Software Requirements Specification

for

CampusKonnect

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Introduction

1.1 Purpose

This document serves the purpose of outlining the detailed software requirements for an event management application that is intended for Android devices, with a specific focus on catering to the needs of college campuses. The application shall be designed to facilitate efficient and streamlined event management by providing comprehensive functionality to its users through an intuitive user interface.

1.2 Intended Audience

Students- The primary target audience for the event management application shall be students, as they would utilize the application to explore and register for events occurring on their respective college campuses.

Event organizers- Another crucial audience for the event management application shall be event organizers, who would utilize the application to create, manage, and promote events on their respective college campuses.

Faculty and staff - Faculty and staff members shall also be considered as potential audiences for the event management application, as they may organize events on campus or desire to participate in events as attendees.

College administrators - College administrators shall also be regarded as a potential audience for the event management application, as they may wish to monitor event participation and engagement on campus.

1.3 Product Scope

The application shall provide a comprehensive platform for managing events on college campuses, with a primary focus on facilitating event discovery, registration, and management for students, faculty, and staff members. The application shall enable event organizers to create, promote, and manage events with ease, while also offering communication tools to facilitate efficient engagement with attendees. Additionally, the application shall provide administrators with the ability to monitor and analyze event participation and engagement, ensuring compliance with college policies and guidelines.

Overall Description

1.4 Product Perspective

The application will be a standalone Android application that will interface with a server-side API. The application will be designed for use by college event organizers and students, with features designed to simplify the event management process.

1.5 Product Features

Event creation and management shall be a primary feature of the application, providing event organizers with the ability to create and manage events through the application. The application shall offer a user-friendly interface that allows organizers to provide details such as event description, time, location, and event duration. Organizers shall also be able to manage event registrations and track attendance, enabling them to make informed decisions regarding event logistics.

Event promotion shall be another key feature of the college event management application, with events being promoted through the application to make it easier for students, faculty, and staff members to discover and attend events.

Overall, the application shall offer a comprehensive platform for event creation, promotion, and communication, catering to the needs of all stakeholders involved in the event management process. The application shall promote efficient event management and encourage greater engagement with campus events, thereby contributing to the overall vibrancy and success of college communities.

1.6 User Classes and Characteristics

The application shall be designed to cater to two primary user classes: event organizers and students. Event organizers shall have administrative access to create and manage events through the application, providing details such as time, location, and event description, and track attendance.

On the other hand, students shall have read-only access to the application, allowing them to browse and sign up for events. The application shall provide an intuitive interface that allows students to view event details, such as date, time, location, and event description. Students shall also be able to register for events and receive notifications regarding event updates and changes.

To ensure data privacy and security, the application shall require users to register and log in with their credentials. Students shall have access to a personalized profile that displays their registered events and event history.

The application shall be designed to offer a seamless user experience, catering to the unique needs of both event organizers and students. The application shall promote efficient event management and attendance tracking while encouraging greater participation in campus events.

1.7 Operating Environment

The application shall be specifically designed to run on Android devices with a minimum operating system version of Android 5.0 (Lollipop) or later. The application shall be optimized for use on a variety of Android devices, including smartphones and tablets.

To ensure seamless communication with the server-side API, the application shall require an internet connection. This will enable users to access real-time information and receive timely notifications regarding event updates and changes.

The application shall be designed to support offline use to a certain extent, allowing users to access previously viewed event information and make changes to event registrations while offline. However, full application functionality shall require an active internet connection.

External Interface Requirements

1.8 User Interfaces

Home Screen: The home screen is the first screen that users see when they open the app. It should provide a clear overview of upcoming events, including their date, time, and location. Users can scroll through the list of events, and the events' details should be easily accessible with a simple tap.

Event Detail Screen: When users tap on an event, they should be directed to the event detail screen. This screen should display all the essential information about the event, such as the event's name, date, time, location, and registration deadline. Additionally, the screen should provide a brief description of the event and include a call-to-action button that enables users to register for the event.

Registration Screen: The registration screen should allow users to register for an event quickly and easily. The screen should collect users' names, email addresses, roll number and any other required information. Additionally, the screen should include a confirmation message or email that users receive after successfully registering for an event.

Profile Screen: The profile screen is where users can view and manage their profile information, such as their name, email address, roll number and other personal details. Users can edit their information and view a list of events they have registered for.

Notification Screen: The notification screen should display all the notifications that users receive regarding upcoming events or updates to events they have registered for. Notifications should be easily accessible, and users should be able to turn on or off notifications from the app's settings.

Admin Dashboard: The admin dashboard is where the app's admin users can create and manage events. The dashboard should provide a simple and intuitive interface that enables admin users to add new events, edit existing events, and manage registrations for each event.

