request was initiated or accepted.

Locations Table:
- **Table Name:** locations
- **Fields:**
    a. location_id (Primary Key): Unique identifier for each location entry.
    b. user_id (Foreign Key): **Relates** to the **user_id in the common_users** table to establish a relationship.
    c. latitude: Latitude coordinates of the user's location.
    d. longitude: Longitude coordinates of the user's location.
    e. location_name: A user-friendly name for the location (e.g., "Home," "Work," "Favorite Vacation Spot").

Credentials Table:
- **Table Name:** credentials
- **Fields:**
    a. credential_id (Primary Key): Unique identifier for each set of credentials.
    b. user_id (Foreign Key): Relates to the user_id in the common_users table to establish a relationship.
    c. credentials_data: Stores additional user credentials or sensitive information.

Suspended Users Table:
- **Table Name:** suspended_users
- **Fields:**
    a. suspension_id (Primary Key): Unique identifier for each suspension record.
    b. user_id (Foreign Key): Relates to the user_id in the common_users table to establish a relationship.
    c. reason_for_suspension: Records the reason for suspending the user account.
    d. suspension_duration: Specifies the duration of the suspension.

Travel History Table:
- **Table Name:** travel_history
- **Fields:**
    a. history_id (Primary Key): Unique identifier for each travel history record.
    b. user_id (Foreign Key): Relates to the user_id in the common_users table to establish a relationship.

    c.   destination: Records the destination of the user's travel activity.
    d.   travel_dates: Specifies the travel dates.
    e.   notes: Allows users to add notes or details about their travel experiences.

To-Do List Table:
- **Table Name:** to_do_list
- **Fields:**
    a. task_id (Primary Key): Unique identifier for each task in the to-do list.
    b. user_id (Foreign Key): Relates to the user_id in the common_users table to establish a relationship.
    c. task_name: Records the name or title of the task.
    d. task_description: Provides a description or details about the task.
    e. due_date: Specifies the due date for completing the task.
    f. task_status: Indicates the status of the task (e.g., pending, completed).

Relationships:
- The common_users table is related to the friends table through the user_id field, allowing users to have a list of friends.
- The common_users table is related to the locations table through the user_id field, allowing users to associate multiple locations with their account. This relationship supports features like tracking and sharing travel plans based on user locations.
- The common_users table is related to the credentials table through the user_id field, allowing users to associate additional credentials or sensitive information with their account.
- The common_users table is related to the suspended_users table through the user_id field, enabling the recording of suspension records for user accounts.
- The common_users table is related to the travel_history table through the user_id field, allowing users to record their travel history.
- The common_users table is related to the to_do_list table through the user_id field, enabling users to maintain a to-do list associated with their account.
- The managers table is related to the common_users table through the user_id field to maintain user access control.
- The admins table is related to the common_users table through the user_id field to maintain user access control.
- The friends table relates users by connecting the user_id and friend_id fields, facilitating friendships between users.
- The locations table is linked to the common_users table through the user_id field, allowing users to associate multiple locations with their account.
- The credentials table is associated with the common_users table through the user_id field, enabling users to associate additional credentials or sensitive information with their account.
- The suspended_users table is connected to the common_users table through the user_id field, enabling the recording of suspension records for user accounts.

- The travel_history table is related to the common_users table through the user_id field, allowing users to record their travel history.
- The to_do_list table is linked to the common_users table through the user_id field, enabling users to maintain a to-do list associated with their account.

These tables and relationships will help manage user data, access control, and friendships within GlobeGather. Depending on the application's requirements, additional tables for storing travel plans, messages, and other data may be necessary.

THE HOME SCREEN:

