



DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

IITI Student Community Application

CS 416/616: SERVICE-ORIENTED SYSTEMS

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User Manual (Student)

Current Application

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1 Introduction

Welcome to the IITI Student Community Application! This application serves as your central hub for accessing information and engaging with the IIT Indore campus community. Use this application to discover events, participate in discussions, purchase merchandise from various clubs, arrange ride-sharing, and stay connected with fellow students and campus activities. This manual provides a comprehensive guide to navigating and utilizing the features of the application.

2 Getting Started

2.1 Installation

Download the application from the link provided.

2.2 Login

1. Open the installed application on your mobile device.
2. You will be directed to a login screen. Authentication is managed using your official IIT Indore Gmail account.
3. Follow the prompts for Google OAuth 2.0 authentication. Please note: Access is restricted exclusively to verified IIT Indore accounts to ensure a secure community environment.

3 Navigating the App

The application utilizes a bottom navigation bar for easy access to its primary sections:

- **Home:** Your personalized dashboard displaying upcoming events from clubs you have subscribed to. See Figure 1.
- **Clubs & Events:** Browse a comprehensive list of all registered clubs and campus events. See Figure 1.
- **Merchandise:** View and purchase merchandise offered by various student clubs. See Figure 3.
- **Ride Sharing:** Post ride offers or search for available rides to and from campus. See Figure 5.
- **Discussion:** Engage in community discussions, share thoughts, and ask questions. See Figure 10.
- **Profile:** Manage your user profile, notification settings, club subscriptions, and log out. See Figure 9.

4 Features Guide

4.1 Events & Clubs

4.1.1 Viewing Events

- The **Home** tab presents a curated list of upcoming events hosted by clubs you follow.
- To explore all campus events, tap "See All Events" on the Home tab or navigate directly to the **Clubs & Events** tab.

- Events are displayed chronologically by default.
- You can utilize filters to narrow down events, for example, by date range or by the organizing club. Real-time updates ensure you see the latest event information as it's added or changed.

4.1.2 Viewing Event Details

- Tap on any event card to view its detailed information. This includes the event name, date, time, specific location, a detailed description, the name of the organizing club, and a list of students who have already registered. See Figure 6.
- If location coordinates are provided by the admin, an interactive map view might be available.

4.1.3 Registering for Events

- On the event details page, locate and tap the "Register Now" button. See Figure 6.
- Your registration status will be updated immediately within the app and recorded in the system. The button might change to indicate you are "Registered". See Figure 1.
- An option may appear to add the event directly to your personal Calendar for easy scheduling. See Figure 2.

4.1.4 Exploring Clubs

- Navigate to the **Clubs & Events** tab. Here you will find a grid or list displaying all active student clubs on campus. See Figure 1.
- Tap on a specific club's icon or name to view its profile page, which includes details about the club and a list of its upcoming events.
- You can subscribe to clubs that interest you. Subscribing ensures you receive relevant updates and notifications about their activities directly on your Home feed and via push notifications.

4.2 Notifications

4.2.1 Personalization

- Access your **Profile** or **Settings** section to customize your notification preferences.
- Specify which clubs you wish to follow or types of events you are interested in to receive tailored alerts. Preferences are stored to personalize your experience.

4.2.2 Receiving Notifications

- Based on your preferences, you will receive push notifications via Firebase Cloud Messaging (FCM) for new events, updates from subscribed clubs, or important announcements.
- If the application is currently open and in the foreground, a notification banner will appear within the app.
- If the application is closed or running in the background, the notification will appear in your device's notification tray. Tapping this notification will typically open the app and take you directly to the relevant event or information page. Notifications may be marked as 'read' once interacted with.

4.3 Community Discussion Board

4.3.1 Viewing Posts

- Navigate to the **Discussion** tab to view the community forum.
- Posts are displayed in reverse chronological order (newest first).
- Each post clearly shows the author's name (or email), the time it was posted, and the main content. See Figure 10.

4.3.2 Creating Posts

- Look for a "New Post," "+", or similar button within the Discussion tab.
- Tap the button, enter your message or question in the provided text field, and submit it. Your post will be timestamped and stored.

4.3.3 Commenting

- Tap on an existing post to view it in full and see any existing comments.
- You can add your own comments to join the conversation. Comments are stored under the specific post.

4.3.4 Managing Your Posts

- You have the ability to edit or delete the posts you have created. Edits update in real-time, while deletion removes the post permanently.

4.4 Merchandise Module

4.4.1 Browse Products

- Go to the **Merchandise** tab to explore items offered by campus clubs.
- Products are typically displayed in a grid format, showing the item name, price, the club selling it, and availability status. See Figure 3.

4.4.2 Filtering and Sorting

- Use available filter options to refine the merchandise view. Common filters include availability (e.g., "Available Only"), product type (e.g., T-shirt, Hoodie), or the specific club offering the item. See Figure 3.

