Application Name: Scolaris Pay
Supported Platforms: iOS, Android
Target Audience: Parents and guardians of school-going children

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Scolaris Pay: Mobile Application for School Fee Payments

Introduction

This proposal outlines the development of a School Fee Payment mobile application and its supporting backend system. The solution is designed to streamline fee management processes, enhance user experience, and provide role-based access control for effective administration.

Project Overview

Objective: Develop a cross-platform mobile application and backend system with features to manage fee payments, user roles, and administration functionalities efficiently.

Technologies:

- **Mobile App:** React Native (to ensure compatibility with both Android and iOS platforms).
- **Backend:** Node.js or PHP (Laravel)

Key Features

Main Features:

1. **Registration and Login:**
    - Users can register or log in using multiple methods:
        - Phone number and email.
        - Social media accounts like Google, Facebook, or Apple.
    - Password recovery will be enabled using either an email ID or a phone number, but not both simultaneously, and two-factor authentication

(2FA) will not be implemented.

2. **School Selection (Senegal):**
    - Users can search for schools by name, location, or unique school ID.
    - Save and manage multiple schools for families with children enrolled in different institutions.
    - View detailed information about the school, such as address, contact details, and supported payment categories.

3. **Payment Motive Selection:**
    - Users can choose from various payment categories, including:
        - Tuition fees.
        - Transportation.
        - Meals.
        - Extracurricular activities.
    - Multiple payment categories can be selected in a single transaction, simplifying the process.

4. **Student Information:**
    - Add and manage multiple student profiles under a single parent account.
    - Input details such as student name, grade/class, and roll number to link payments to the correct record.

5. **Payment Summary and Confirmation:**
    - Display a detailed breakdown of payment items, including:
        - Selected payment motifs.
        - Associated amounts.
        - Any applicable discounts or additional charges.
    - Allow users to confirm and edit payment details before proceeding.

6. **Secure Payment:**
    - Integration with multiple payment gateways to support various methods:
        - Credit/debit cards.
        - Mobile wallets.
        - Bank transfers.
    - Advanced encryption protocols to ensure transaction security.
    - Support for partial payments or installment-based plans where applicable.

7. **Confirmation and Receipt:**

    - Instant confirmation upon successful payment.
    - Digital receipts with detailed transaction breakdowns.
    - Option to download, email, or share receipts directly from the app.

8. **Payment History:**
    - Comprehensive history of all past payments, organized by:
        - Date.
        - Fee type.
        - Student profile.
    - Advanced filtering options for easy tracking and record-keeping.

Backend Panel Features:

1. **Role Management:**
    - Super admin can assign/revoke sub-admin roles.
    - View and manage user roles and permissions.
2. **Fee Structure Management:**
    - Define and update fee structures for different grades/classes.
3. **Transaction Management:**
    - Monitor all transactions with detailed logs.
    - Generate reports (daily, weekly, monthly).
4. **Communication Module:**
    - Send bulk notifications or personalized messages to parents.
5. **Data Analytics:**
    - Dashboard for insights such as payment trends, overdue accounts, and more.
6. **Security Features:**
    - Role-based access control (RBAC).
    - Data encryption for sensitive information.

Development Phases

Phase 1: Requirement Gathering & Analysis

- Study client requirements thoroughly (as per the attached document).
- Create a detailed technical specification document.

Phase 2: Design

- **UI/UX Design:**
    - Design wireframes for the mobile app.
    - Ensure intuitive navigation and user-friendly interfaces.

    - **Screens to be Designed:**
        - User Registration and Login
        - School Selection
        - Payment Motive Selection
        - Student Information
        - Payment Summary and Confirmation
        - Secure Payment Interface
        - Confirmation and Receipt
        - Payment History Dashboard

NOTE - We need to consider all micro interactions in between.

- **Backend Design:**
    - Database schema design.
    - API structure documentation.

Phase 3: Development

- **Mobile App:**
    - Develop React Native app with core features.
    - Implement payment gateway integration (paystack)
- **Backend:**
    - Build the backend with API endpoints to support mobile app functionalities.
    - Set up a secure and scalable database.

Phase 4: Testing

- Conduct unit testing, integration testing, and user acceptance testing (UAT).
- Ensure compatibility across devices and platforms.

Phase 5: Deployment & Support

- Deploy the mobile app to app stores (Google Play Store, Apple App Store).
- Host the backend system on a reliable server/cloud service (server/ cloud details provided by client)
- Provide post-deployment support and maintenance.

Deliverables

1. Fully functional mobile application.
2. Secure and scalable backend system.
3. Documentation for:
    - User guides.
    - API reference.
    - Admin panel usage.
4. Post-deployment support for 1 month

Cost Estimation

A detailed cost estimation will be provided after reviewing the full scope of work and additional client requirements.