Home screen (common user) by Raghuram:
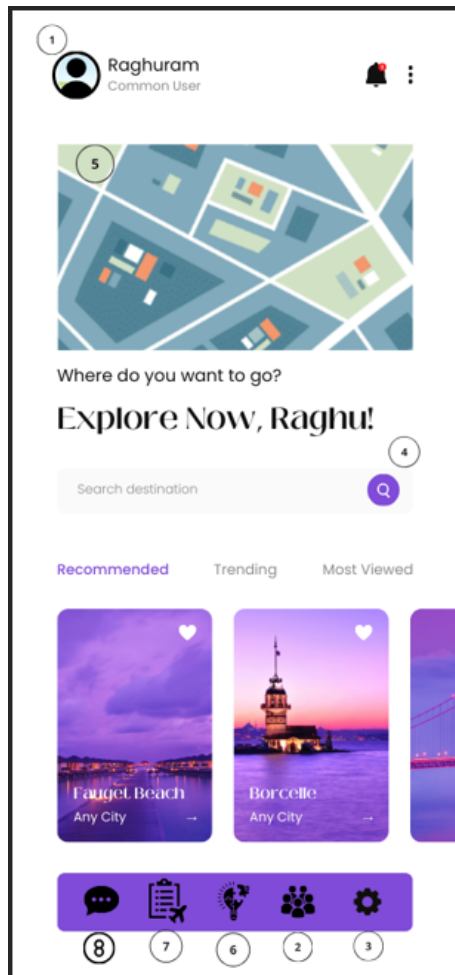
1. User Profiles:
   Users can create and log in to their personalized profiles, providing essential information such as username, email, and profile picture. Profiles serve as the user's identity within the app.

2. Friends and Connections:
   Users have the ability to connect with other users, forming a network of friends and travel companions. These connections enable features like sharing travel plans and messaging.

3. Settings and Privacy:
   Users can customize their app experience through settings. They have the option to control their location privacy, toggling between sharing or hiding their current location. Additionally, users can switch between light and dark mode for personalized aesthetics.

4. Search Bar and Location Navigation:
   A search bar simplifies the process of finding specific travel destinations or points of interest. Users can enter a location, and the app provides navigation and information through integrated maps.

5. Google Maps Integration:
   GlobeGather leverages the power of Google Maps API to enhance the user experience. It displays the real-time locations of friends who are nearby the user's searched location, facilitating easy meetups and travel coordination.

6. Travel Ideas:
   Navigates users to the travel ideas page where they can explore and discover new travel destinations, itineraries, and recommendations for their next adventure.

7. Travel Plans:
   Navigates users to the travel plans page, allowing them to create, view, and manage their travel plans. Users can input details about their upcoming trips, including destinations, dates, and activities.
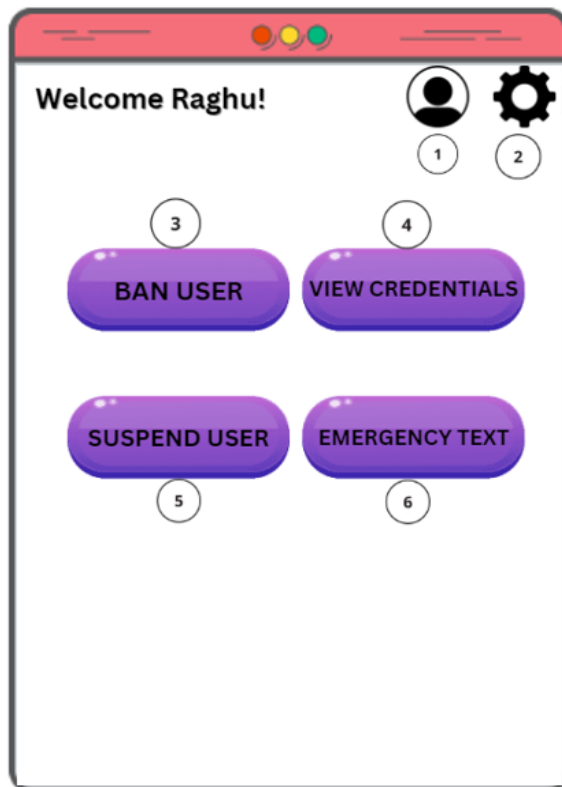
8. Chat:
   Enables users to engage in real-time chat conversations with friends they have connected with on the app. This feature facilitates communication and coordination between users during their travels or for general interaction.
   The chat page can also be accessed through the friends page.

THE ADMIN VIEW:

Admin view by Raghuram

1. Profile:

The admin profile is similar to that of a common user. It includes a profile photo, username, and other relevant information. Admins can use this profile to access the admin panel and perform administrative tasks within the app.

2. Settings:

Admins have access to the same settings and preferences available to common users. This includes options to customize their app experience, such as choosing between light and dark mode, setting privacy preferences, and managing notification settings.

3. Ban User:

Admins have the authority to delete or ban a user's account if they violate the app's policies or engage in inappropriate behavior. This action is taken to maintain a safe and respectful user environment and uphold community standards.

4. View Credentials:

Admins can view the credentials and account information of any user in the app. This access is typically used for administrative purposes, such as troubleshooting account issues or

verifying user identity.