Settings Screen: The settings screen should allow users to customize the app's appearance and functionality. Users can adjust notification settings, and turn on or off other features.

1.9 Software Interfaces

Database: The app needs to interact with a database to store event information, user profiles, and registration data.

Operating System: The app will run on Android. The app may use specific operating system features, such as notifications and permissions, to provide a better user experience.

Development Tools: The app will be developed using Android Studio. Additionally, the app will use libraries and frameworks of Flutter, to simplify development and improve the app's performance and make it multi-platform.

Integrated Commercial Components: The app will use third-party components, such as mapping services, to provide additional functionality. For example, the app will use Google Maps for event location information.

Application Programming Interfaces (APIs): The app will need to communicate with other APIs to provide additional functionality.

System Features

1.10 User Registration

Users have the ability to create an account, edit their profile information, view events, and register for events they are interested in attending.

To create an account, users must provide their name, email address and password. Once their account is created, they can edit their profile information, including their name, email address, phone number, and profile picture. These details are used to personalize the user experience and provide relevant event recommendations.

Users can view a list of events and filter them by various criteria, such as location, date, category, or keyword. They can also see event details, such as the event name, date, time, location, description, and registration deadline.

1.11 Event Creation

Organizers have the ability to create, edit, and manage events. To create a new event, admin users can provide the event name, date, time, location, registration deadline, and event description. These details are used to generate an event page that can be viewed by users who are interested in attending.

Once an event is created, admin users can edit the event details if necessary. For example, they can change the date or time, update the event description, or extend the registration deadline. If an event needs to be canceled, admin users can also delete it from the platform.

1.12 Bookmark Event

Users have the ability to save or "bookmark" events that they are interested in. This feature allows users to easily access and keep track of the events they want to attend without having to search for them again later.

1.13 User Roles and Permissions

Administrative users are granted additional permissions within the application, enabling them to create and manage events. These permissions are necessary to effectively manage the application's operations and ensure optimal user experience.

In contrast, Regular users can register for events. This ensures that regular users can participate in events and provide valuable feedback to improve the overall user experience.

1.14 Data Management

The application implements a database management system to effectively store and manage user and event information in a secure and reliable manner.

To ensure the security and integrity of the data, the application employs a range of techniques and technologies, including but not limited to encryption, access controls, authentication, authorization, and auditing. These measures are designed to prevent unauthorized access, detect any potential security breaches, and enable quick response and recovery in case of any security incidents.

Other Nonfunctional Requirements

1.15 Performance Requirement

Response Time: The event management app must be able to load event details and attendee information quickly and efficiently. The application should have a response time of under 2 seconds for 90% of all user requests.

Availability: The app should be highly available and accessible to users at all times. It should have an uptime of at least 99.9% over a rolling 30-day period.

Error Rates: The app should have a low error rate, with less than 1% of all user requests resulting in errors.

