

# **ACTIVE CIRCLE**

Connects outdoor enthusiasts by allowing them to create, join, and participate in group activities like hiking, swimming, and sports.



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### 1. Proposed App Idea for Prototype

ActiveCircle is a social and fitness app designed to bring together outdoor enthusiasts looking for group activities, from casual hikes to sports. Users can organize and join events, find activity partners, and engage with a vibrant, health-conscious community.

### **Novelty and Transformative Experience**

### What makes ActiveCircle Novel?

- Shared Hub for All Outdoor Activities: Instead of being sport-specific, ActiveCircle caters to multiple outdoor interests under one roof.
- Unified Community and Social Engagement: Integrates event feedback, Event chat to keep the community active and motivated, along with the RSVP system integrated within the app.
- Subscription-Based Premium Activities: Some activities are accessible only to the
  premium users, like access to more activities apart from hiking and swimming, Voice
  and video calls.

### **Transformative Experience for the User:**

- **Boost in Physical Activity:** Lowers the barriers to entry for discovering new outdoor hobbies.
- **Social Connections:** Users meet like-minded people, forging new friendships and networks around shared wellness goals.
- **Personal Growth:** Encourages participants to track improvement, share achievements, and stay motivated over time.

### **Background Research**

### **Market Competitor Apps:**

### • Strava:

A fitness tracking app, but it does not emphasize community event organization.

### AllTrails

Focuses primarily on hiking and trail navigation with limited social features.

### **Market Inspiration Apps:**

### • Duolingo: -

Gamified learning model where users are able to learn new languages while earning badges and achieving milestones

### • Meetup: -

It focuses on general social events but lacks fitness-specific features.

### **PACT Framework**

### People:

Target users include outdoor enthusiasts, fitness seekers, and social explorers. Primarily young adults (18-40), but open to all ages and skill levels. Users seek motivation, structured activities, and community engagement.

### **Activities:**

- Creating and joining events.
- Engaging in group chats.
- Voice and video call.
- Tracking and viewing the events
- Ratings and Feedback based on the event.
- View Notifications.
- The app fosters social connections and provides motivation.

### **Context:**

- Designed for mobile use in outdoor settings.
- Integrates social and fitness features.
- Supports real-time notifications.
- Enables group interactions.
- Includes potential offline capabilities.

### **Technologies:**

- Mobile Application for both Android and IOS.
- Includes push notifications.
- Features real-time chat.
- Ensures security via authentication.

### Value Proposition

ActiveCircle is a community-driven fitness app designed to bring outdoor enthusiasts together for group activities like hiking, swimming, and sports. Unlike traditional fitness apps, ActiveCircle goes beyond solo tracking by fostering real-world connections and motivation through event organization, social engagement, and gamification

### 2. Requirements Gathering

According to the instructions and the project plan, our team conducted a user study (survey) to better understand the needs, preferences, and behaviors of potential ActiveCircle users.

### 2.1 Purpose / Objectives for Requirements Gathering User Study

The main objectives of our user study were:

- a. **Identify User Motivations**: Understand why people are (or are not) engaging in outdoor activities, and what would motivate them to participate in group events.
- b. **Uncover Pain Points**: Find out the obstacles people face when trying to be active, such as scheduling constraints, not knowing local groups, or lacking motivation.
- c. **Evaluate Desired Features**: Learn which specific features (e.g., event creation, real-time chat, gamification) most appeal to participants.
- d. **Assess Social vs. Solo Preferences**: Determine how important social interaction is for maintaining regular fitness routines.
- e. **Gauge Technology Familiarity**: Understand participants' comfort levels with fitness apps, GPS, chat tools, or other digital engagement features.

### 2.2. Choice of User Study and User Sample

- Method: Online survey (using a short, structured questionnaire).
- **Target Users**: Primarily young adults (age 18–40) who are interested in fitness, outdoor activities, and social connections. Some older adults (40+) were also included if they regularly engage in group fitness or outdoor activities.
- Sample Size: 20 total participants completed the survey.

### 2.3 Draft of the User Study Survey

Below is a condensed version of the survey questions used:

### a. Age Group

- Under 18
- 18-24
- 25-34
- 45-54
- 55+

### b. Gender

- Male
- Female

### c. What is your level of physical activity?

- Sedentary (Little or no exercise)
- Lightly active (1-3 times per week)
- Moderately active (3-5 times per week)
- Very active (6+ times per week)

### d. Which outdoor activities do you participate in regularly? (Select all that apply)

- Hiking
- Running
- Cycling
- Swimming
- Team Sports (e.g., soccer, basketball)
- Other

### e. How do you currently find outdoor activities or sports groups?

- Social media (Facebook, Instagram, etc.)
- Meetup groups
- Fitness apps (Strava, AllTrails, etc.)
- Word of mouth
- Other

### f. What motivates you to participate in group activities?

- Socializing
- Fitness goals
- Competition
- Mental well-being
- Other

### g. Do you track your fitness or outdoor activities using an app?

- Yes
- No

### h. If yes, which fitness apps do you use? (Select all that apply)

- Strava
- AllTrails
- Nike Run Club
- MyFitnessPal
- Other

### i. What features do you look for in an outdoor activity app? (Select all that apply)

- Event organization
- Finding activity partners
- Fitness tracking
- Chat with participants
- Gamification (badges, challenges)
- Other

### j. How important is it for you to have real-time notifications for upcoming events?

- Not important
- Somewhat important
- Very important

# k. Would you be interested in earning badges and rewards for participation in activities?

- Yes
- No

### 1. How likely are you to use an app that helps you find and join group activities?

- Very unlikely
- Unlikely
- Neutral
- Likely
- Very likely

### m. What challenges do you face when trying to participate in group activities?

- Finding reliable participants
- Scheduling conflicts
- Lack of motivation
- Safety concerns
- Other

### n. What is one feature you would love to see in an outdoor activity app?

(Open-ended text box)

### o. Do you have any concerns about using an app like ActiveCircle?

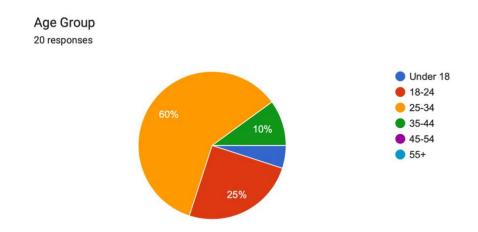
(Open-ended text box)

### p. Any additional comments or suggestions?

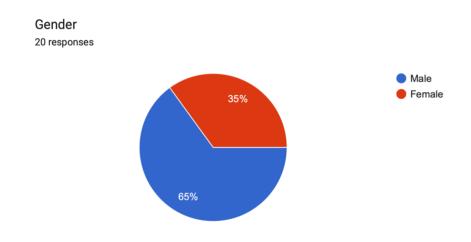
(Open-ended text box)

### 2.4 Data Visualization and Analysis

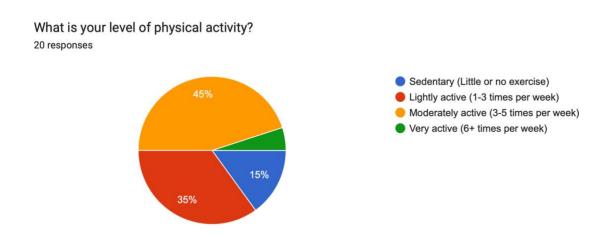
From **20** participants, we highlight a few summarized findings:



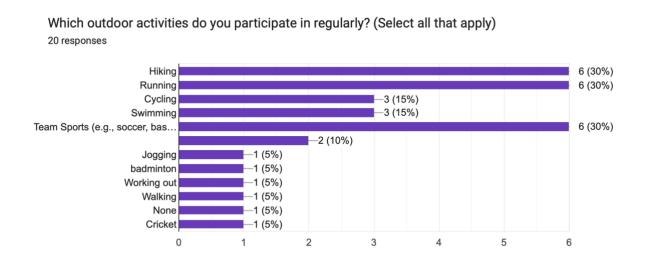
**Interpretation**: The largest demographic is 25-34-year-olds, suggesting an adult audience. This may shape design choices toward a more mobile-friendly, social-media-integrated experience.