5. Suspend User:
Admins can temporarily restrict or disable a user's account for a specific duration if the user violates app policies. Suspension serves as a penalty for inappropriate behavior and aims to discourage policy violations.

6. Emergency Text:
Admins have the capability to send emergency text messages to any user in the app, even if they are not connected as friends. This functionality is reserved for critical situations, such as safety alerts, important announcements, or urgent information dissemination. It ensures that users receive essential information promptly, regardless of their friend status with the admin.

These admin functionalities empower administrators to manage user accounts, enforce app policies, and respond effectively to both routine and emergency situations. Admins play a pivotal role in ensuring the integrity, security, and user experience of the GlobeGather app.

THE LOGIN PAGE:
Login Page by Tanvi
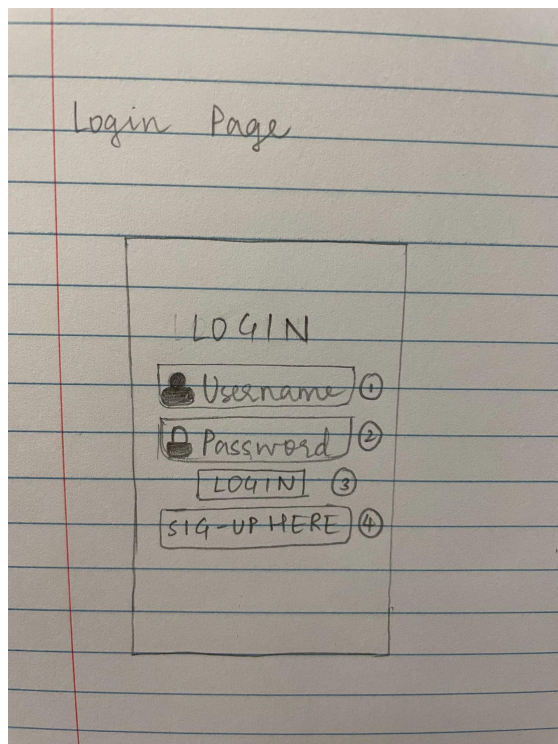
1. Username:
This field is where existing users enter their unique usernames to access their accounts. It serves as their digital identifier on the system.

2. Password:

The password field stores the user's confidential password, ensuring that only authorized individuals can gain access to their account. It adds a layer of security to protect user data.

3. Login Button:

After users enter their username and password, they click the login button. This button initiates a verification process to confirm that the provided credentials match the stored information in the system. If successful, it redirects the user to their respective home screen based on their user type (e.g., normal user or admin).

4. Sign Up Button:

This button is designed for new users who wish to create an account. Clicking the sign-up button takes them to a separate registration screen where they can input their personal information and credentials. This information will be stored in the system, allowing them to log in subsequently with their chosen username and password.

THE SIGN UP PAGE:

Sign Up Page by Tanvi

1. Name:

This field is used to capture the new user's full name during the registration process. It allows the system to associate the user with their real identity.

2. Username:

Users choose a unique username that they would like to be identified by on the platform. The system checks for username availability, ensuring there are no duplicates. If the desired username is already taken, the user will be prompted to select a different one.

3. Password:

Users create a password for their new account. This password is a confidential key that grants them access to their account. It should be kept secure and known only to the user.

4. E-mail:

The user's email address is stored in this field, enabling them to receive important notifications and updates related to the application. The system ensures that no two accounts can share the same email address for security and communication purposes.

5. Phone number:

This field is optional and allows users to provide their mobile phone number. It can be useful for account recovery or additional communication but is not mandatory for registration.

6. Submit button:

After the user enters the required information, they click the submit button. The system then stores this information in its database, registering the user in the system. Once registered, the user is redirected to the login page, where they can enter their credentials to access their account and view their personalized home screen after logging in.

