
Software Requirements Specifications

for
“ Colegio De Alicia Parent App”

0.1.1V

Prepared by:

Betache, Vince Cherry

Brandino, Zethru

Cabahug, Nathaniel

Lim, Sergekeneth

Lloveras, Juliana Mae

Sagario, Carl

Semine, Keenan

**College of Computer Studies
University of Cebu — Main Campus
February 24, 2026**

Table of Contents

Revision History	2
1. Introduction	1
1.1 Purpose	1
1.2 Intended Audience and Reading Suggestions	1
1.2 Scope	2
1.4 Definitions, Acronyms, and Abbreviations	2
1.5 References	3
1.6 Overview	3
2.1 Product Perspective	4
2.2 Product Functions	4
2.3 User Class and Characteristics	5
2.4 Design and Implementation Constraints	6
2.5 Assumptions and Dependencies	6
3. Specific Requirements	7
3.1 Functional Requirements	7
3.2 Nonfunctional Requirements	8
3.3 External Interface Requirements	9
4. Appendices	11
4.1 Glossary	11

Revision History

Name	Date	Reason For Changes	Version
Cabahug	February 24, 2026	Initial Draft	0.0.0V
Cabahug	February 26, 2026	Continued SRS development	0.0.1V
Cabahug	February 28, 2026	Clarified user roles and characteristics in Section 2.3	0.0.2V
Cabahug	March 2, 2026	Added secure email verification flow to Functional and Nonfunctional Requirements	0.0.3V

1. Introduction

1.1 Purpose

This Software Requirements Specification (SRS) outlines exactly what Colegio De Alicia Parent App needs to do, how it should behave, and the limits it must work within. We're building the Colegio De Alicia Parent App to solve a real problem: parents often struggle to keep up with school requirements because information is scattered across different channels—paper slips, group chats, and separate portals. This document acts as a formal agreement between the development team and stakeholders. It's not just a technical manual; it's the blueprint we'll use for design, coding, testing, and final validation to ensure the app actually makes school-home engagement easier.

1.2 Intended Audience and Reading Suggestions

This document is designed to serve as a comprehensive guide for various stakeholders involved in the lifecycle of the Colegio De Alicia Parent App application. Different sections are tailored to meet the specific needs of each reader group:

Developers: This is your go-to reference for logic, constraints, and integration points. If you're building the payment flow or the grade viewer, head to Section 3.1 for the exact rules. Section 2.4 covers the hard limits (like Android version support), and Section 3.3 defines the APIs you'll connect to.

Project Managers: Use this to track scope and manage expectations. Section 1.3 spells out what's in the MVP versus later phases—helpful for pushing back on feature creep. Section 2.5 flags dependencies (like payment gateway uptime) that could impact timelines.

Testers: Your test cases come from Section 3.1 and 3.2. Those sections define what "working" looks like for features like digital signatures or real-time grade updates. Don't skip the security and performance requirements in 3.2—they're easy to overlook but critical for launch.

Documentation Writers: When you're drafting user guides or help articles, Section 2.2 has plain-language descriptions of each module. Section 1.4 is your terminology cheat sheet to keep wording consistent across all materials.

End-Users (Parents & School Staff): While this is a technical spec, parent reps and admins might skim Section 1.3 and 2.2 to confirm the app aligns with their needs. These

Software Requirements Specification for Colegio De Alicia Parent App

sections explain what Colegio De Alicia Parent App does—like submitting absence requests or viewing tuition breakdowns—without diving into code.

1.2 Scope

Colegio De Alicia Parent App is designed to be the single go-to app for parents managing their children's school life. Instead of juggling multiple logins or physical forms, parents get one dashboard for everything. Core capabilities include a Parent Dashboard for quick stats (attendance, GPA, balances), Academic Monitoring for real-time grades, and Financial Management for tuition payments and receipts.

Beyond the basics, the app handles Attendance Tracking with absence requests, a Document Center for digital records, and a Communication Hub for messaging teachers. We're also including Forms & Requests to go paperless on consent forms and Reports & Analytics for exporting data.

