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MINI PROJECT PROPOSAL

MSACCO MOBILE APP

***Submitted***

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**MALAWI**

**PROJECT TITLE: MSACCO MOBILE APP**

**Abstract**

The proposed system is a document and user information management system called MSACCO Mobile App which is being designed for Msilikali Savings and Credit Cooperative Organization (MSACCO). The project aims to offer MSACCO members secure and easy access to their accounts via mobile devices. Currently, MSACCO members rely on USSD (Unstructured Supplementary Service Data) to access these services, which is limited in functionality and user experience. The proposed app will provide a more comprehensive and user-friendly platform to perform MSACCO-related activities such as balance checks, fund transfers, loan applications, and real-time notifications.

By using Flutter for the front end and Laravel for the back end, the MSACCO Mobile App will significantly enhance the accessibility, security, and user experience compared to the existing USSD system.

**Existing Systems**

* USSD for SACCO Services: Currently, MSACCO members access services through a USSD code, which allows them to perform basic operations like checking balances and funds transfer. While USSD is widely accessible and works on feature phones, it has user experience, security, and service scope limitations.
* Banking Applications: Current banking apps offer more advanced functionalities such as real-time notifications, detailed transaction histories, and fund transfers.

**Why the MSACCO Mobile App is better than USSD**

**1. Enhanced User Experience**

USSD services are text-based and limited to simple menus. The mobile app will offer a graphical user interface (GUI) that is more intuitive and interactive. Features such as real-time notifications, and visual transaction histories will be accessible at the touch of a button.

**2. More Comprehensive Features**

USSD supports only basic operations, whereas the app will offer a complete suite of services, including detailed loan application, fund transfers, and savings management.

**3. Security**

USSD sessions are vulnerable to interception and have no strong authentication mechanisms. The mobile app will use biometric authentication (fingerprint, face recognition) to ensure data protection and secure access to user accounts**.**

**4. Offline Capabilities**

Although USSD works without internet access, the mobile app can also offer some offline features, such as saving recent transactions or notifications, while providing better service when online.

**5. Personalized Notifications**

The mobile app will offer real-time push notifications about transactions, upcoming loan payments, and SACCO promotions. This is a significant improvement over USSD, which does not support such interactive communication.

**Proposed System**

The MSACCO Mobile App introduces an all-in-one solution for SACCO members to manage their financial needs on the go. The app will leverage modern technologies to provide seamless interactions, ensuring ease of use and enhanced security**.**

**Core Features/ Modules**

* Account Management: Users can view account balances, transaction history, and savings.
* Fund Transfers: Members can transfer funds between SACCO accounts securely.
* Notifications: Real-time alerts for account activities.
* Loan application: users can apply for loans, check loan statuses, and manage repayments.
* Secure Authentication: Biometric for securing user accounts.

**Front End**

* The front end will be developed using **Flutter**, a versatile and powerful UI toolkit that enables building natively compiled applications for mobile, web, and desktop from a single codebase.

**Back End**

* **Framework**: **Laravel** will be used for the back-end, providing an efficient development environment and support for **REST API** implementation.
* **API**: The back-end will expose a **REST API** built in Laravel to allow communication between the app and the server.

**Hosting**

* The application will be hosted on **Namecheap**, a reliable hosting platform for Laravel applications, ensuring good performance and security.

**Testing**

* **Postman** will be used to test the API endpoints, ensuring smooth interaction between the front end and back end.

**Development Tools**

* **Flutter:** For mobile app development across platforms.