**Interpretation:** There is a slightly higher male representation (65%). While this isn't a major imbalance, it's worth considering any gender-specific preferences or pain points when designing user flows to ensure the app remains inclusive and engaging for all users.

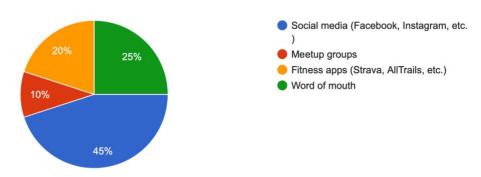


**Interpretation:** About half are moderately active, and 35% are lightly active and the rest seem a little more active. An app might be used by those trying to increase consistency so providing gentle motivation and scheduling support could help them move from light to moderate or moderate to very active.

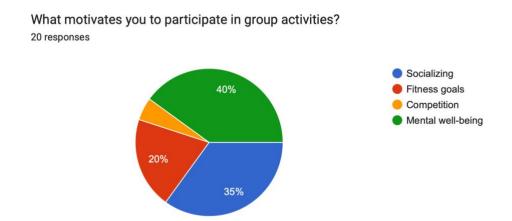


**Interpretation:** A broad range of activities with multiple picks around solo, group type exercises like hiking, running, and team sports. The app might need to handle both solo sports (where users just want a partner or small group) and structured, large group sports.

How do you currently find outdoor activities or sports groups? 20 responses

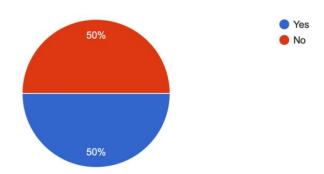


**Interpretation:** Most rely on social media and informal networks (word of mouth). This indicates an opportunity to create a more organized digital platform for event discovery, because many are not using dedicated fitness or event apps yet.



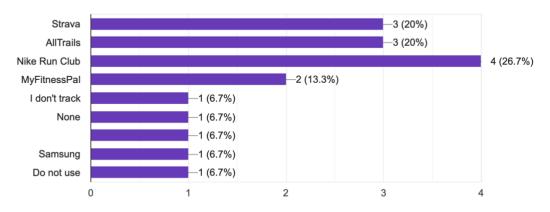
**Interpretation:** In most users, Mental well-being and Socializing motivate them to participate in group activities, whereas very few are motivated through fitness goals. Based on this, the app might highlight ways to meet new people or join events with a shared sense of friendly challenge.

Do you track your fitness or outdoor activities using an app? 20 responses

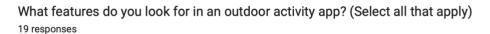


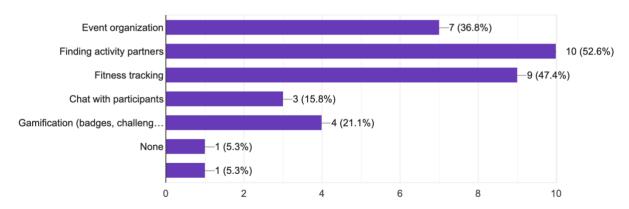
**Interpretation:** The result shows that 50% are using an app to track their fitness and outdoor activities, whereas the rest 50% are not. So, we might or might not provide this feature.

If yes, which fitness apps do you use? (Select all that apply) 15 responses

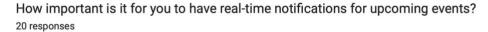


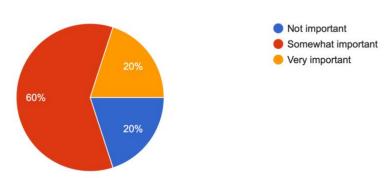
**Interpretation:** One single dominant app appeared as Nike Run Club following Strava and AllTrails in second place. ActiveCircle can differentiate with group-based social features and multi-sport coverage.





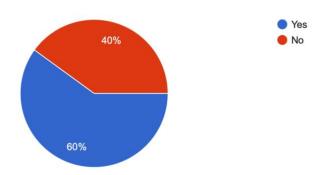
**Interpretation:** The top two revolve around finding activity partners & fitness tracking. Gamification and chat with participants are less demanded but still relevant. These findings suggest that the biggest gap is in coordinating events and connecting with others, more so than strict fitness metrics.





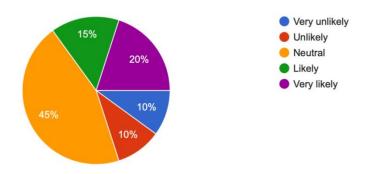
**Interpretation:** The majority want real-time updates with a combination of somewhat important and very important. This strongly suggests push notifications or in-app alerts for upcoming events.

Would you be interested in earning badges and rewards for participation in activities? 20 responses



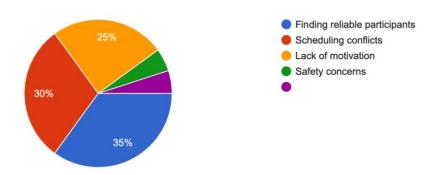
**Interpretation:** 60% of users want badges, whereas the rest 40% do not want. So, we might be providing this feature in our app.

How likely are you to use an app that helps you find and join group activities? 20 responses



**Interpretation:** Combining, 80% are likely or very likely or neutral to use an app that can help to find and join group activities. Another 20% is unlikely or very unlikely, could be convinced with compelling features.

What challenges do you face when trying to participate in group activities? <sup>20 responses</sup>



**Interpretation:** Scheduling conflicts and finding reliable participants are big hurdles. Integrating a user reputation system, flexible scheduling, or waitlists might help. Also, consider motivation-enhancing features like reminders or group accountability.

### What is one feature you would love to see in an outdoor activity app?

(Open-ended text box)

16 responses

Social media integration
Reminders for the events.
None
Chat
background check of people
Real-time environmental alerts. This could include updates on weather changes, air quality, wildlife sightings, or trail conditions based on the user's location.
More flexible hours
To track my friends one on the trail in real-time so that if I could not join, I still track if he/she is ok.

More badges for small accomplishments
Map tracking
NA
beautiful UI
More events and host my own events
Finding activity partners

**Interpretation:** Most revolve around convenience (alerts, reminders) and safety/trust (background checks, location sharing). This suggests that while social and group aspects matter, user trust and security are also concerns.

# Do you have any concerns about using an app like ActiveCircle? (Open-ended text box) 14 responses No Not yet Privacy NA no No i don't have any.