Functionally, the app needs to be intuitive enough for non-tech-savvy users but robust enough to handle sensitive financial and academic data. Performance-wise, it must stay responsive even when loading heavy records like multi-year grade histories. Ultimately, the goal is to reduce administrative friction and keep parents informed without overwhelming them.

1.4 Definitions, Acronyms, and Abbreviations

OTP – One-Time Password. A 6-digit code sent via email to verify a parent's identity during registration. Expires after 10 minutes.

MFA – Multi-Factor Authentication. An optional security layer that requires more than just a password to log in (e.g., SMS code, authenticator app).

School ID – A unique identifier assigned by Colegio De Alicia to each student. Required during parent registration to link guardians to their children's records.

Dashboard – The home screen of the app that displays a summary of all linked children, including attendance %, GPA, tuition balance, and recent activity.

Document Center – A secure section where parents upload, view, and track the status (Pending/Verified/Rejected) of required documents like birth certificates or medical forms.

Financials Module – The part of the app that shows tuition breakdowns, payment history, and allows online payments via cards or e-wallets.

Software Requirements Specification for Colegio De Alicia Parent App

Attendance Tracking – A calendar-based feature showing daily attendance status (Present/Absent/Late) and allowing parents to submit absence requests with photo proof.

Communication Hub – The messaging system that enables direct chat with teachers, receives school announcements, and book meeting slots.

PDF – Portable Document Format. A file format used for report cards, receipts, and official forms that preserves layout across devices.

CSV – Comma-Separated Values. A plain-text format used for exporting reports (e.g., attendance logs) that can be opened in Excel or Google Sheets.

API – Application Programming Interface. The technical bridge that connects the app to school databases, payment gateways, and email services.

UI – User Interface. The screens, buttons, and menus parents interact with in the app.

SRS – Software Requirements Specification. This document, which describes the intended functionality, constraints, and design of the Colegio De Alicia Parent App.

MVP – Minimum Viable Product. The simplest version of the app that delivers core value to parents — including secure login, dashboard, attendance requests, and messaging — without advanced features like payment plans or biometric login.

1.5 References

Software Requirements Specification for Colegio De Alicia Parent App

1.6 Overview

This document is organized into four main sections. Section 1 introduces the purpose, scope, and audience of the specification. Section 2 provides an overall description of the system, including product perspective, user characteristics, and design constraints. Section 3 details the specific functional and nonfunctional requirements, along with external interface specifications. Finally, Section 4 contains supplementary material, including the glossary of terms used throughout the document. The SRS is organized to provide a comprehensive understanding of the system. It begins with an Overview, followed by Product Scope and Product Functions, which describe the high-level objectives, benefits, and core features. Specific Requirements detail functional and non-functional specifications, while Assumptions, Dependencies, and Constraints address factors that may affect development or operation.

Readers are suggested to start with the Overview and Product Scope for context, then move to Functional and Nonfunctional Requirements for detailed information. Developers and testers should focus on Specific Requirements and System Features, project managers on Assumptions and Constraints, and end-users or documentation writers on Product Functions and User Characteristics.

1.7 Development Methodology and SDLC Model

1.7.1 SDLC Model Used: Agile (Iterative Development)

The Colegio De Alicia Parent App follows the Agile SDLC model. The system is built in small, time-boxed cycles called sprints, where each sprint delivers a working set of features—from login and dashboard to payments and forms. After every sprint, the team reviews progress with school stakeholders and adjusts the next steps based on feedback.

Agile is the right fit because:

- Parent needs can change during development (e.g., new document types, payment options).
- Features like OTP verification, digital forms, and real-time grades can be tested early.
- It keeps the project flexible, user-focused, and aligned with school requirements.

1.7.2 Development Approach

We prioritize core modules first for the Minimum Viable Product (MVP):

- Secure login + email verification
- Dashboard (attendance, GPA, balance)
- Attendance requests & messaging

Software Requirements Specification for Colegio De Alicia Parent App

Less critical features (e.g., MFA, advanced reports) come in later sprints.

