 Marwadi University Marwadi Chandarana Group	Marwadi University Faculty of Engineering & Technology Department of Information and Communication Technology	
Subject: CP (01CT0715)	Aim: Documentation and Reporting	
	Date:	Enrollment No: 92200133036

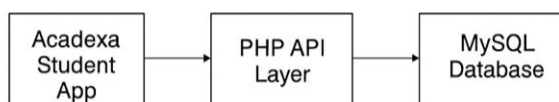
1.1 Introduction

The Acadexa Student App is a mobile application designed to provide students with a unified platform for managing their academic activities. It is the student-facing extension of the Acadexa web system, which is managed by administrators. The app integrates multiple features such as attendance tracking, fee records, assignment submission, exams, chat functionality, study material access, and faculty details. The project was implemented using **Flutter** for the mobile front-end, **PHP** for the backend API layer, and **MySQL** for the database. This combination was chosen for its cross-platform compatibility, cost-effectiveness, and ease of integration.

1.2 System Design

The system follows a **three-tier architecture**:

1. **Presentation Layer (Flutter App):** Provides the user interface for students.
2. **Application Layer (PHP APIs):** Handles requests, processes logic, and communicates with the database.
3. **Data Layer (MySQL Database):** Stores structured academic data such as student profiles, attendance, fees, assignments, and chat logs.




1.3 Implementation Highlights

- **Authentication:** Secure login system with token-based validation.
- **Attendance & Fees:** Real-time retrieval of records from the database.
- **Assignments & Exams:** Students can upload assignments and attempt exams directly in the app.
- **Chat Module:** Batch-based group chat for academic discussions.
- **Study Material:** Students can view and download uploaded resources.
- **Faculty Profiles:** Provides details of faculty members for transparency.

1.4 Key Outcomes

- A **mobile-first solution** that improves accessibility for students.
- **Centralized academic management** in one app, reducing reliance on multiple tools.
- **Improved communication** between students and faculty through integrated chat.
- **Scalable design** that can be extended to more institutions in the future.

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2. User Manual

2.1 Getting Started

1. **Install the App:** Download the APK from the provided GitHub repository.
2. **Launch the App:** Open the Acadexa Student App from your device's app menu.
3. **Login:** Enter your registered email and password, then tap **Log In**.

2.2 Navigation Guide


- **Home:** Displays daily schedule and announcements.
- **Attendance:** View attendance records for each subject.
- **Fees:** Check fee payment history and outstanding dues.
- **Assignments:** Submit assignments and view deadlines.
- **Exams:** Attempt online exams when scheduled.
- **Chat:** Communicate with batchmates in a dedicated group.
- **Study Material:** Access uploaded notes, PDFs, and resources.
- **Faculty:** View faculty details and contact information.

2.3 Submitting an Assignment

1. Tap **Assignments**.
2. Select the assignment from the list.
3. Upload the required file (PDF/Doc).
4. Tap **Submit** and wait for confirmation.

2.4 Troubleshooting

- **Login Issues:** Ensure correct email and password. If the issue persists, contact the admin.
- **Assignment Upload Fails:** Check file size (must be under 10 MB).
- **App Crashes:** Restart the app; if unresolved, reinstall from the APK.
- **Chat Not Updating:** Refresh the chat screen or check internet connectivity.

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3. Code Documentation

3.1 Codebase Structure

Flutter (Front-end):

lib/

- └── Pages/ # UI screens (Login, Dashboard, Attendance, Chat)
- └── services/ # API handlers (login_service.dart, assignment_service.dart)
- └── main.dart # App entry point

PHP (Backend):

api/

- └── login.php
- └── get_overall_attendance.php
- └── get_batch.php
- └── get_exams.php

config/

- └── db.php # Database connection

MySQL (Database):

- **students** (id, name, email, batch, password)
- **attendance** (student_id, subject, date, status)
- **fees** (student_id, amount, status, due_date)
- **assignments** (id, student_id, file_path, submission_date)
- **faculty** (id, name, subject, contact)

3.2 Key Modules and Functions

- **Login API (login.php):** Validates credentials and returns authentication token.
- **Attendance API (get_overall_attendance.php):** Fetches attendance records by student ID.
- **Batch API (get_batch.php):** Fetches batch details of the students.
- **Exam API (get_exams.php):** Fetches the exam data of the students.

3.3 Dependencies

- **Flutter SDK 3.x**
- **PHP 8.x**
- **MySQL 8.x**
- **Flutter Packages:**
 - http – API communication
 - provider – State management
 - shared_preferences – Local storage
 - file_picker – Assignment upload