**Interpretation:** While most users expressed no concerns, privacy was mentioned. The app should ensure secure handling of personal data and give users control over what information (like location or activity updates) they choose to share.

# Any additional comments or suggestions? (Open-ended text box) 6 responses No None NA no comment The User Interface should look attractive.

**Interpretation:** While most had no additional comments, one response emphasized the importance of an attractive user interface. Focusing on a clean, visually appealing design will enhance user experience and engagement.

### 2.5 Insights from the Results

**Demographics**: The majority of respondents are in the 25-34 age range, suggesting a tech-savvy audience likely comfortable with mobile apps and social networking. This points to the importance of designing a mobile-friendly, social-media-integrated experience.

**Group-Focused**: A high interest in finding activity partners emphasizes the need for robust search, matching, and social features. As many currently rely on informal networks (e.g., word-of-mouth) and social media, there's a gap for an organized digital solution for event discovery.

**Fitness Level**: Roughly 45% are moderately active, 35% are lightly active. Features that support habit-building and consistent event scheduling would appeal.

**Motivations**: Socializing & mental well-being rank high. Encouraging friendly challenges, leaderboards, or group achievements could enhance engagement.

**Notifications**: 20% want very important real-time notifications while 60% want somewhat important. Incorporate push alerts for event reminders, scheduling changes, etc.

**Gamification**: 60% want badges; 40% do not. This calls for optional gamification so it doesn't alienate the latter group.

**Challenges**: Scheduling conflicts, finding reliable partners, and lack of motivation are the big three. The app should include flexible scheduling and ways to vet reliability (e.g., user ratings, in-app participation history).

**Privacy & Safety**: Privacy concerns and requests for background checks highlight a need for secure data policies, user blocking/reporting features, or verified identity methods.

**App Differentiation**: Many do not use existing fitness apps or only use them lightly. A single solution that bridges multiple sports, organizes group events, offers basic tracking, and fosters trust/safety could address these gaps.

### 3. Requirements Generation

Requirements generation was carried out by analyzing user stories (personas and scenarios) based on the target user types discovered during our research and from the creative design perspective of the team.

### 3.1 Personas and Scenarios

Below are three representative personas that reflect diverse motivations, goals, and contexts for using ActiveCircle.

### **Carlos (By Pravesh Poudel)**

- Age: 31
- Occupation: Financial Consultant (works long hours)
- Lifestyle: Lives in the city, craves nature and group hikes on weekends
- Challenges: Struggles to coordinate reliable hiking partners, experiences last-minute cancellations, worried about trail difficulty and safety

### Scenario

- Carlos is at his office on a Friday afternoon as he finalizes a stressful work week. He wants to plan a moderate-level hike for Sunday to clear his head and stay active.
- He reaches out to friends via group chats. Some are unsure, others can't make it, and a
  few might come but haven't confirmed. He checks local social media hiking pages, but
  the posts often reference older events or advanced multi-day treks far outside the city.
- By Saturday, Carlos was anxious because no one had committed anything. He considers going alone but recalls when he got lost on a rugged trail and felt uneasy about safety.
- He tries searching for fresh meetups that focus on moderate difficulty and scenic routes.
   Most search results point him to random Facebook events that don't show actual attendance or skill levels.
- Frustrated and short on time, Carlos either ends up going solo (which he doesn't enjoy
  as much) or scrapping the hike altogether. He wishes there was a single place to find
  well-organized group hikes, where he could easily confirm participation, see route info,
  and share updates if plan change at the last minute.

### Kate (By Lakshantha)

- Age: 27
- Current Life Stage: New mother, caring for an infant
- Past Fitness Routine: Used to join yoga and aerobics classes
- Challenges: Inconsistent schedule (naps, feedings), wants quick, baby-friendly outings, uncertain group participation.

### Scenario

- Kate is at home after a sleepless night, remembering how she used to attend Saturday yoga classes. Now, with a newborn, those scheduled classes don't mesh well with her baby's unpredictable routine.
- She attempts to reach out on a local "Moms in the Park" Facebook group, hoping for a stroller-friendly walk. The group is large, and most posts either get lost or don't confirm an actual meet-up location or time.
- A few neighborhood moms say they're interested but can't decide on a good day or place. By the time Kate checks back online, the discussion thread is buried under unrelated posts.
- One weekend, she does gather the energy to drive to a small park, thinking at least one other parent might show up. She waits, but no one arrives. Unsure if it was canceled or if people just forgot, Kate ends up walking alone for a bit and feeling discouraged.
- She envisions a more reliable way to find local, baby-friendly activities on short notice, track who is actually attending, and perhaps see a small reminder or child-friendly label. She misses the group spirit that helped her stay active and motivated in the past.

### Nate (By Rahul)

- Age: 24
- Occupation: Tech Support Specialist
- Fitness Background: Loves casual sports (Soccer, Basketball), not fond of formal leagues
- Challenges: Hard to gather enough players, scattered communications, no easy scoreboard or skill-level check

### Scenario

- Nate recalls his high-school days when pickup sports were easy—just a few friends, a
  ball, and a local park. Now, living in a new city for work, he tries to recreate that same
  casual vibe.
- He sends out text messages to a handful of acquaintances, inviting them for a light soccer match on Saturday. Some respond late, others prefer using different chat apps, so the details get scattered.
- Without a centralized sign-up, Nate can't tell how many people are actually in. Some say "maybe," but no one logs a firm commitment. Come Saturday, he shows up at a local field. Only two other people arrive. They can't run a proper game, so they just shoot the ball around.
- Another time, he tries a local community center notice board. The interest sign-up sheet garners random names with no contact info, so real coordination never takes off.
- Nate longs for a single system where he can post a casual soccer or basketball event, tag it "friendly, mid-level," and see an actual headcount. He'd also love a basic scoreboard or mini-challenge feature, just enough to keep things interesting without a rigid league format.

### 3.2. Requirements Generation (Designer Analysis)

Below is a concise requirements list derived from the three personas (Carlos, Kate, and Nate) and their fictional but realistic scenarios. Each requirement addresses the user needs and challenges identified during our analysis.

### A. Event Discovery & Creation

- **Flexible Event Types**: Accommodate short-notice pop-up events (e.g., a quick stroller-friendly walk) as well as structured group hikes or casual sports.
- Category/Tag System: Allow organizers to label events (e.g., moderate hike, baby-friendly, casual soccer) for clarity on difficulty or style.
- Location & Time Filters: Enable users to search by area, date, or skill level

### **B. RSVP & Participant Confirmation**

- Quick Yes/No/Maybe: Users can see how many people plan to join (important for people to ensure enough players for a match).
- **Real-Time Event Updates**: Let organizers share last-minute changes (e.g., Switching to an alternate trail due to weather).
- Capacity Indicators: Show recommended group size or maximum spots available (relevant for limited field space or tight trail parking).

### C. Communication & Group Chat

- **Dedicated Event Chat**: Consolidate all discussions (so participants don't have to juggle multiple apps).
- **Opt-In Notifications**: Help users stay informed about group messages, event updates, group chat mentions, or upcoming challenge deadlines without being overwhelmed.