Daily check-ins, sprint reviews, and a shared backlog keep the team on track—ensuring we deliver a simple, secure, and reliable app for parents.

2. Overall Description

2.1 Product Perspective

Colegio De Alicia Parent App isn't just a standalone app; it's the parent-facing window into the school's larger digital ecosystem. While it lives on the parent's phone (Android), it relies on a central school database to fetch grades and financial records. Think of it as replacing the traditional "parent-teacher conference" slip and the physical tuition receipt with a real-time digital equivalent. It integrates with existing school systems but is specialized for the parent experience—focusing on clarity, security, and ease of access rather than administrative data entry.

2.2 Product Functions

We've broken the system down into ten core modules based on actual parent needs:

Parent Dashboard: The home screen. It shows a snapshot of all enrolled children, highlighting urgent items like pending payments or low attendance. It also includes a feed of recent activity and a calendar for upcoming events.

Student Information Access: Detailed profiles for each child. Parents can check academic programs, class schedules, and update emergency contact info without visiting the registrar.

Academic Monitoring: Real-time grade viewing. Parents can drill down by subject or semester, track GPA trends, and download progress reports. The app will also flag failing grades automatically.

Attendance Tracking: A calendar view showing present, absent, or late status. Parents can see why a student was absent and submit absence requests directly through the app.

Financial Management: This handles tuition. Parents can view fee breakdowns, see payment schedules, and pay online via integrated gateways. It also stores digital receipts and sends alerts for outstanding balances.

Software Requirements Specification for Colegio De Alicia Parent App

Document Center: A secure vault for birth certificates, IDs, and medical records. Parents can upload required files, check verification status, and download official school forms.

Communication Hub: Direct messaging with teachers and advisors. It also handles school-wide announcements and allows parents to schedule meetings or submit feedback.

Forms & Requests: Digital versions of common paper forms. Consent for field trips, leave requests, and transcript requests can be filled out and signed digitally.

Announcements & Notifications: Push notifications for urgent alerts (e.g., class suspensions) and reminders for deadlines. These can be targeted by grade level or sent school-wide.

Reports & Analytics: Tools to generate summaries. Parents can export attendance or financial data to PDF/Excel for their own records.

2.3 User Class and Characteristics

Parents (Primary Users)

Parents are the main users of Colegio De Alicia Parent App. Many aren't tech-savvy, so the app must be simple and easy to navigate. They need fast, accurate info—like real-time grades or tuition balances—and expect strong security since they're accessing their children's data.

School Administrators (Secondary Users)

Admins handle the backend: approving forms, managing announcements, and checking documents. They need reliable tools that keep data accurate and let them respond quickly to parent requests.

Teachers (Secondary Users)

Teachers enter grades, attendance, and class updates. The system should make this quick and hassle-free so it doesn't add extra work to their day.

Students (Limited Access)

Students aren't the focus of this app. Depending on school policy, they might view their own schedule or grades, but all core features are built for parents and staff.

2.4 Design and Implementation Constraints

2.5 Assumptions and Dependencies

3. Specific Requirements

3.1 Functional Requirements

Secure Account Registration and Verification:

To ensure only verified parents/guardians access the system, Colegio De Alicia Parent App implements a two-step registration process:

1. Users may register using **Email** or **Facebook**.
2. If **Email** is selected, the system sends a **6-digit verification code** to the provided address.
3. The user must enter the code within **10 minutes to proceed**. After **3 failed attempts**, the email is locked for **15 minutes** to prevent bot abuse.
4. Upon successful verification, the user completes the Parent Registration Form, providing full name, contact details, relationship to student(s), and Student's School ID (required to link children to the account).
5. Only verified accounts gain access to the Parent Dashboard and sensitive modules.

Dashboard: Upon login, the app must show a summary card for each child. It needs to display attendance %, GPA, and balance due. An activity feed should list recent changes (e.g., "New Grade Posted").

Academic Records: Parents can select a semester to view subject grades. The app calculates GPA automatically. Users can download a PDF report card. If a grade drops below passing, a push notification is triggered.