4.4.3 Viewing Product Details

- Tap on a merchandise item to see its dedicated details page.
- This page provides more comprehensive information, including multiple product images (potentially in a carousel), a detailed description, price, available sizes and colors, any purchase deadlines, and options for customization if offered. See Figure 3.

4.4.4 Purchasing Items

- On the product details page, select your desired options (e.g., size, color) and enter any required customization text. See Figure 4.
- Enter your contact details as requested (e.g., phone number).
- Tap the "Buy Now" or "Pay Now" button. See Figure 4.
- You will be redirected to the secure Razorpay payment gateway to complete your transaction. See Figure 4.
- Upon successful payment confirmation from Razorpay, your order is confirmed within the app and recorded in the system.

4.5 Ride-Sharing Module

4.5.1 Viewing Ride Offers/Requests

- Access the **Ride Sharing** tab to view ride offers posted by other students or requests for rides. See Figure 5.
- Rides may be displayed based on factors like date, time proximity, or geographic proximity of routes.

4.5.2 Filtering Rides

- Utilize filter options to narrow down the rides displayed, commonly by date or by searching for specific destination or origin locations. See Figure 5.
- The system employs the Google Places API to provide location suggestions as you type, simplifying the search process. Ride matching considers route similarity within a defined distance threshold (e.g., 5km). See Figure 6.

4.5.3 Offering or Requesting a Ride

- Tap the "New Ride," "+", or similar button to initiate posting a ride offer or request. See Figure 5, 6.
- Enter your destination or origin. You can use search suggestions powered by Google Places API or potentially select a location directly on a map. See Figure 8, 9.
- Select the date and time for your planned travel.
- Submit your ride offer or request. It will be stored and made visible to other users.

4.5.4 Viewing Ride Details

- Tap on a specific ride card in the list to view its details.
- This typically includes the destination/origin, date and time, the name of the student who posted it, and possibly a map view highlighting the route or endpoint. See Figure 7.

4.5.5 Contacting Poster

- A "Contact Requester" or similar button may be available on the ride details page. See Figure 7.
- The exact functionality (e.g., in-app messaging, revealing contact details) depends on the final implementation.

5 Profile & Settings

Access the **Profile** tab. See Figure 9. From here, you can typically:

- View your registered details (Name, Email).
- Manage notification preferences (which clubs/event types to receive alerts for).
- Manage your club subscriptions (subscribe/unsubscribe).
- Log out of the application.

6 Troubleshooting

- **Connectivity:** Ensure your device has a stable internet connection (Wi-Fi or mobile data) for the app to function correctly, especially for real-time updates and actions.
- **Payment Issues:** If you encounter problems during merchandise payment, first check your internet connection. Then, verify the details associated with your Razorpay account or the payment method (bank account, card) you are using.
- **App Errors:** If the app displays an error message, it should ideally provide context about the issue. Try restarting the application. If the problem persists, check the app store for any available updates, as bug fixes are often released in newer versions.
- **Login Issues:** Ensure you are using your official IIT Indore email address. Access is restricted.