### D. Profile & Preferences

- **User Profiles**: Capture typical schedules, skill levels, or child-friendly needs (For eg, infant/stroller, casual sports, moderate-level hikes).
- **Personalized Activity Feed**: Show relevant events based on user-selected categories—family-friendly, pick-up sports, etc.

• Calendar Integration: Sync events with personal calendars to minimize scheduling conflicts.

### E. Gamification & Motivation

- **Badges & Milestones**: Offer small achievements for event participation (e.g., different workout level badges).
- **Group Challenges**: Let participants create friendly challenges (distance or participation-based), that appeal to the user for light competition without strict leagues.

### F. Safety & Reliability

- GPS-based location sharing, with the ability to disable or limit who can see it.
- Emergency contact sharing or check-in reminders for events.

### 3.3. Synthesis of Requirements Gathering and Generation

Combining insights from the user study results (Section 1) and the designer-driven requirements (Section 2), we created a final, prioritized list of requirements for ActiveCircle:

### a. Must-Haves (High Priority)

### • Event Creation & Discovery

A single place to **create** or **find** activities (hikes, stroller walks, casual sports) with tags like moderate hike or baby-friendly.

### • RSVP & Quick Participant Confirmation

Simple yes/no/maybe for each event, so users immediately see enough players for sports or confirm safe group size for hikes.

### • Dedicated Event Chat

One integrated discussion thread to avoid scattered messaging across multiple apps or social pages.

### • User Profiles & Preferences

Basic user info (e.g., skill level, child-friendly status) that auto-filters relevant events or recommended feed items.

### • Safety/Check-In Tools

Options for route info, child-friendly labels, location sharing (during the event), and emergency contact references.

### **b. Should-Haves (Medium Priority)**

### • Calendar Sync

Users can sync events with personal calendars, helping them avoid time conflicts.

### • Capacity Indicators

Show recommended or max spots per event (helpful for small fields or limited parking).

### • Real-Time Event Updates

Organizers can push last-minute changes if a trail closes or a soccer field is unavailable.

• **Notifications & Reminders**: Users receive push notifications for event updates, registration confirmations, or group chat mentions.

### c. Could-Haves (Low Priority / Nice-to-Haves)

### • Light Gamification

Optional badges or milestone achievements (e.g., 5 Group Hikes Completed), keeping motivation high but not overwhelming.

### • Advanced Filtering / Tagging

More granular tags (e.g., evening hikes, dog-friendly, indoor sports for rainy days).

### • Enhanced Group Challenges

Monthly distance challenges or mini leaderboards for people who enjoy friendly competition.

### • Detailed Organizer Reputation System

Ratings for event hosts, beyond a simple feedback loop, for building robust trust and reliability.

### 4. Design

### 4.1. Design Patterns Used

We followed widely accepted mobile app design patterns, modern app structure, and custom shapes to create a smooth and intuitive user experience. The are listed below: -

### • Navigation Bar Pattern (Bottom Nav):

A bottom navigation bar with four key icons (Home, Events, Profile, Settings) gives users quick access to the main areas. This follows the standard pattern used in many mobile apps like Instagram and Google Maps.

### • Modal/Dialog Pattern:

Modal popups were used for feedback confirmation (e.g., event joined) and premium subscription prompts to focus user attention on high-priority actions without navigating away from the current context.

### • Card-Based Lists:

Event listings, both under specific activities and under "Your Events," are displayed as cards with light shadow and rounded corners, making them visually distinct and touch-friendly.

### • Progressive Disclosure:

Advanced features (e.g., voice/video call, more activities) are hidden behind a premium subscription paywall to reduce cognitive load for new users while offering more options for power users.

### • Form Patterns:

All input screens (e.g., Create Activity, Edit Profile) use clear labels, input constraints, and logical grouping of fields to minimize user errors and encourage completion.

### • Onboarding Tour:

The app uses a multi-screen introduction to highlight core features like event creation, RSVP, and group chat.

### • Floating Action Buttons (FABs):

Used for high-priority actions like "Create Event."

### • Visual Filters:

Activities like hiking, swimming, and sports can be selected and toggled visually.

### 4.2. Design Rationale

- Accessibility: Buttons, cards, and form fields use large touch targets and legible fonts to enhance usability.
- **User Motivation:** Early onboarding emphasizes core app values (connection, reliability, simplicity), motivating users to complete setup.
- **Flow Simplicity**: Each action (log in, select interests, etc.) occurs in a distinct screen to avoid overload.
- Clarity in Communication: Features like RSVP Confirmation, Push Notifications, and Dedicated Chat are not only explained but visualized during onboarding.

### • User-Centric Personalization:

The app greets users by name (Welcome, John) and allows them to set fitness preferences. This helps build a personal connection and improves engagement.

### • Soft Gradients & Rounded Corners:

Visual design emphasizes friendly tones and approachability, using rounded shapes and gradients that are designed to be readable under varied lighting conditions — ideal for outdoor usage.

### • Focus on Community Interaction:

Group chat, video, and voice calling make this more than an event app — it's a social engagement platform for active families.

### • Subscription Upsell:

We chose to place premium-locked content in view, but grayed out or behind a Subscribe link, to encourage curiosity and conversions.

### 4.3. Overall Workflow on Figma With Screenshots:

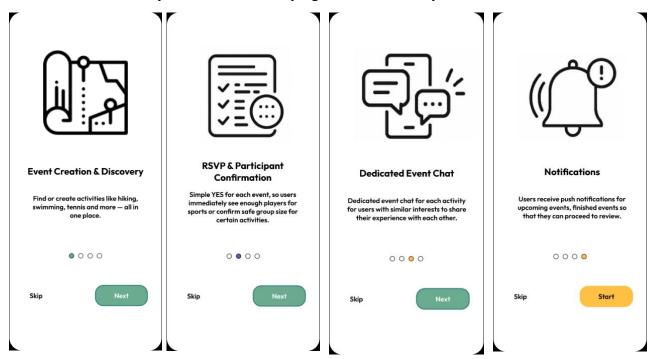
### A. Splash and Intro Tour Screens

The initial launch sequence includes:

Splash Screen: Displays the logo and sets the app's tone.



**Intro Tour:** Introduces users to the app's core benefits such as activity discovery, joining local events, community interaction, and staying active with family.



### **B.** Authentication Screens

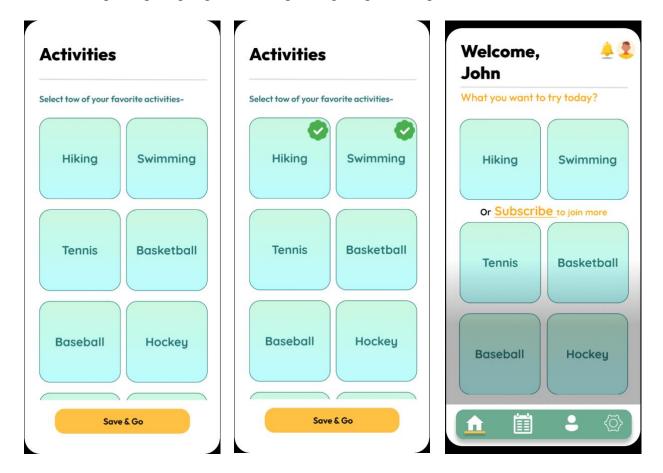
Users can log in and sign up via Email or Code.