Attendance: A calendar view marks days as Present, Absent, or Late. Parents can submit an absence request with a reason and attach a photo (e.g., medical cert). Notifications go out if a student is marked late.

Software Requirements Specification for Colegio De Alicia Parent App

Financials: Tuition breakdowns must be visible per semester. The app integrates with a payment gateway for cards/e-wallets. A digital receipt generates immediately after payment. Parents can request payment plans via a form.

Documents: Users can upload PDFs or images of required docs. The system shows status (Pending, Verified, Rejected). Blank official forms are available for download.

Communication: A chat interface allows messaging teachers. Admins can broadcast announcements. Parents can book meeting slots based on teacher availability.

Digital Forms: Consent forms include signature capture. Leave requests and medical excuses can be submitted digitally. Status tracking (Approved/Denied) is visible to the user.

Reporting: Users filter reports by date. Data exports to PDF or CSV are supported.

Account Security: Login requires email/phone and password. Multi-Factor Authentication (MFA) is supported. One account can link multiple students.

3.2 Nonfunctional Requirements

3.2.1 Security

The system must send a 6-digit OTP to the user's email before letting them create an account—this stops bots and fake sign-ups. If someone enters the wrong code 3 times, their email gets locked for 15 minutes. OTPs expire after 10 minutes. Passwords must be hashed (like with bcrypt)—never saved as plain text. Sessions end automatically after 30 minutes of inactivity or right when the user logs out.

3.2.2 Reliability

OTP emails should arrive 99% of the time under normal internet conditions. If a parent doesn't get the code, they can click "Resend" without starting over. No personal info (name, student ID, etc.) is saved until the email is verified.

3.2.3 Usability

The whole sign-up process should take no more than 3 screens:

1. Choose Email or Facebook
2. Enter OTP
3. Fill in parent details and student's School ID

Error messages should be simple—like "Invalid code," not technical jargon. The app must support bigger text and clear contrast for parents who aren't tech-savvy.

Software Requirements Specification for Colegio De Alicia Parent App

3.2.4 Performance

OTPs must arrive within 10 seconds. The verification screen should load in 2 seconds or less on 3G or better.

3.2.5 Maintainability

We should be able to switch email services (like from Firebase to SendGrid) without rewriting big parts of the code. The login system should be built so we can add MFA, biometrics, or authenticator apps later without trouble.

3.3 External Interface Requirements

4. Appendices

Supplementary Documentation (Course Additions)

A. Software Introduction

This is a brief summary derived from the Introduction (1.1 Purpose, 1.2 Scope) of the main SRS document.

Software Name	Colegio De Alicia Parent App
Purpose	To provide a single mobile application where parents can monitor academic progress, manage tuition payments, submit documents, and communicate with teachers — all in one place.
Target Audience	Parents/Guardians (primary), School Administrators, Teachers
Goal	To reduce administrative friction between home and school by replacing paper forms, scattered messages, and multiple portals with a secure, intuitive, and real-time digital experience.

B. User Stories

These stories capture the desired functionality from the perspective of key user classes, forming the basis for Functional Requirements (Section 3.1).

User Class	Goal	Reason
As a Parent	I want to log in using email or Facebook, then verify my identity with an OTP before creating my account	so that only verified guardians can access my child's sensitive academic and financial data
As a Parent	I want to see a dashboard showing my child's attendance %, GPA, and tuition balance as soon as I log in	so I can quickly check what's urgent without digging through menus
As a Parent	I want to submit an absence request with a photo of a medical certificate	so I don't have to send physical notes or emails to the school

Software Requirements Specification for Colegio De Alicia Parent App

As a Parent	I want to pay tuition online and get a digital receipt instantly	so I have proof of payment and avoid late fees
As a Parent	I want to message my child's teacher directly through the app	so communication stays organized and doesn't get lost in group chats
As a Parent	I want to download my child's report card as a PDF	so I can keep records or share them with tutors
As a School Admin	I want to approve or reject uploaded documents with one click	so I can process requests quickly during busy periods
As a Teacher	I want grades to sync automatically to Colegio De Alicia Parent App when I post them	so parents see updates in real time without me doing extra work