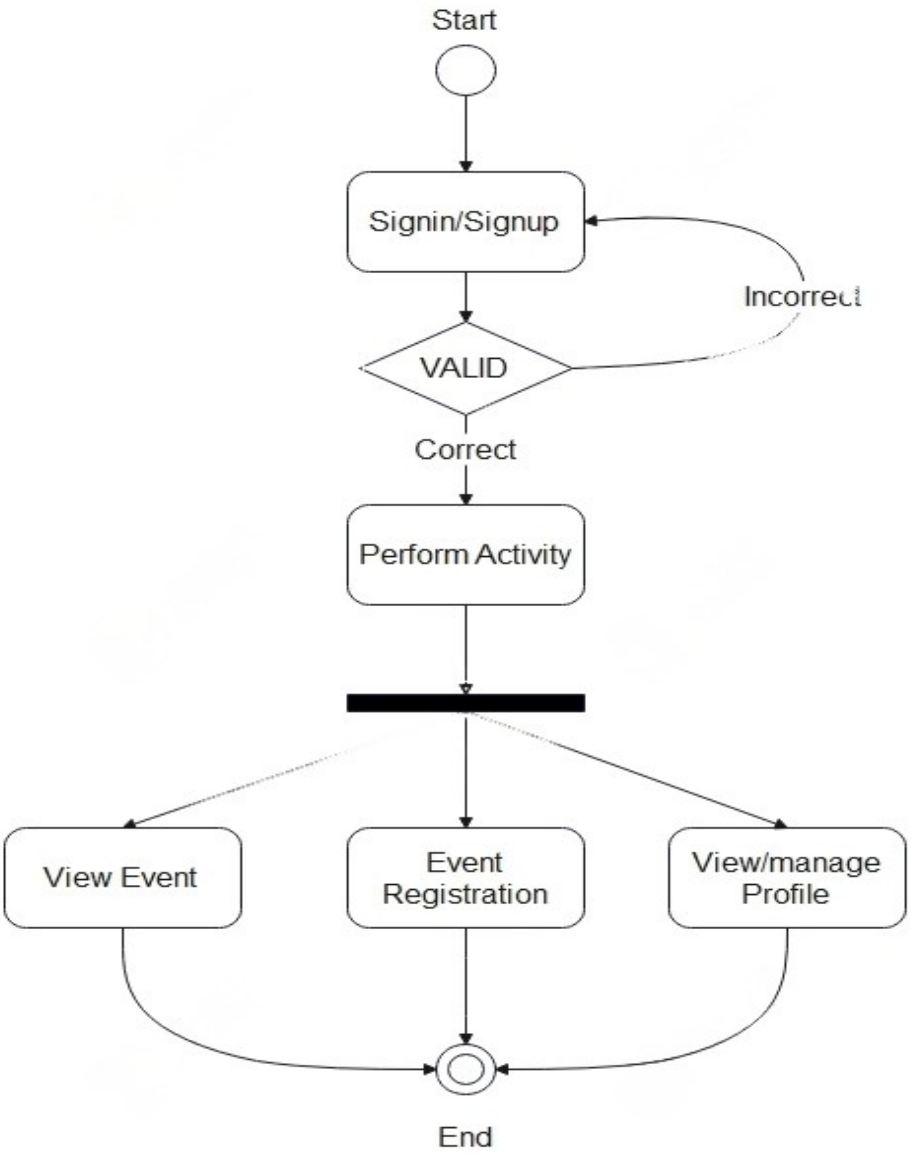
1.16 Security Requirements

Authentication and Authorization: The app must use secure authentication and authorization mechanisms to ensure that only authorized users can access the system and the event details.

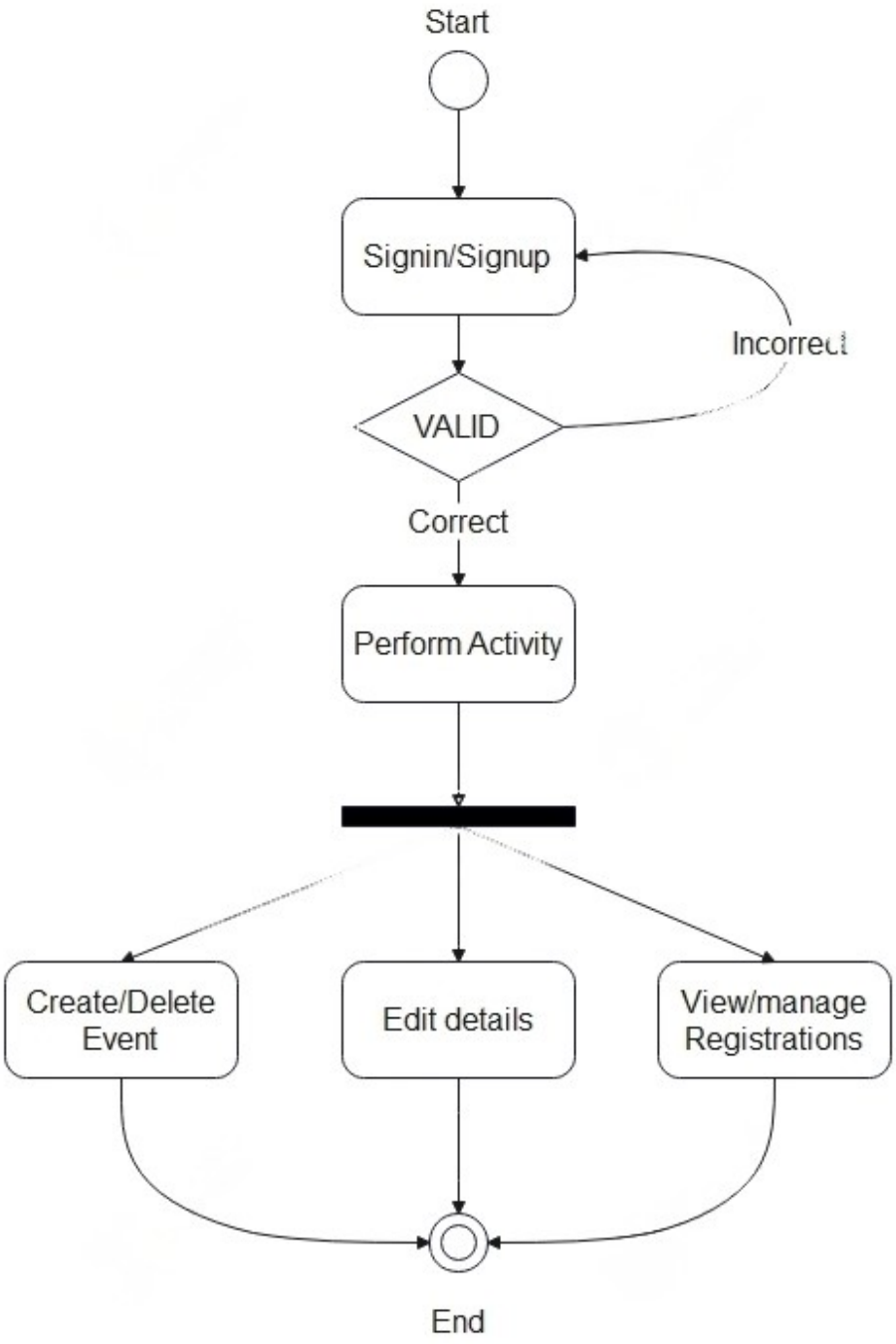
Access Controls: The app must provide role-based access controls to ensure that only authorized personnel can access and manage event information. Access controls should be implemented for different user roles such as administrators, event organizers, and attendees.