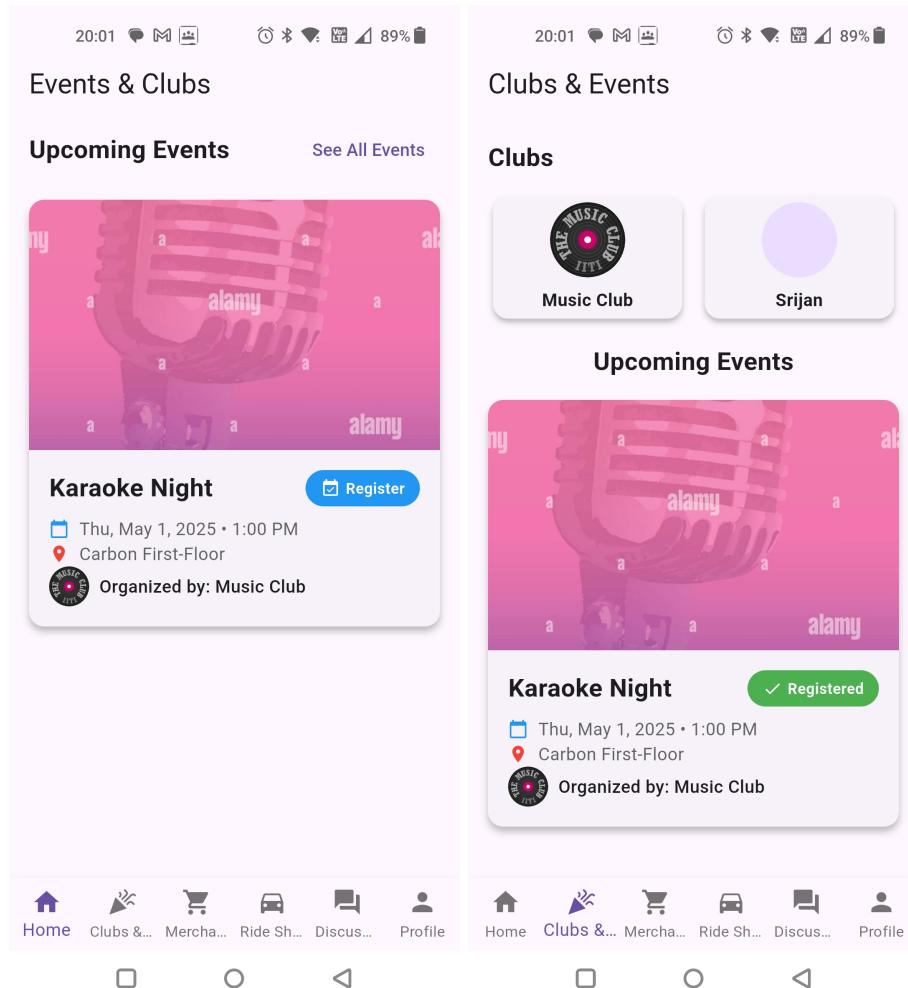


Figure 1: Home Page showing subscribed events and Clubs & Events screen showing club grid and all events.

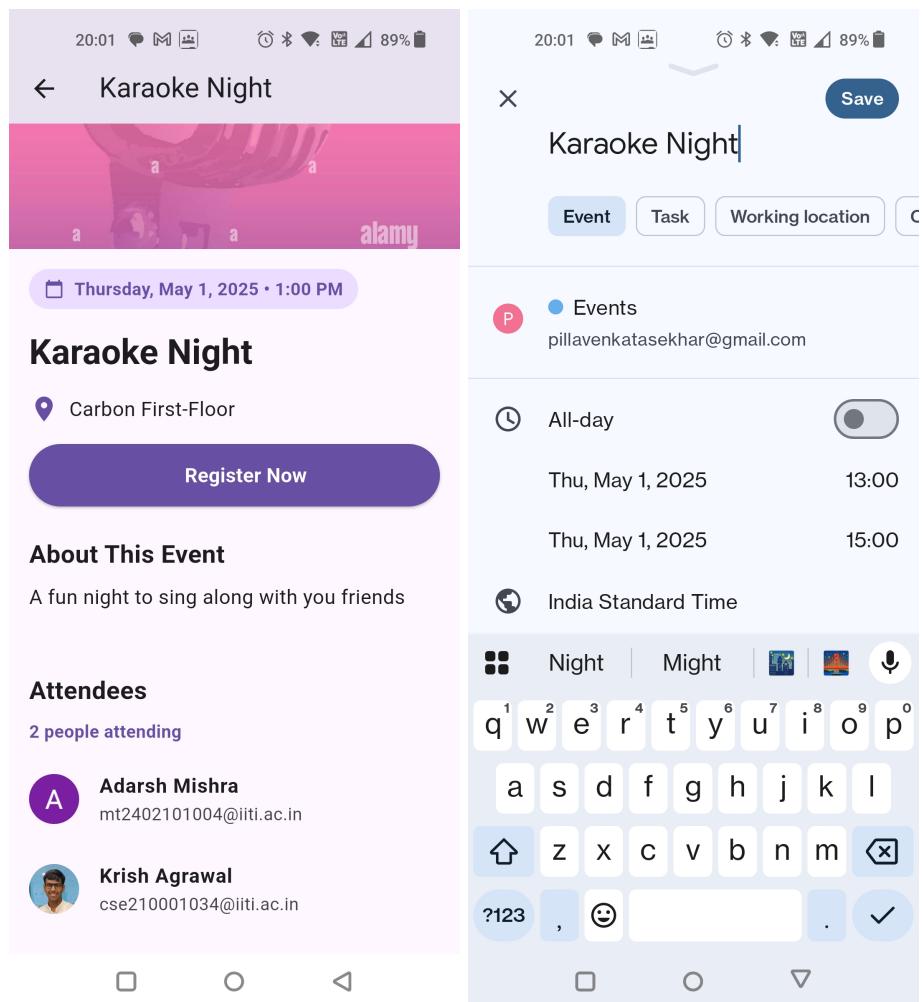


Figure 2: Event Details page (left) and Post-Registration Google Calendar integration prompt (right).