THE FRIENDS PAGE:
  The Friends page by Tanvi
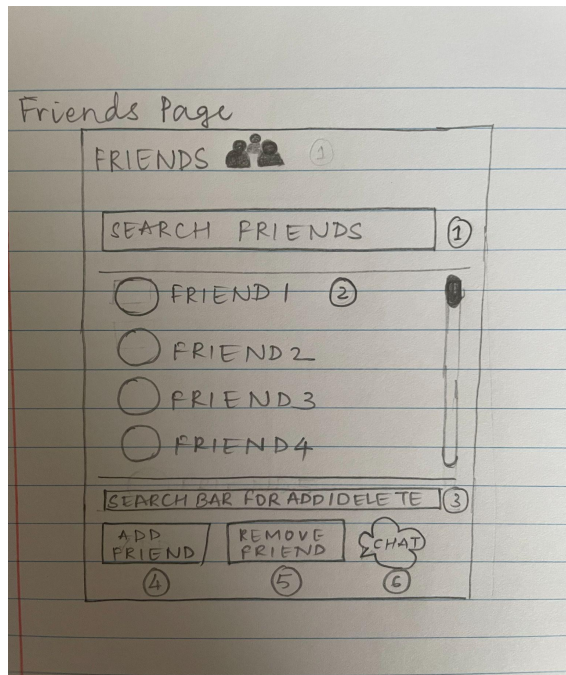
1. Search Bar:
        The search bar allows users to find their existing friends by typing their usernames or names. By clicking on a friend's profile from the search results, users can navigate to that friend's profile page.

2. List of Existing Friends:
        This section displays a scrollable list of all the user's current friends. Users can easily browse through their friend list to see their connections.

3. Search Bar for Add/Delete:
        This search bar is specifically for adding or deleting friends. Users can search for a specific username, and when the desired profile appears in the search results, they can take actions like adding or deleting that user from their friend list.

4. Adding a Friend:
        This button allows the user to send a friend request to another user whose profile they have found using the search bar. Once the request is accepted by the other user, they become friends on the platform.

5. Removing a Friend:
        Clicking this button lets users delete a friend from their friend list. It severs the connection with the selected user, removing them from the list of friends.

6. Chat Button:
      The chat button takes users to the chat page, where they can engage in conversations with their friends. The chat page typically lists all of the user's friends, with the most recent chats or conversations displayed at the top for easy access and communication.

THE CHAT PAGE:
Sketch Created by Ella
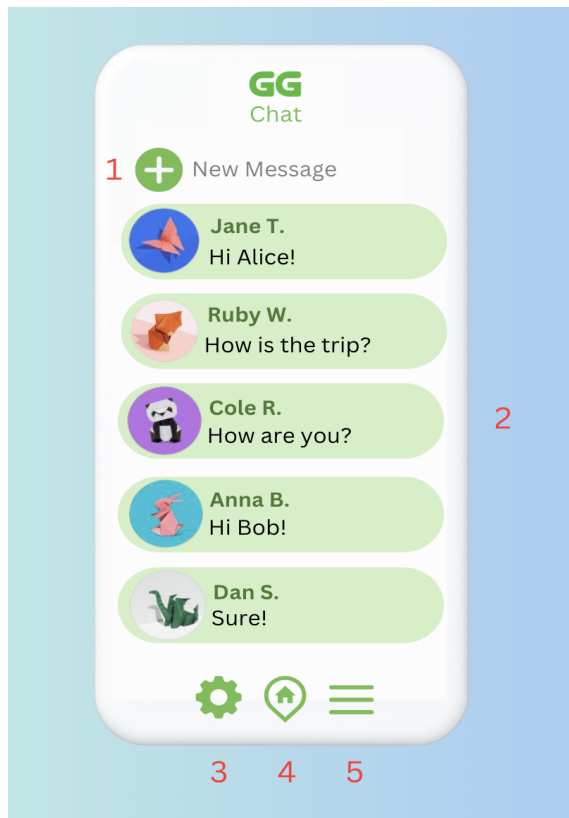
1. **The new message functionality**
   a. This will allow the user to create a new message with a friend if they choose. It will bring them to the new message page.

2. **List of current chats with most recent chat at the top**
   a. This is a list of chat history with the most recently active conversations at the top.

3. **The settings icon**
   a. This will bring the user to the settings page.
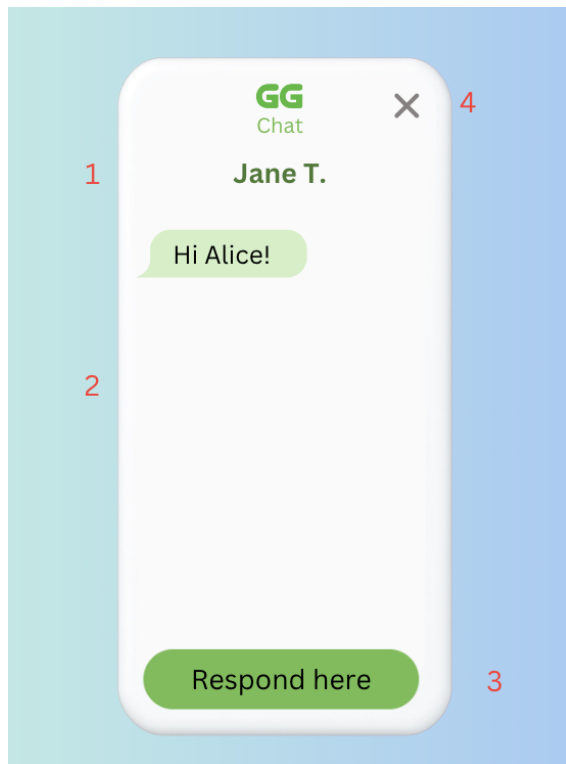
4. **The home icon**
   a. This will bring the user to the home page.