Other Requirements

1.17 Appendix A: Analysis Models and Screenshots



ACTIVITY DIAGRAM FOR USERS



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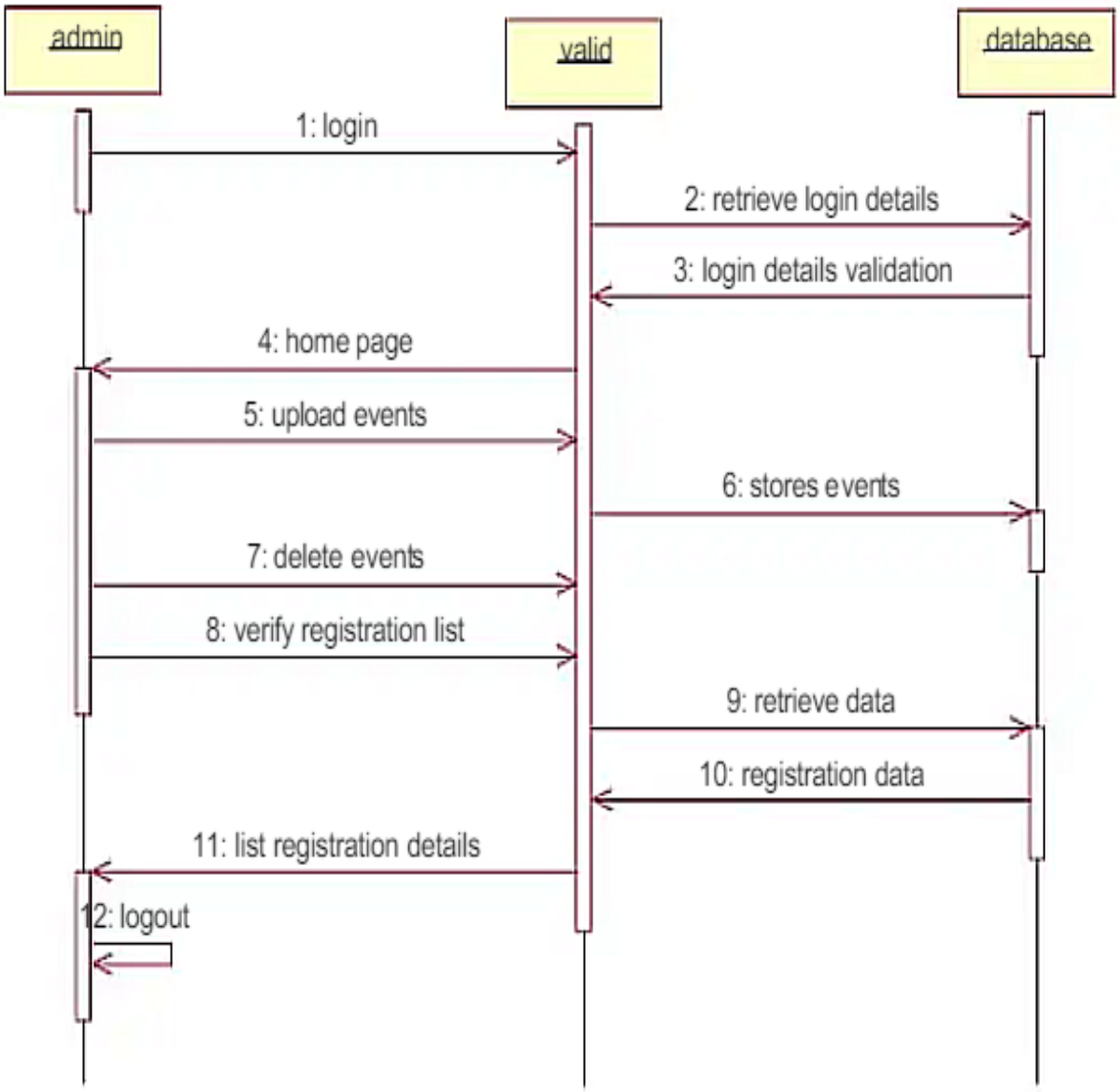
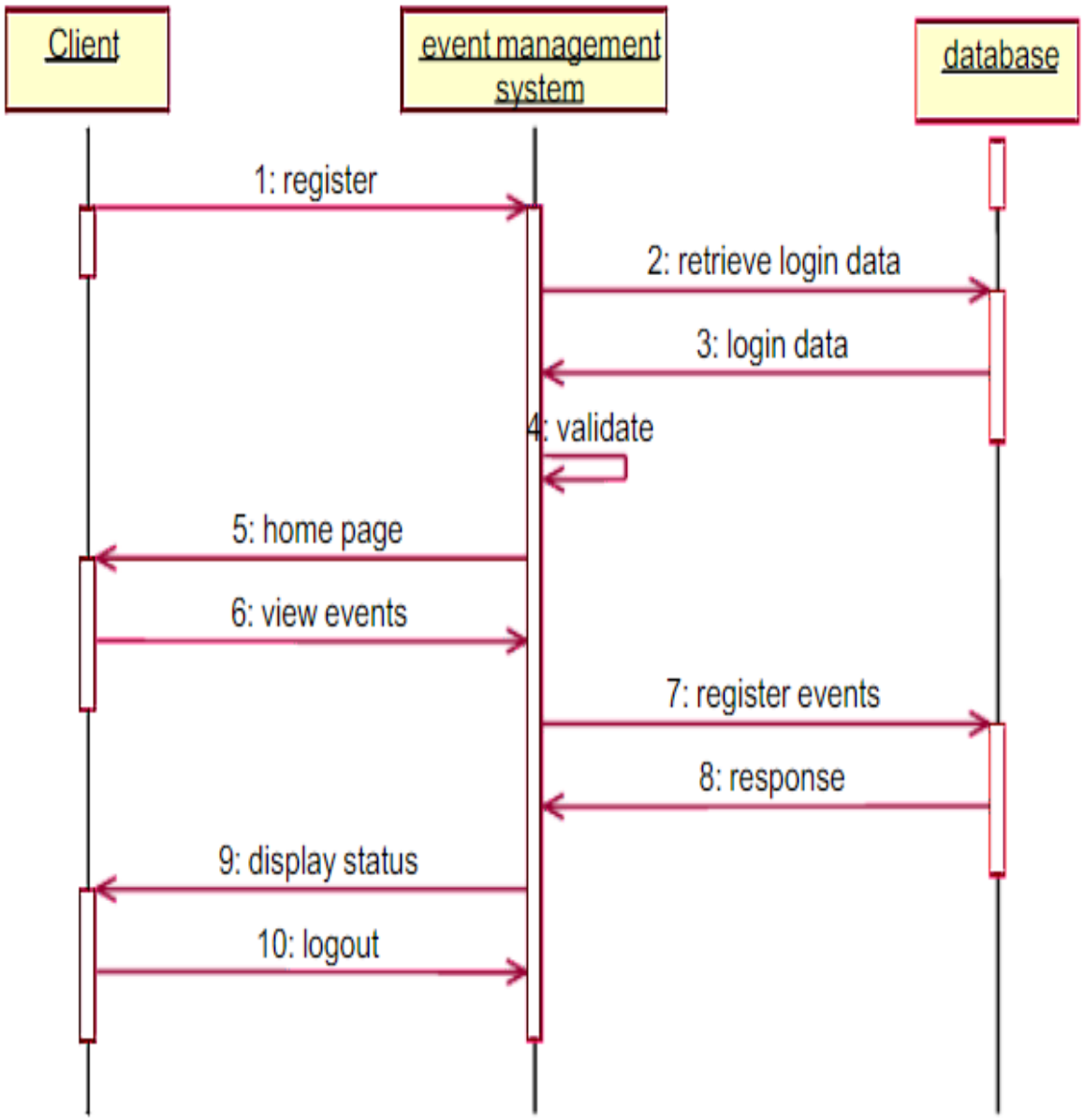
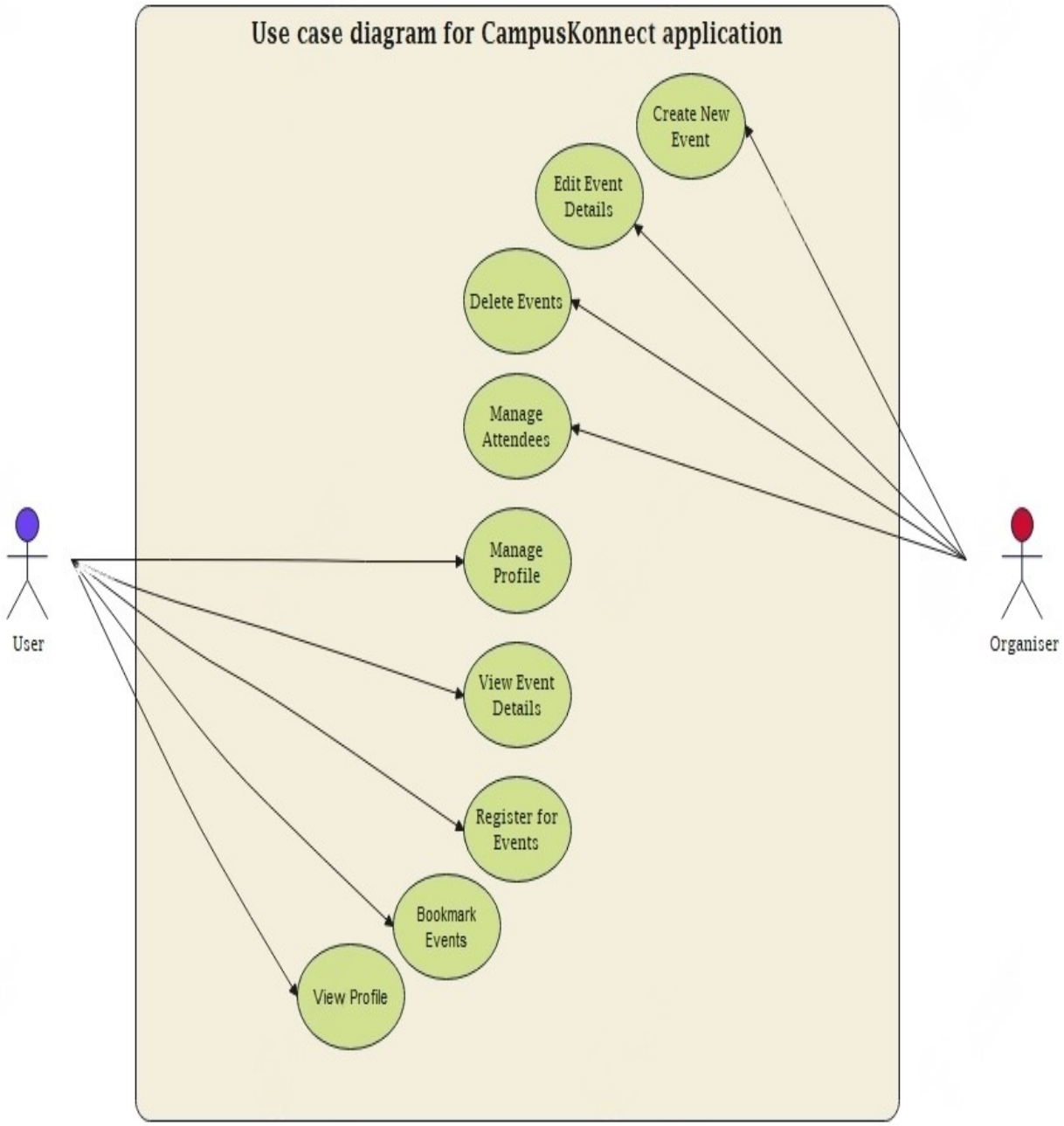