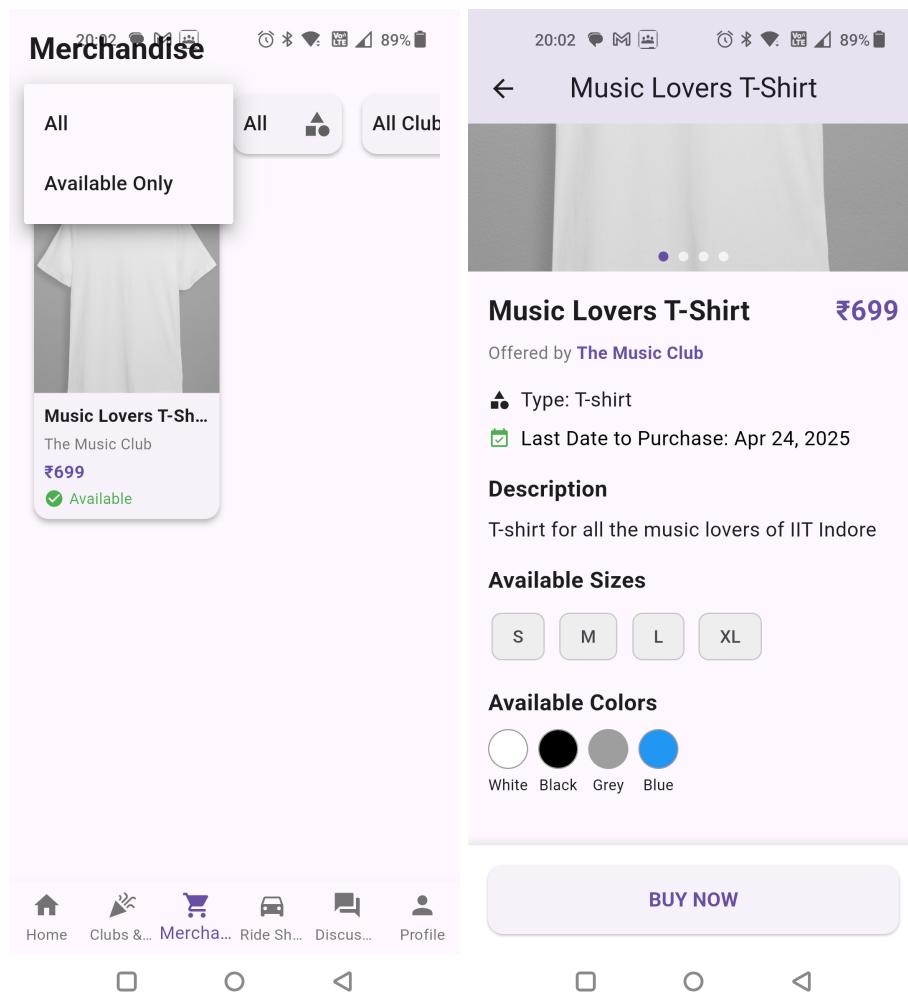


Figure 3: Merchandise Browse screen with filters (left) and Product Details page (right).