Sign up with a user-friendly form. These screens are designed for simplicity, with emphasis on visual hierarchy and error minimization.

Log In Here to continue planning your trip!	Sign Up Here to start planning your trip like a pro!	Log In With Code
l address	Name	Enter code sent to the email address ***********************************
ndoe@gmail.com	John Doe	
vord	Email address	
	johndoe@gmail.com	
	Password	Submit
Log In		
OR		
	Sign Up	
Sign Up		
Log in with		
G G		

### C. Activity Selection (Home/Dashboard)

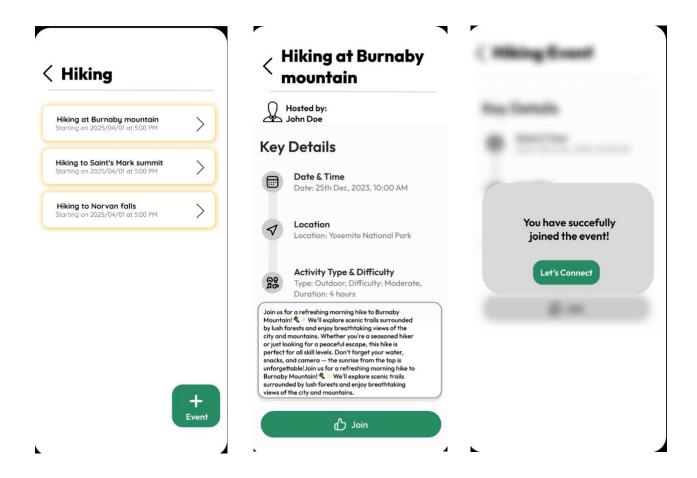
The Home screen welcomes the user by name and allows them to select two default activities (e.g., Hiking, Swimming). Additional activities (e.g., Tennis, Basketball) require a subscription, prompting a modal explaining the premium plan.



### D. Activity Listings and Details

Each activity (e.g., Hiking) leads to:

- A list of upcoming events with titles and timestamps
- A detailed event screen that includes the host, date, location, difficulty, and description
- An animated "Join" button and a modal confirmation upon successful joining



### E. Chat and Communication

A built-in event chat feature supports:

- Group messaging
- Image sharing
- Voice and video calling (available for premium users)
- These promote social interaction among participants, building community engagement.





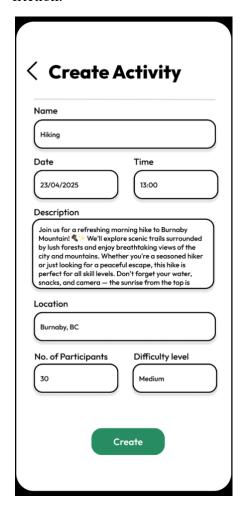


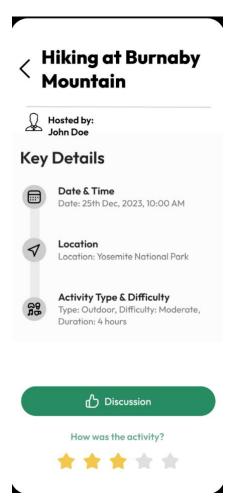
### F. Create Event

Users can create custom events by filling in:

• Activity name, date, time, description, Location, participant count, and difficulty.

The layout is designed to guide the user step-by-step through event creation with minimal friction.



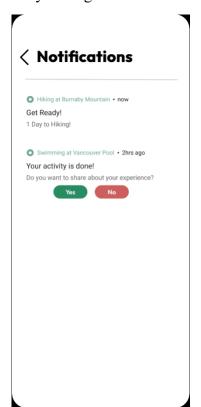


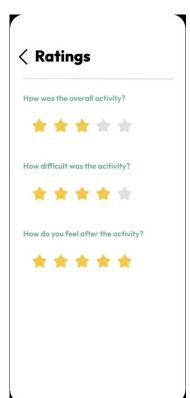
### G. Notifications and Feedback

### Users receive:

- Activity reminders
- Prompts to provide feedback after events

The Ratings screen uses a star-based system to evaluate the overall experience, difficulty, and post-activity feeling.

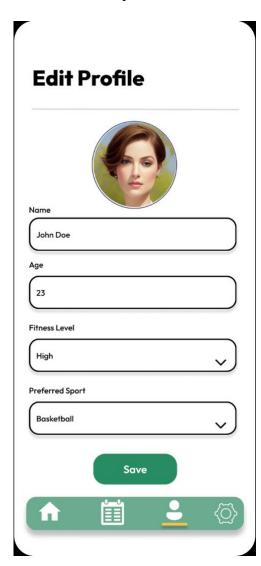


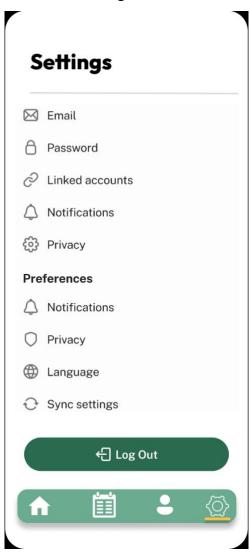


### H. Profile and Settings

### Users can:

- Edit their profile (e.g., name, age, preferred sport, fitness level)
- Manage settings for privacy, language, linked accounts, and more
- These are placed under accessible tabs in the bottom navigation.



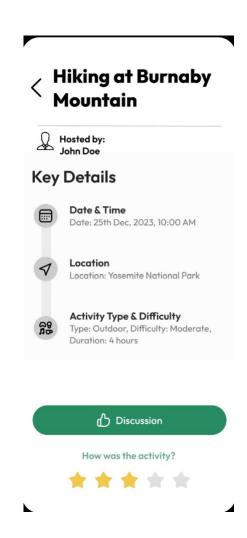


### I. Your Events

This screen provides an organized list of:

- Upcoming and past events
- Allows easy access to event details





## **5. Designer Based Prototype Evaluation**

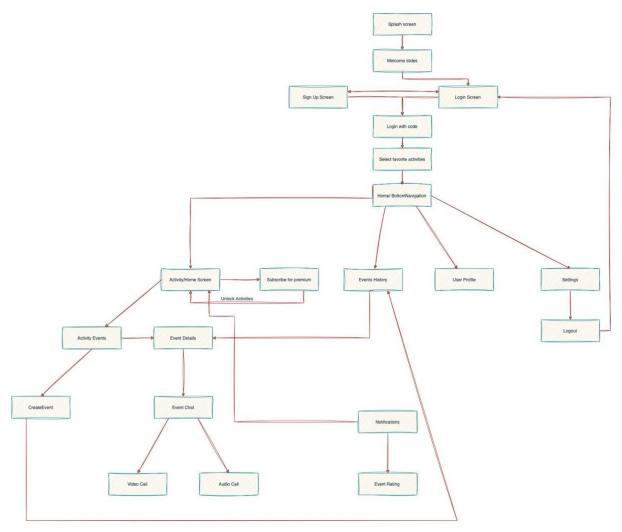


Figure 1: User Journey Map

## 6. User-based Prototype Evaluation (User Study 2):

## 6.1. Purpose or objectives for Prototype Evaluation User Study:

- Assess Usability: Understand how easily users can navigate the ActiveCircle prototype interface.
- Evaluate Feature Clarity: Determine whether the core features are intuitive and easy to use.
- **Measure Visual Appeal:** Understand user perception of the app's visual design and color schemes.
- Assess User Engagement Potential: Find out how likely users are to use the app for planning or joining activities.
- **Identify Areas of Improvement:** Collect open-ended feedback on pain points or confusing aspects.
- Gain Insights on Innovation: Learn which features stand out as most useful or novel to users.
- Validate App Purpose: Confirm whether the app motivates users to explore new activities and foster social connection.