5. **The menu icon**

a. This will bring the user to the menu page.

THE MESSAGE PAGE:
Sketch Created by Ella

1. **Name of user**
   a. This is the name of the account/person the user wants to message. The user will be able to reach this page by clicking on the chat for this person on the chat page.
2. **Chat**
   a. This will display a list of back and forth chats between the user and the person they are chatting with
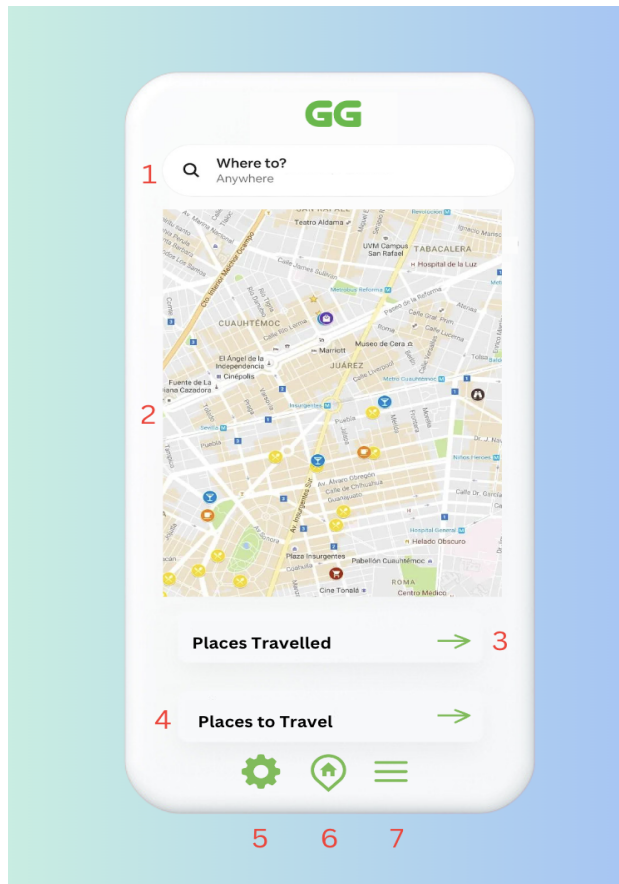
3. **The response box**
   a. By clicking this the user will see a keyboard pop up and be able to respond and send a chat to the other user.

4. **The exit**

a. This will allow the user to exit the conversation and bring them back to the chat page that will display any updated communications.

THE TRAVEL PLANS PAGE:

Sketch Created by Ella

1. **This search bar**
   a. This will allow the user to manually search the google maps API for places they might want to travel.

2. **The map**
   a. This will allow users to view the places they entered in the search bar and see any nearby activities they might be interested in.
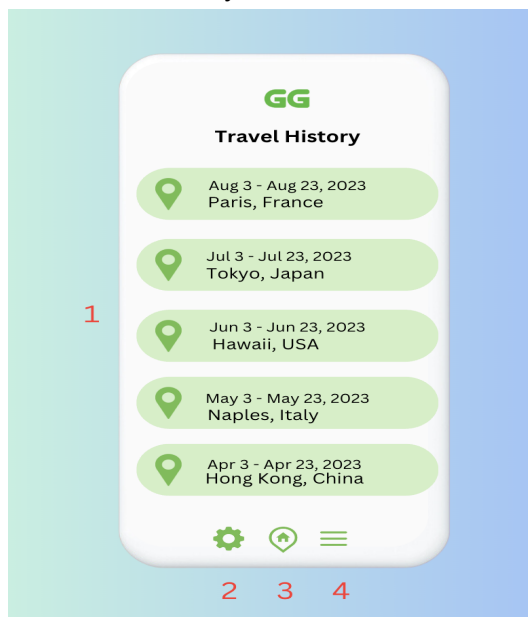
3. **The list of places traveled**
   a. This will allow the user to view a list of nearby places they might be interested in traveling to. It will bring them to the Travel History page.