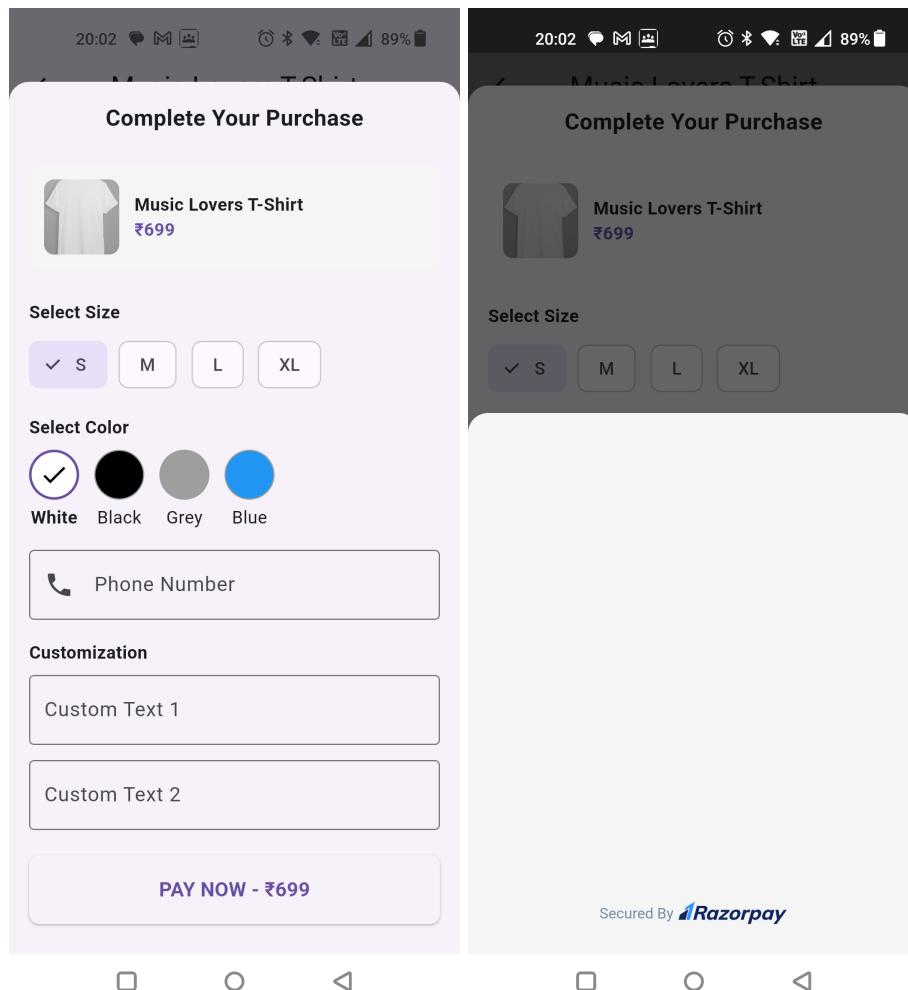


Figure 4: Merchandise purchase form with size/color selection (left) and redirection to Razorpay payment (right).

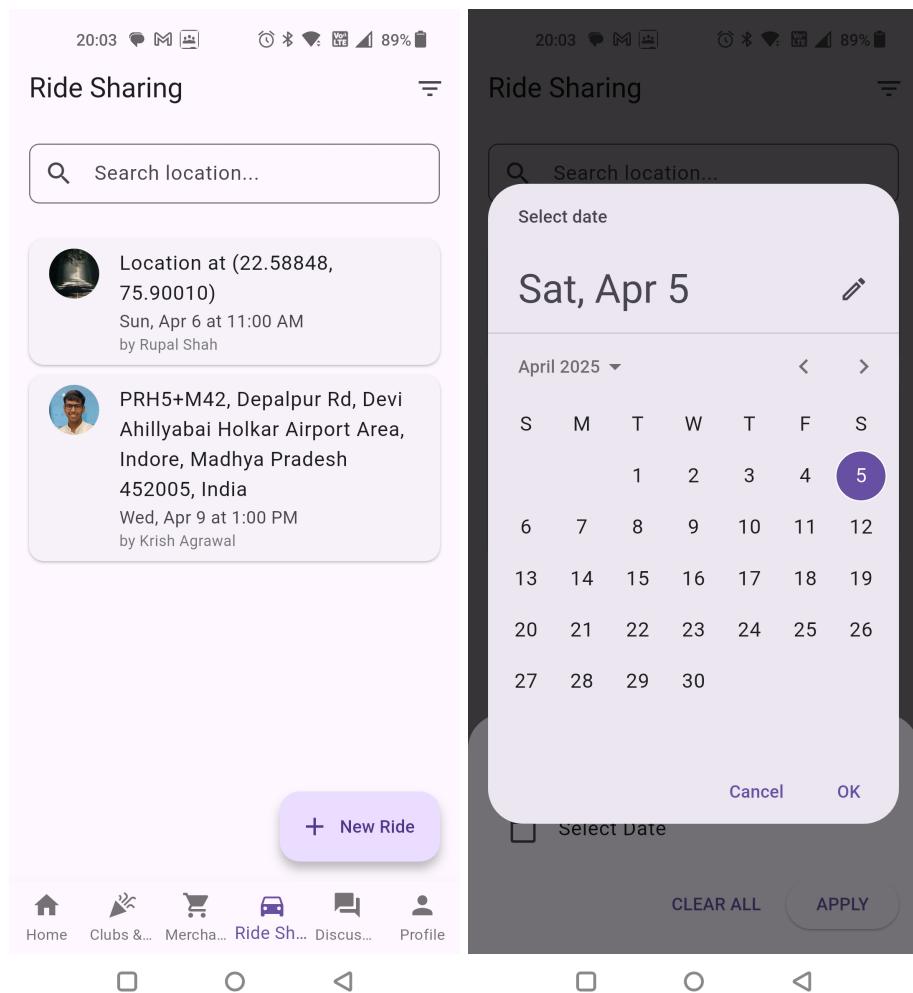


Figure 5: Ride Sharing main screen (left) and Date filtering option (right).