SEQUENCE DIAGRAM FOR ADMIN



SEQUENCE DIAGRAM FOR USER


Use case diagram for CampusKonnect application
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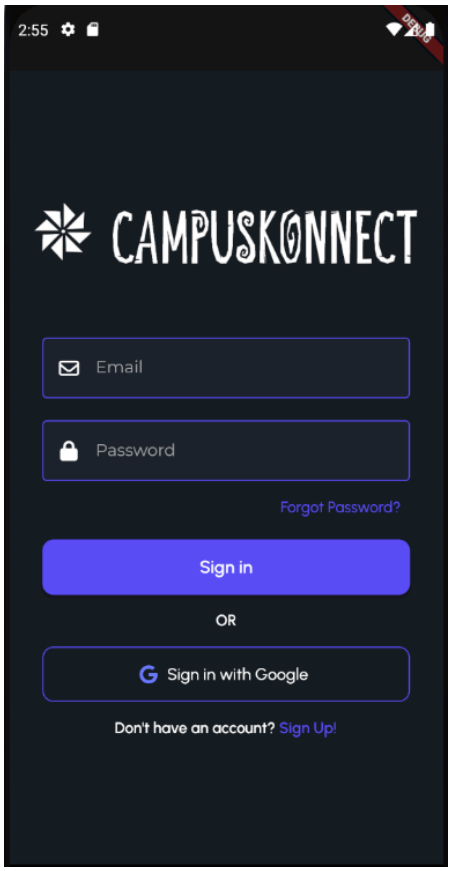
Edit Event Details
Delete Events
Manage Attendees
Manage Profile
View Event Details
Register for Events
Bookmark Events
View Profile
User
Organiser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Sign in
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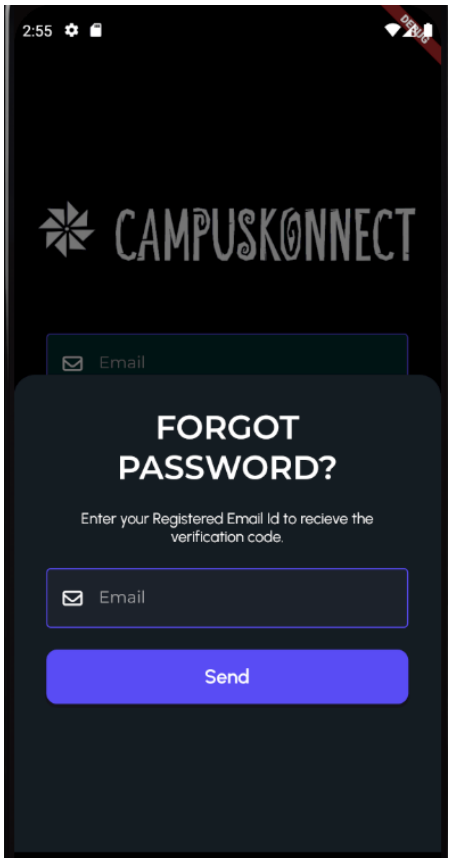
Sign in with Google
Don't have an account? Sign Up!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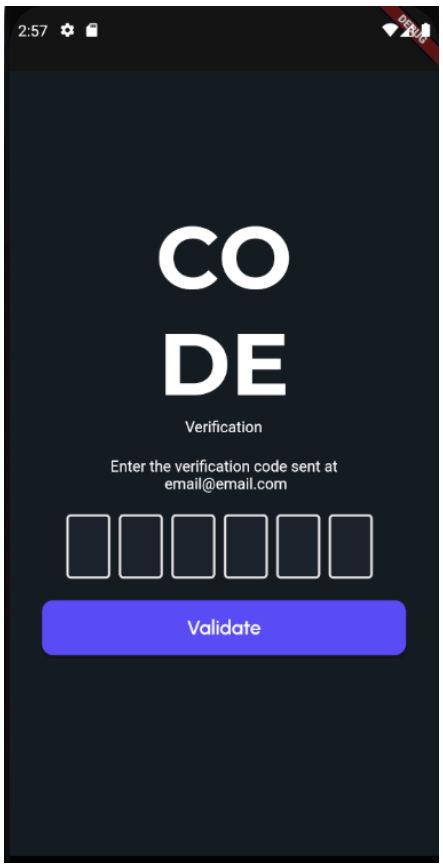
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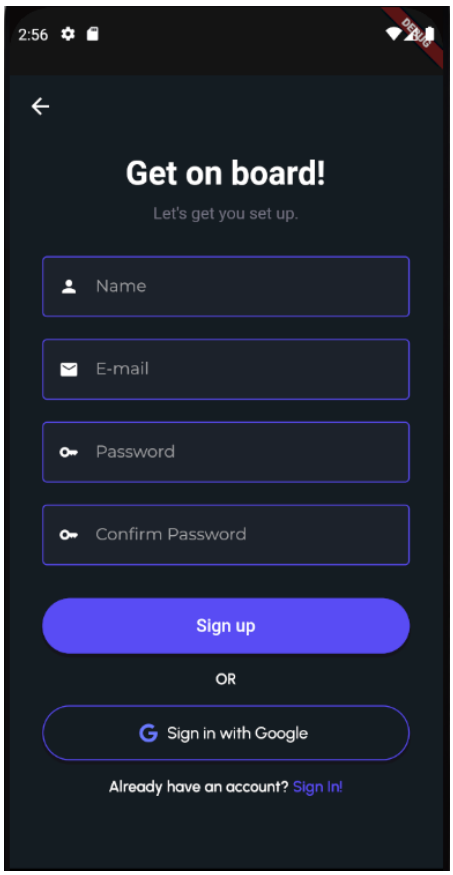
