Requirements Document

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I. System Features

Hermes is a chat application with productivity features.

1.1 Feature Description

1. **User Dashboard**:

   - This is the home page that is reached after successful authentication.
   - Users can access their personal chats as well as their groups through the user dashboard/home page

2. **Text and Voice Chat**:

   - Users will be able to communicate with each other via text messaging or voice calls.
   - Calls and text chats can be between two individual accounts or in a group.

3. **Roles**:

   - Roles are a means to identify a subset of people in a group.
   - Each user in a group can have multiple roles.
   - Each role is associated with a set of permissions. Example: HR role has the permission to add users and create channels in a group while the Engineer role has permission to only view and write messages in the channel.
   - Roles in a group can be manipulated by users with admin-like roles

4. **Channels**:

   - Each group in our application will have multiple subsections, which can have different purposes. These subsections are termed as a group's "channels". Example: Assume a group created for a company can have "channels" for HR, Engineering team, Quarterly meets, Yearly meets and so on.
   - A channel can either be a "voice channel" for the purpose of voice communication or a "text channel" for text communication between multiple users of a group.
   - The permissions a user has over a channel can be decided by the role assigned to them.

5. **Events Scheduler & Calendar**:

   - Each group will have access to its own event scheduler to improve productivity and schedule events. All events that are scheduled can be viewed on the calendar.
   - An event can be marked on the calendar with a start date, end date, and a description. The roles that are concerned with the event are also set while creating the event.

- Notifications will alert users for an upcoming event.
- An event can also be rescheduled by the person who created it. Subsequently, a notification is sent to all the other attendees of the event regarding the rescheduling of the event.
- Objectives/descriptions of the event can also be specified when creating an event.

II. Non-Functional Requirements

2.1 Performance Requirements

- Hermes aims to enable users to exchange messages at real-time with low latency.
- The application itself should be lightweight and given that the initial version is targeted at mobile users, it should also consume lesser memory.

2.2 Security Requirements

- No user is allowed to use Hermes without registering themselves to the service. The user will get access to the services upon successful registration and/or authentication.
- Once users are registered, every time they wish to use the application, they will be prompted to login with their credentials.
- Users will not be permitted to use the same credentials to create new accounts on Hermes
- Apart from authentication, sensitive user information must be stored in a secure manner and should be hidden from other users.

2.3 Portability

- Hermes should be developed with cross-platform functionality. The initial version of Hermes is targeted at mobile users (iOS 9 and above, Android 8 and above).

2.4 Scalability

- The application should be scalable in terms of functionality, user base, and data base.

2.5 Interface Requirements

1. **User Interface**:

    - Users should be able to intuitively use Hermes with minimal assistance.
    - The user interface should be user-friendly and easy to navigate.

2. **Hardware Interfaces**:

    - A working microphone for voice chats
    - A functional virtual keyboard or any external keyboard connected to the device for text chat

- A working Internet connection

3. **OS Permissions**:

- Contacts
- Microphone
- Notifications