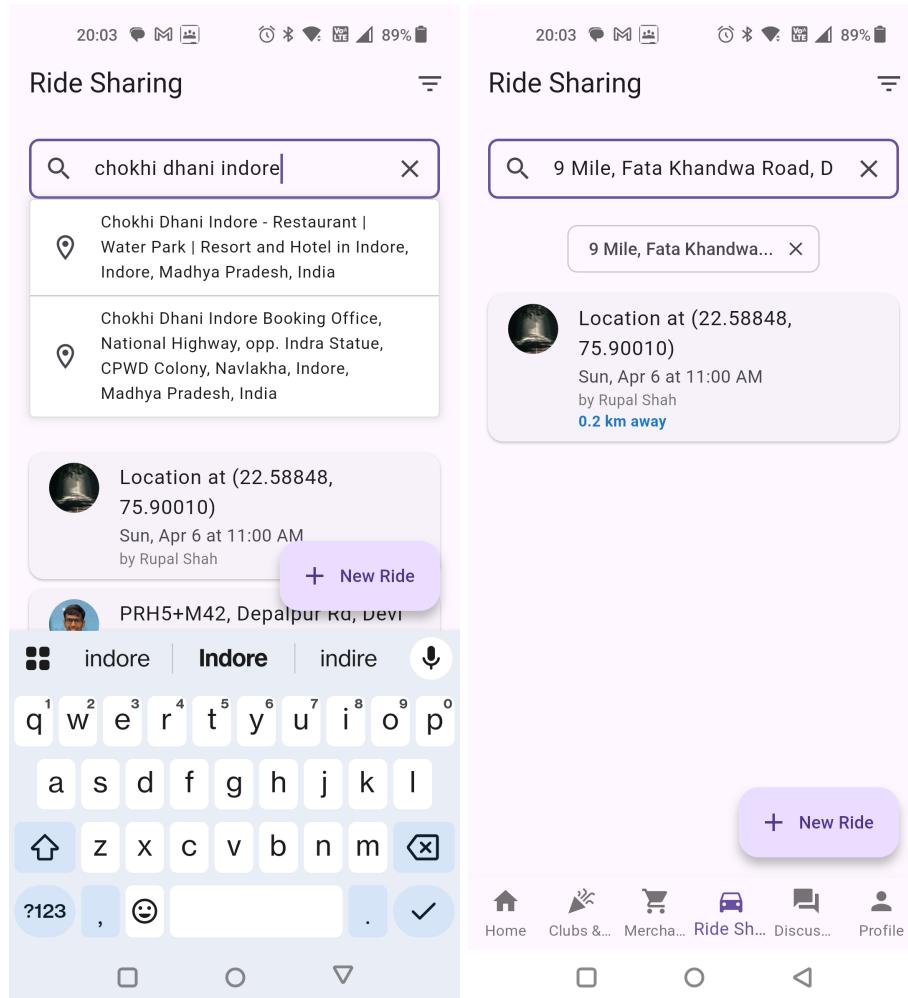


Figure 6: Ride Sharing location search using Google Places API (left) and results showing rides within 5km (right).

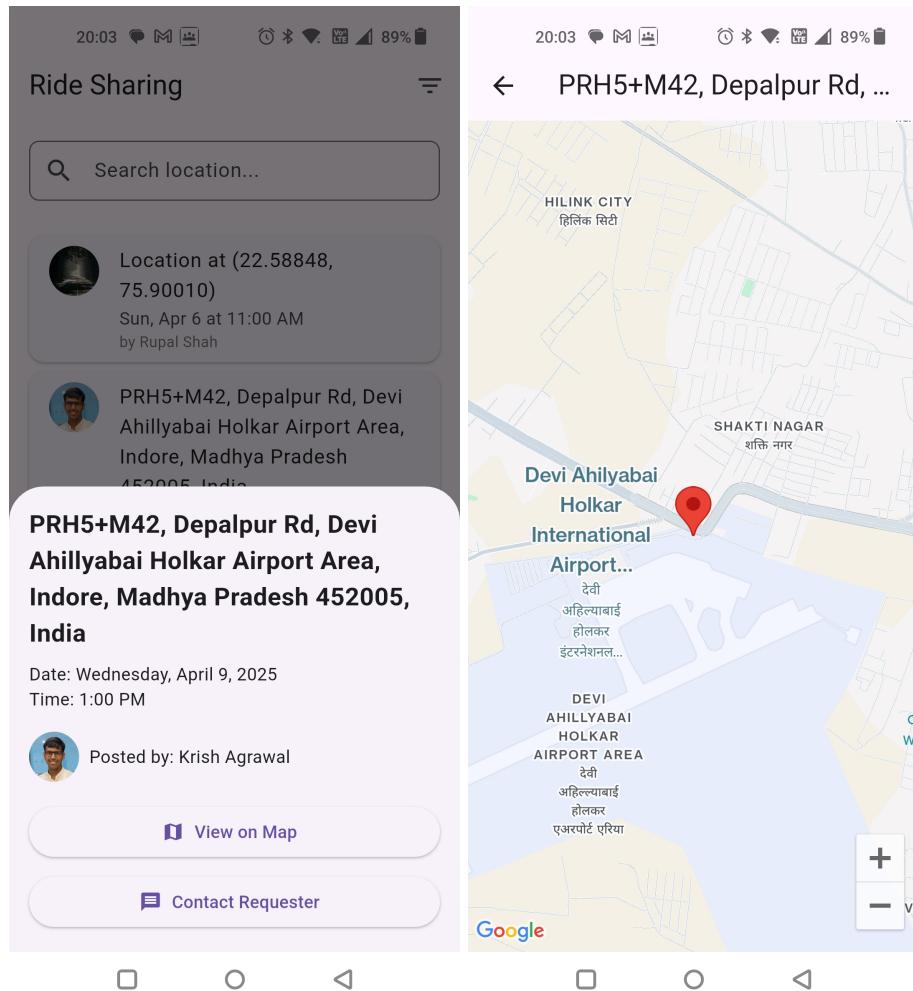


Figure 7: Ride Sharing details page showing poster info and map link (left) and Google Map view of the ride location (right).