## 6.2. Choice of user study and user sample:

**Method**: Online survey (using a short, structured questionnaire).

**Target Users**: Primarily young adults (age 18–40) who are interested in fitness, outdoor activities, and social connections. Some older adults (40+) were also included if they regularly engage in group fitness or outdoor activities.

Sample Size: 5 total participants completed the survey.

### 6.3. Draft of the User Study Survey or Interview

1. How easy was it to navigate through the ActiveCircle prototype?

```
(1 - \text{Very difficult}, 5 - \text{Very easy})
```

2. Were the app's features easy to understand and use?

```
(Yes/Somewhat/No)
```

3. Did you encounter any confusion or difficulty completing a task?

```
(Yes/No)
```

4. If the answer is yes to confusion/difficulty, please describe.

```
(Open-ended text box)
```

5. How appealing was the visual design of the app?

```
(1 - Not appealing, 5 - Very appealing)
```

6. Was the layout and color scheme pleasing to you?

```
(Yes/No/Neutral)
```

7. Were text and buttons clearly readable and accessible?

```
(Yes/Somewhat/No)
```

8. How likely are you to use this app to plan or join real-life activities?

```
(1 - \text{Not likely}, 5 - \text{Very likely})
```

9. Which feature(s) did you find most useful or interesting?

```
(Open-ended text box)
```

10. Did the app encourage you to try new activities or connect with others?

```
(Yes/Somewhat/No)
```

11. Overall, how satisfied are you with the app experience?

```
(1 – Very dissatisfied, 5 – Very satisfied)
```

12. What did you like most about the app?

```
(Open-ended text box)
```

13. What areas do you think need improvement?

```
(Open-ended text box)
```

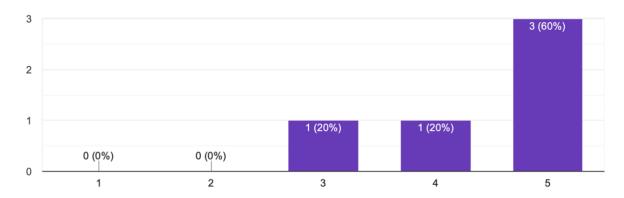
14. Do you have any additional comments or suggestions?

```
(Open-ended text box)
```

## **6.4.Data Visualization and Analysis:**

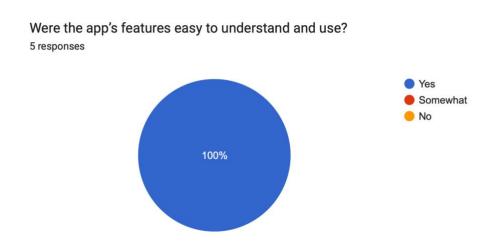
From **5 participants**, we highlight a few summarized findings:

How easy was it to navigate through ActiveCircle prototype? 5 responses



## Interpretation

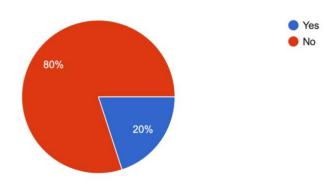
Most users rated navigation highly, with three participants giving it a perfect 5. This indicates that users generally find the app intuitive and easy to explore. The design likely follows a clear structure, allowing users to understand where to go without confusion.



#### Interpretation

This is a strong indicator that the app's features are clearly labeled and logically placed. Users did not require external instructions or guesswork, meaning the prototype passes the usability threshold for feature discoverability.

Did you encounter any confusion or difficulty completing a task? 5 responses



#### If the answer is yes to the above, please descibe

2 responses

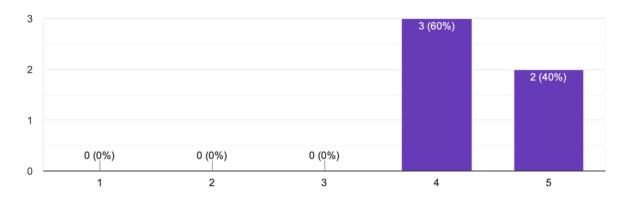
It is user-friendly

I have no idea why the first page is Event, and need a call to login. And the other bottom buttons are not working.

#### Interpretation

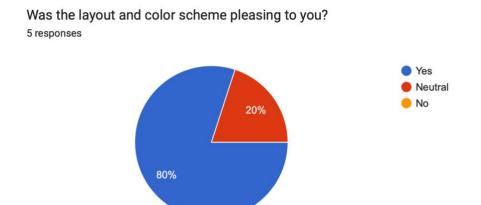
One user said the app is user-friendly, while another had some confusion about the first page showing "Event" by default, needing a login, and some buttons not working. These are small issues that can be fixed by improving the landing page and button functionality.

How appealing was the visual design of the app? 5 responses



#### Interpretation

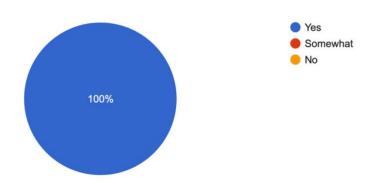
The visual appeal of the app received high marks. This suggests that the color schemes, layout consistency, icons, and overall UI design are attractive and modern enough to engage the target users.



## Interpretation

A largely positive response. The single "Neutral" may point to either personal preference or an element of the design that didn't resonate as strongly. However, the majority clearly approve of the layout and color palette.

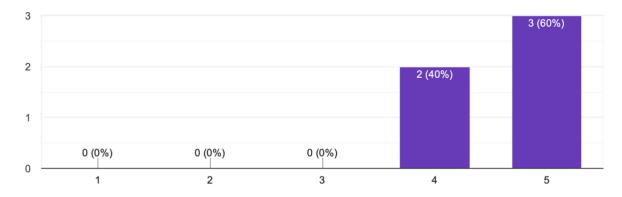
Were text and buttons clearly readable and accessible? 5 responses



## Interpretation

This confirms that the app uses appropriate font sizes, button shapes, contrast, and spacing, key components of accessibility. It likely performs well even for users with different levels of vision or experience.

How likely are you to use this app to plan or join real-life activities? 5 responses



## Interpretation

Users show a strong willingness to use the app in real life. This confirms that the app is not only well designed but also relevant to their needs and lifestyle, particularly in activity planning and social engagement.

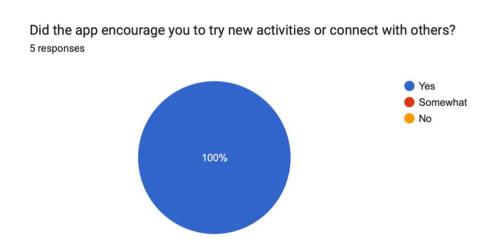
#### Which feature(s) did you find most useful or interesting?

5 responses

Video calling
Ability to chat with the fellow participants of the event
Buttons; easily. Accessible
Pick my favorite activities.
The home page is so clear of the catagories. I could easily pick which one I need. And create an event.