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Get on board!
Let's get you set up.
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Confirm Password
Sign up
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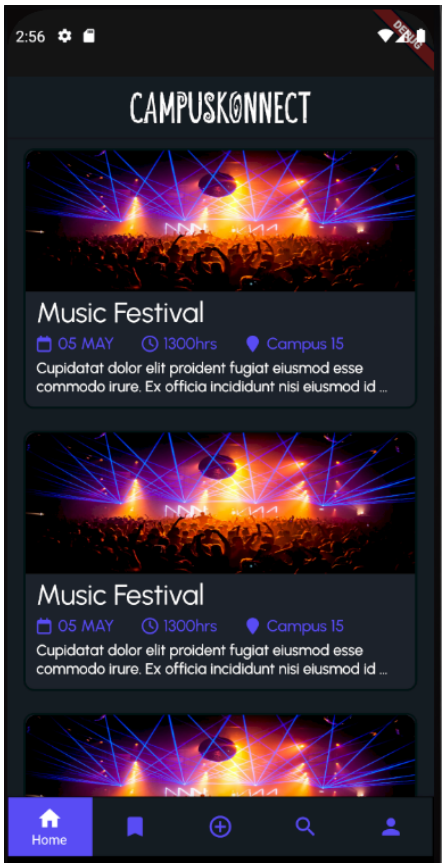
Sign in with Google
Already have an account? Sign In!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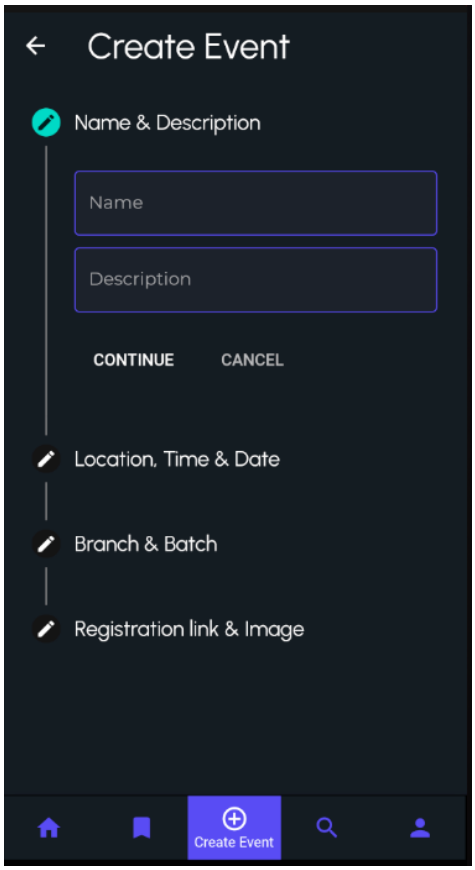
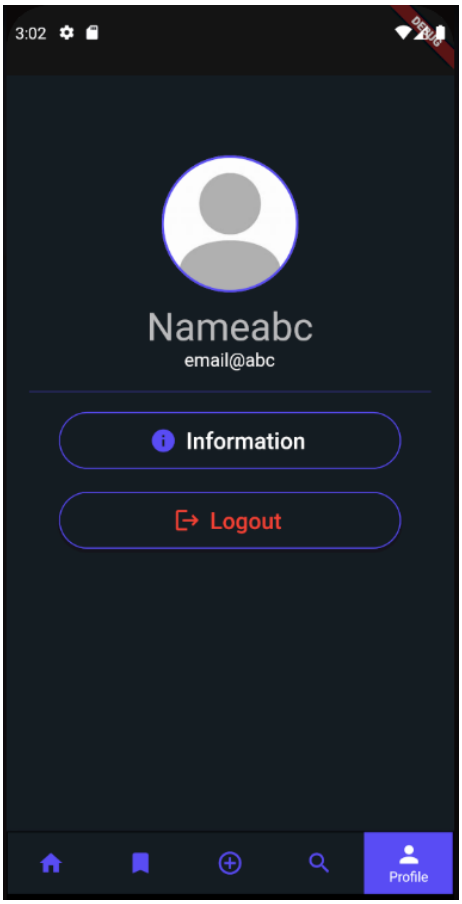

Create Event
Name & Description
Name
Description
CONTINUE
CANCEL
Location, Time & Date
Branch & Batch
Registration link & Image
Create Event

Enter the event you looking for
Search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