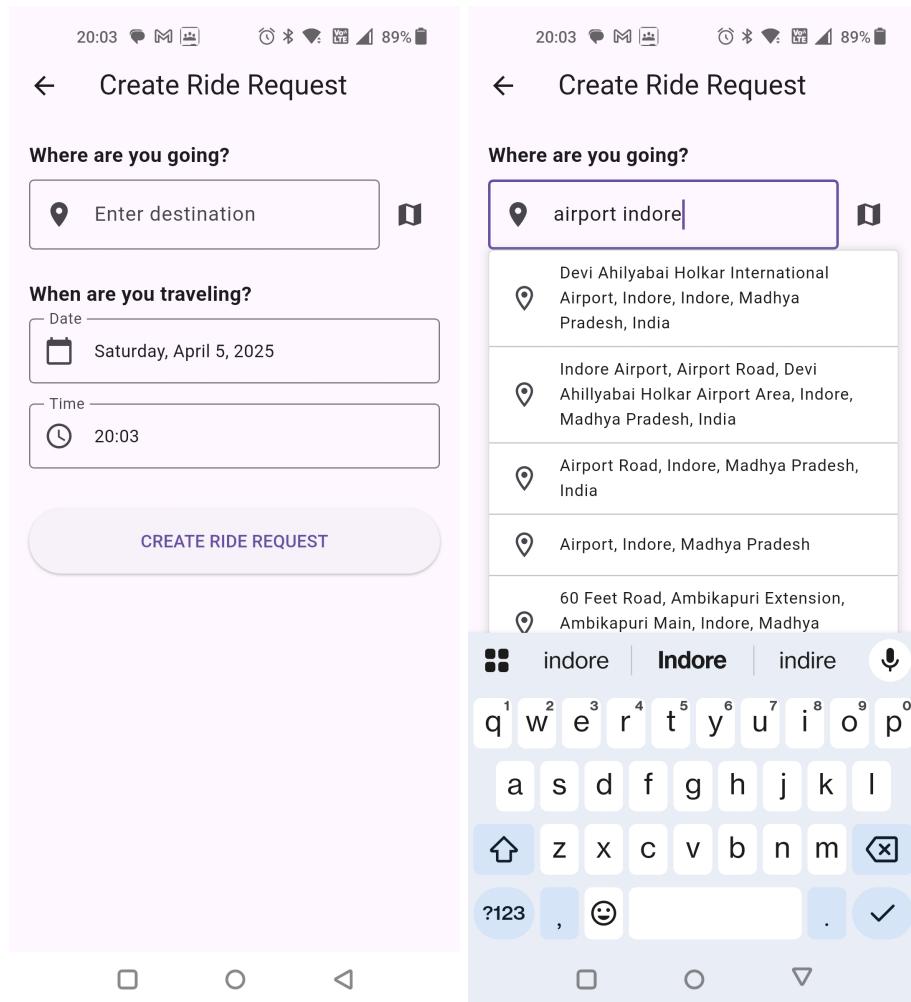


Figure 8: Creating a Ride Request form (left) and Location suggestions using Google Places API (right).