## Interpretation

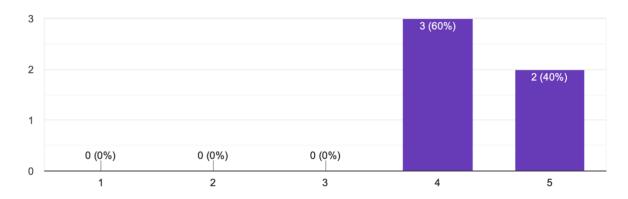
Users are appreciating both the customization features (e.g., activity preferences) and social interaction features (chat, video calls). The clarity of the homepage also stands out, indicating strong layout organization.



## Interpretation

This shows excellent alignment with the app's goal to promote social connection and community engagement. Users are feeling inspired to explore beyond their usual routines, which is a big win for behavior change.

# Overall, how satisfied are you with the app experience? 5 responses



#### Interpretation

High satisfaction levels confirm that most core expectations are met. It's a sign that the app delivers a well-rounded experience, good design, meaningful features, and smooth usability.

#### What did you like most about the app?

4 responses

User interface and user experience

It is easy to use and understand

Visual

The rating part for a done activity is easy to have a feedback for other users.

#### Interpretation

Users value simplicity, design clarity, and ease of interaction. Positive remarks on UI/UX and specific task features like rating show that the interaction design is resonating well with users.

#### What areas do you think need improvement?

5 responses

navigation

May be the Ratings screen needs a way to navigate back.

Everything seems so well

More details about the each event like details and also sharing images/videos to the chat.

after I done the rating, there is no button to go back

#### Interpretation

Suggestions indicate a need for better flow continuity (e.g., post-rating), and richer event content. These are minor tweaks but important for increasing overall user confidence and reducing drop-off.

#### Do you have any additional comments or suggestions?

1 response

N/A

## Interpretation

Most users did not provide extra comments, which may indicate overall satisfaction with the app experience and that their main thoughts were already captured in earlier questions. This implies that the core survey covered the necessary areas effectively.

## 6.5. Insights from the Results:

#### Strong Overall Satisfaction

Most users rated their overall experience highly, suggesting the prototype is already well-received and functional in its current form.

### • High Navigability and Usability

All users affirmed that features were easy to use, the app demonstrates an intuitive structure that supports smooth user journeys.

## • Highly Appealing Visual Design

The visual design was praised. Layout, colors, and interface consistency were highlighted positively.

#### • Encourages Social Interaction

All respondents indicated that the app encouraged them to try new activities or connect with others, confirming the app successfully fosters a sense of community and engagement.

#### • Text and Elements Are Accessible

100% of users found the text and buttons clearly readable and accessible, indicating strong design adherence to accessibility best practices.

#### • Most Valued Features

Users appreciated the ability to pick favorite activities, chat with participants, and video calling, highlighting social and personalization features as key strengths.

#### Minor Areas for Improvement

One user encountered confusion on the landing page. Feedback suggests a need to enhance navigation cues.

#### • Event Detail Requests

Users want more detailed event descriptions, which points to the importance of richer content and context when showcasing group activities.

#### • UI/UX is a Major Positive Factor

Open-ended responses frequently praised the user interface and experience, affirming that the visual and interaction design choices are resonating with the audience.

## 7. Changes to the design based on Prototype Evaluation

## 7.1. Changes needed in the prototype based on results analysis

#### • Revised the "Create Event" Button:

Based on feedback about navigation confusion, the placement and label of the "Create Event" button were improved to be more prominent and action oriented.

#### • Enhanced Event Detail Visibility:

Users requested richer information on events. We added more descriptive details about each event on both the main and user-specific event pages.

## • Included Event Descriptions:

To provide better context, a dedicated description field was added when creating events, helping users understand the purpose, type, and scope of each activity.

#### Added Media Options in Chat:

Social interaction was a strong highlight in feedback. To build on this, media sharing (e.g., images, attachments) was introduced in the chat to enrich communication between users.

#### • Improved Page-to-Page Navigation:

To address concerns about user flow (e.g., post-rating actions and landing screens), navigation links and feedback loops were clarified, creating a more seamless page transition experience.

#### • Expanded Create Activity Fields:

The activity creation form was updated to include more input fields (e.g., location, time, participation limits), giving users more control and personalization when organizing activities.

#### 7.2. Which of these changes were you able to make after this feedback?

We were able to make all the changes to our app based on the feedback

## 7.3. Major Changes that cannot be done in this iteration: -

Since we were able to make all the changes provided by the user, there is no specific major change that needs to be done in this iteration. However, we plan to add more features such as gamification through badges and real-time location sharing via maps in the future.

#### 8. Conclusion

ActiveCircle was developed with the goal of connecting outdoor enthusiasts through a user-friendly platform that supports event discovery, group interaction, and fitness motivation. Our process combined market research, structured user studies, and iterative Figma design to identify key user needs such as flexible event creation, reliable RSVP, and social features like group chats and profile personalization. The app's focus on community engagement and real-time coordination helps fill a clear gap left by existing fitness and event platforms.

Feedback from our prototype evaluation confirmed that users found the interface intuitive, visually appealing, and aligned with their needs. Enhancements such as richer event details, improved navigation, and media sharing were made based on this input. Overall, ActiveCircle offers a transformative experience by not only encouraging physical activity but also enabling social connection in a motivating environment.

#### We wish to acknowledge:

- **Instructor Priya**, for ongoing feedback and guidance on both how to create the survey form for requirements gathering and how to create personas and scenarios for the requirements generation throughout the process.
- **Survey Participants**, for giving us valuable insights into their motivations, constraints, and desired features.

#### 9. References

- 1. Strava <a href="https://www.strava.com">https://www.strava.com</a>
- 2. AllTrails https://www.alltrails.com
- 3. Duolingo https://www.duolingo.com
- 4. Meetup https://www.meetup.com
- 5. Figma docs https://help.figma.com/hc/en-us/categories/360002051613-Get-started

## 10. Work Date/Hours logs

## 10.1. Lakshantha Work Log table:-

Date	Number of Hours	Work Done
Jan 22, 2024	3	Brainstormed ideas for the mobile app. Researched feasibility of different concepts.
Jan 25, 2025	0.5	Met with Priya to discuss app ideas and helped adjust the concept based on feedback.
Feb 05, 2025	2	Set up GitHub repository and structured project files for team collaboration.
Feb 06, 2025	3	Worked on proposal content, ensuring completeness and clarity.
Feb 09, 2025	2	Finalized and submitted the project proposal after incorporating all team contributions.
Feb 10, 2025	2.5	Conducted research on user behavior and expectations for the app.
Feb 12, 2025	1.5	Assisted in drafting user study objectives and survey questions.
Feb 14, 2025	2	Reviewed survey structure for clarity and comprehensiveness.
Feb 17, 2025	3	Led discussions on refining the survey to align with user research goals.
Feb 19, 2025	2	Organized participant recruitment strategy for user study.
Feb 21, 2025	2.5	Coordinated team efforts in finalizing survey for user study outreach.
Feb 24, 2025	3	Managed user study data collection and monitored responses.
Feb 26, 2025	1.5	Began preliminary analysis of survey results.
Mar 01, 2025	2	Synthesized key insights from user study findings.
Mar 04, 2025	2	Started drafting personas and scenarios based on survey data.
Mar 06, 2025	2.5	Created the final persona/Scenario for Kate.
Mar 08, 2025	2	Drafted initial requirements based on personas and scenarios, identifying features that align with user needs.