4. **The list of places to travel**

    a. This will allow the user to view a list of places they are interested in traveling to. It will bring them to the Travel Ideas Page.

5. **The settings icon**
    a. This will bring the user to the settings page.

6. **The home icon**
    a. This will bring the user to the home page.

7. **The menu icon**
    a. This will bring the user to the menu page.

THE TRAVEL HISTORY PAGE:
Sketch created by Ella

1. The list of places traveled
    a. This is a list of places the user has traveled using the globe gather app. It will display travel history from most recent at the top to least recent towards the bottom. It will display the date range and place of travel.
2. The settings icon
    a. This will bring the user to the settings page
3. The home icon
    a. This will bring the user to the home page
4. The menu icon
    a. This will bring the user to the menu page

THE TRAVEL IDEAS PAGE:
Sketch created by Ella

1. **The list of Places to travel**
   a. This is a list of bookmarked travel places the user is interested in traveling to and the dates they are interested in going to that location. It is ordered by date with closest travel date at the top and furthest travel date at the bottom.

2. **The settings icon**
   a. This will bring the user to the settings page.
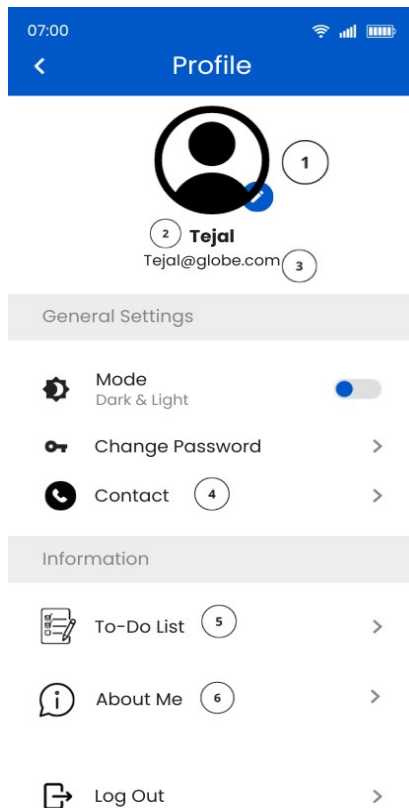
3. **The home icon**
   a. This will bring the user to the home page.

4. **The menu icon**

     a. This will bring the user to the menu page.

THE PROFILE PAGE:

The profile page by Tejal

1. Photo:
     This field is where users upload a picture to represent themselves on their profile. They can also make adjustments or edits to the photo to suit their preferences, ensuring their online presence reflects their desired image.

2. Username:
     The username is a unique identifier chosen by the user during the account creation process. It helps others find and interact with them on the platform, serving as their online identity.

3. Email:

This field contains the email address provided by the user during account registration. It serves as a means of communication and account recovery, ensuring the platform can contact the user when necessary.

4. Contact:

Users can input their contact information into this optional field, which may include phone numbers. While not mandatory, it can help facilitate communication with friends or acquaintances on the platform.

5. To-Do List:

This feature displays a list of tasks or activities created by the user. They can edit this list to add or remove items based on their plans, such as places they want to visit or tasks they need to complete. It serves as a personal organizer or reminder tool.

6. About Me:

In this field, users provide information about themselves to offer insights to friends and connections. It can include details about their interests, hobbies, profession, or any other personal information they wish to share. This section helps others get to know the user better and foster connections based on shared interests or commonalities.

THE TO-DO PAGE:

The To-Do page by Tejal

1. Places to Visit:

This field acts as a personal bucket list for the user, storing the names and locations of the places they aspire to visit. It helps users keep track of their travel goals and dream destinations.

2. Place Visited:

This field serves as a travel diary, recording the places the user has already visited in the past. It allows users to reminisce about their experiences and can also be a helpful reference when sharing travel recommendations with others.

3. Food Preferences:

Users use this field to specify their culinary preferences. It includes information about the types of food they enjoy, such as Indian, Italian, or any other cuisine. This information can be useful for making dining plans and recommendations among friends and fellow travelers.

4. Hotels:

In this field, users can list their preferred hotels or accommodation options for specific locations they plan to visit. It helps users keep track of their lodging preferences and can be a helpful resource when planning future trips or sharing travel tips with others.

SCREEN CONNECTIONS:
Created by Ella