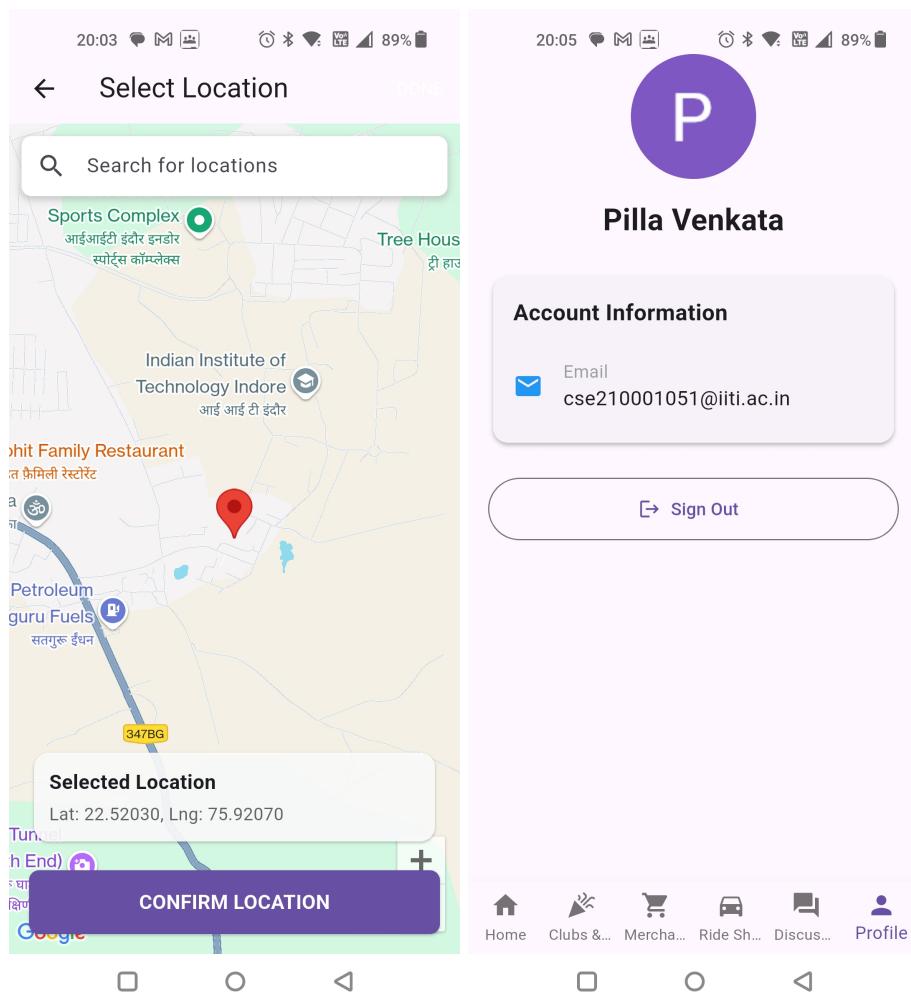


Figure 9: Selecting Ride Request location on map (left) and User Profile tab (right).

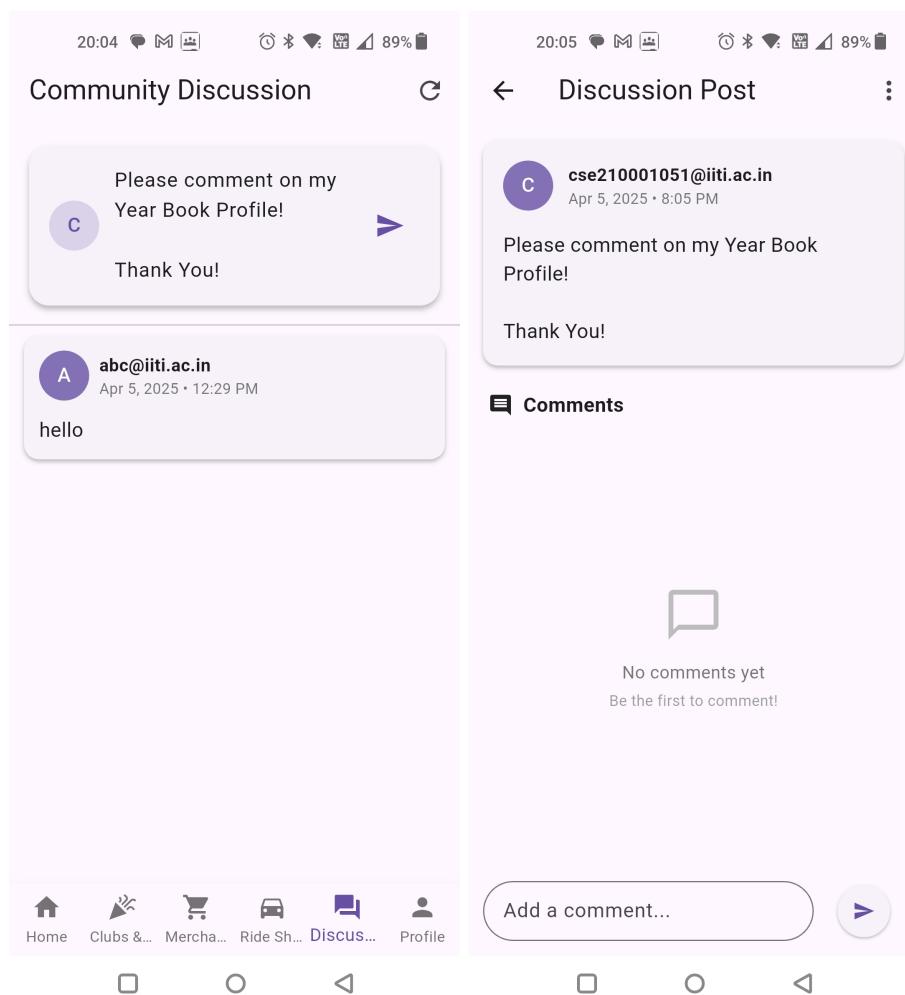


Figure 10: Community Discussion Board main view (left) and viewing a specific post (right).