CollegeConnect Documentation

An Android App for College Event Management

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1. Overview

CollegeConnect is an Android application designed to streamline college event management. It connects students and administrators through a seamless platform where admins can publish announcements, and students can register for and attend events. The app features a user-friendly, card-based UI, Firebase integration for real-time data, and role-based access for students and admins.

2. Features

✓ **Student Features**

- View Announcements: Browse college announcements with details like title, category, date, and location.

- Event Registration: Register for upcoming events.

- Event Attendance: Mark attendance for events.

- Profile Management: View and edit profile (name, email, interest).

- Feedback: Provide feedback on the app.

- Logout: Securely sign out.

✓ **Admin Features**

- Create Announcements: Post announcements with details (category, dates, location, priority).

- Manage Announcements: Edit or delete existing announcements.

- View Stats: Monitor total announcements, active students, today's posts, and engagement rate.

- Profile Management: View and edit admin profile (name, email, college name).

- Logout: Securely sign out.

3. <u>Architecture</u>

✓ **Frontend**

- Language: Java

- Layouts: XML with Material Design components

- Key Activities:

    o LoginActivity: User authentication.

    o SignUpActivity: User registration.

    o AnnouncementsActivity: Displays announcements.

    o StudentDashboardActivity: Student hub (profile, events, feedback).

    o StudentProfileActivity: Student profile management.

    o AdminDashboardActivity: Admin hub (announcements, stats).

    o AdminProfileActivity: Admin profile management.

✓ **Backend**

- Database: Firebase Realtime Database

- Authentication: Firebase Authentication (email/password)

- Libraries:

    o Picasso: For loading profile images.

    o Material Components: For UI elements (cards, buttons, text fields).

✓ **Firebase Structure**

The app uses Firebase Realtime Database with the following structure:

```
{
    "users": {
        "{uid}": {
            "role": "Student/Admin",
            "name": "Shubham Kumar",
            "email": "shubham@example.com",
            "collegeName": "IIT Delhi",
            "interest": "Sports" (for students),
            "profileImageUrl": "https://example.com/image.jpg" (
                optional)
        }
    },
    "announcements": {
        "{announcement_id}": {
            "title": "Football Match",
            "category": "Science",
            "collegeName": "IIT Delhi",
            "details": "Annual sports fest",
            "startDate": "2025-06-10",
            "endDateTime": "2025-06-11 17:00:00",
            "location": "Main Ground",
            "priority": "1",
            "createdBy": "{admin_uid}"
        }
    }
}
```

4. UI Design

The app follows a consistent card-based design:

- **Background**: @drawable/gradient_background for main layouts.

- **Cards**: #EFEFEF background, cardCornerRadius="16dp", cardElevation="6dp".

- **Profile Header**: @color/primary_gradient_start background, white text (#FFFFFF, #FFFFFF80).

- **Text Colors:** #121111 (titles), #403E3E (subtitles), #757575 (secondary text), #673AB7 (accents).

- **Drawables**: ic_profile_placeholder, ic_edit, ic_logout, ic_arrow_forward, university, stat_item_background.

5. Setup Instructions

✓ **Prerequisites**

- Android Studio (latest version)

- Firebase project with Realtime Database and Authentication enabled

- Git

✓ **Steps**

1. Clone the Repository:

git clone https://github.com/Ishuxify/CollegeConnect

Open in Android Studio: Import the project into Android Studio.

2. Add Firebase Configuration:

   o Download google-services.json from your Firebase project.

   o Place it in the app/ directory.

3. Add Dependencies: Ensure build.gradle includes:

implementation 'com.google.firebase:firebase-auth:23.0.0'
implementation 'com.google.firebase:firebase-database:21.0.0'
implementation 'com.squareup.picasso:picasso:2.8' implementation
'com.google.android.material:material:1.12.0'

4. Sync and Build: Sync the project with Gradle and build the app.

5. Run: Deploy the app on an emulator or device (API 21+).

OR

-→ Install the APK File of the College Connect App from the Github Repository

Conclusion

CollegeConnect provides an efficient solution for college event management, with role-based features for students and admins. Its clean UI, real-time Firebase integration, and modular architecture make it a scalable platform for educational institutions. For further details, refer to the GitHub repository or contact the **IGNOUDuomates** team.