Mar 11, 2025	2.5	Conducted an internal review session to
		validate the drafted requirements, ensuring
		consistency with user expectations.
Mar 15, 2025	2.5	Collaborated with the team to finalize
		requirement priorities and addressed
		feedback for refining high-priority features.
Mar 16, 2025	2	Conducted a final review of the
		requirements document for clarity and
		logical flow, ensuring readiness for
		submission.
Mar 18 2025	3	Assisted in creating a wireframe design for
		the entire application
Mar 19 2025	2	Discuss about the feasibility of the
		proposed wireframe designs before
		implementing on Figma
Mar 21 2025	3	Learn Figma and start designing screens
Mar 22 2025	3	Finish designing 2 prototype screens on
		Figma
Mar 23 2025	1.5	Create progress report 2 and submit on
		GitHub and Blackboard
Mar 31 2025	3	Finish designing 2 prototype screens on
		Figma
April 1 2025	3	Start working on final report
April 2 2025	2.5	Assisted in creating user survey and send
		out for responses
April 4 2025	3	Finalize Figma prototype and review the
		entire workflow
April 8 2025	2.5	Finalize final report together with the team,
		push to GitHub and submit on Blackboard.
		*

## 10.2. Pravesh Work Log Table:

Date	Number of Hours	Work Done
Jan 22, 2024	3	Brainstorm ideas for the mobile app. Initial discussions focused on identifying unique features and potential user needs.
Jan 25, 2025	0.5	Meet with Priya to share the app ideas and get feedback. Adjusted the concept based on her suggestions to improve feasibility.
Feb 05, 2025	2	Work on project proposal. Organized our ideas into a structured format and began drafting the proposal document.
Feb 06, 2025	3	Finalize the project proposal. Revised content for clarity and ensured all required sections were included.
Feb 07, 2025	2	Format and update the proposal for submission. Focused on document consistency, grammar, and structure.
Feb 10, 2025	2.5	Initial research on market competitors and inspiration apps. Compared ActiveCircle with existing solutions to identify gaps.
Feb 12, 2025	1.5	Brainstormed UI/UX ideas and explored design inspirations. Researched industry best practices to enhance usability.
Feb 14, 2025	2	Conducted detailed research on user expectations and requirements. Analyzed competitor app reviews to find pain points.
Feb 17, 2025	3	Drafted objectives for the user study to understand user behaviors and needs.  Focused on gathering relevant qualitative insights.
Feb 19, 2025	2	Prepared an initial survey draft for user study and reviewed its effectiveness.  Refined survey questions for better data collection.
Feb 21, 2025	2.5	Refined the user study approach based on feedback from team discussions. Ensured survey clarity and ease of participation.
Feb 24, 2025	3	Finalized the user study survey and started outreach for participants. Coordinated participant recruitment efforts.

Feb 26, 2025	1.5	Analyzed initial responses from user study
1 33 23, 232	1.0	participants. Identified key trends and early
		user feedback.
Mar 01, 2025	2	Compiled key insights from user research
,		and discussed findings with the team.
		Began drafting personas based on findings.
Mar 04, 2025	2	Started drafting personas and scenarios
· ·		based on user study results. Defined user
		goals and potential interaction patterns.
Mar 06, 2025	3	Created the final persona/Scenario for
· ·		Carlos.
75 00 2025	4.5	
Mar 08, 2025	1.5	Meet up to have a look at the created
		Persona/Scenarios and collaborate on
		requirement generation, analyzing team
		personas/scenarios to create requirements.
Mar 11, 2025	2	Assisted in combining insights from
		requirements gathering and generation into a prioritized list.
Mar 15, 2025	3	•
13, 2025	3	Reviewed the requirements document draft
		and suggested refinements.
Mar 16 2025	2	Worked on final formatting and structuring
		of the requirements document.
Mar 18 2025	3	Conducted additional feature research for
		enhancing prototype functionality and
		assisted in creating some mock wireframe
75 10 2027		design.
Mar 19 2025	2	Assisted in refining FIGMA prototype
		based on the finalized requirements.
Mar 21 2025	3	Integrated survey feedback into FIGMA
		prototype adjustments and validated new
		UI designs.
Mar 22 2025	3	Designed few prototype screens and
		created the progress report 2.
Mar 23 2025	1.5	Finalize the progress report document and
		formatting for the submission.
Mar 31 2025	3	Finish designing 2 prototype screens on
		Figma
April 1 2025	3	Start working on final report
•		

April 2 2025	2.5	Assisted in creating user survey and send out for responses.
April 4 2025	3	Finalize Figma prototype and review the entire workflow
April 8 2025	2.5	Finalize final report together with the team

## 10.3. Rahul Work Logs table: -

Date	Number of Hours	Work Done
Jan 22, 2024	3	Brainstorm ideas for the mobile app.
Jan 25, 2025	0.5	Meet with Priya to share the app ideas and get feedback.
Feb 05, 2025	2	Contributed to project proposal draft with a focus on background research and competitive analysis.
Feb 06, 2025	3	Reviewed and refined proposal sections to ensure alignment with project objectives.
Feb 07, 2025	2	Formatted and finalized project proposal for submission.
Feb 10, 2025	2.5	Conducted competitive analysis and documented key differentiating features.
Feb 12, 2025	1.5	Collaborated on drafting survey questions for user research.
Feb 14, 2025	2	Reviewed survey structure for clarity and comprehensiveness.
Feb 17, 2025	3	Assisted in defining metrics for analyzing user study responses.
Feb 19, 2025	2	Managed participant feedback collection during user study.

Feb 21, 2025	2.5	Started organizing user study responses into meaningful data sets.
Feb 24, 2025	3	Conducted deeper analysis on survey trends and findings.
Feb 26, 2025	1.5	Refined key insights for persona development.
Mar 01, 2025	2	Contributed to drafting detailed personas and their behavior patterns.
Mar 04, 2025	2	Started defining user scenarios based on survey responses.
Mar 06, 2025	3	Participated in team discussions about preliminary survey results.
March 08, 2025	1.5	Developed initial drafts of user personas based on survey analysis.
March 11, 2025	2	Created and refined user scenarios/stories for requirement generation.
March 15, 2025	3	Collaborated on combining insights into final prioritized requirement list.
March 16, 2025	2	Assisted in final document formatting
March 18, 2025	3	Perform research on to implement prototype functionality and contributed to mock wireframe designs.
March 19, 2025	2	Research on similar templates for Figma designs-based requirements.
March 21, 2025	3	Start UI screen designing in Figma.
Mar 22 2025	3	Design and define Splash, Login/Signup screens prototype in Figma.

Mar 23 2025	2	Update the progress report 2 – documentation and formatting for submission.
Mar 31 2025	3	Finish designing 2 prototype screens on Figma
April 1 2025	3	Start working on final report
April 2 2025	2.5	Assisted in creating user survey and send out for responses
April 4 2025	3	Finalize Figma prototype and review the entire workflow
April 8 2025	2.5	Finalize final report together with the team