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MyChama

Connecting Savings Groups to Smart Financial Tools

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APT3065 Mid-Term Project

Requirements Document

1. Introduction

a. Project Overview

MyChama is a web and mobile-based platform developed to simplify the management of rotating savings and credit associations (ROSCAs), commonly known as *chamas*. The system provides a digital alternative to manual processes by offering features like contribution tracking, loan management, meeting scheduling, and transparent communication between members and leaders.

b. Purpose

The purpose of this document is to provide a structured outline of the requirements that define the behavior, limitations, and expected outcomes of the MyChama system. It ensures that developers, project sponsors, and stakeholders have a shared understanding of the project scope and goals.

c. Scope

This requirements document defines the core functionalities of the MyChama system, focusing on four primary areas: membership management, which includes user registration, role allocation, and access control; financial operations, covering contribution tracking, loan management, and the generation of financial statements; communication features, such as group announcements, member chats, and voting mechanisms; and event coordination, including meeting scheduling and automated reminders. The document is limited to outlining system behavior and user-facing requirements, and it deliberately excludes technical implementation details and third-party infrastructure decisions, such as server configurations or hosting platforms.

2. Stakeholder Identification

Stakeholders are individuals or groups with a vested interest in the system. Understanding their roles ensures that all needs are addressed during development.

STAKEHOLDER	DESCRIPTION	NEEDS
CHAMA MEMBERS	General participants who make contributions and request loans	Transparency, mobile access, balance tracking

CHAMA LEADERS	Chairperson, Treasurer, Secretary – oversee operations	Role-based access, member management, reporting, loan approval
SYSTEM ADMIN	Technical overseer who maintains system integrity and manages user roles	Error handling, admin dashboard, user permissions
DEVELOPERS	Student team building the solution	Clear specs, user stories, technical constraints
FINTECH ADVISORS	Professionals from financial tech backgrounds offering industry insight	M-Pesa integration, financial compliance
FUTURE USERS	Individuals not in a chama yet but considering joining one	Easy onboarding, clear user interface, education tools

3. Data Collection Summary

To ground the system in real-world needs, we conducted a Google Forms survey shared via WhatsApp. The total sample included 11 respondents from Nairobi and surrounding areas.

Key findings:

- **62.5%** of chamas have fewer than 10 members (small, tight-knit groups).
- **0%** use a dedicated digital app, most rely on; WhatsApp, Excel, or manual books.
- **Top challenges:** missed meetings (62.5%), tracking contributions (62.5%), poor recordkeeping.
- **Most requested features:** digital records (80%), contribution reminders (70%), M-Pesa integration (60%).

These findings shape the system’s functional priorities and validate the need for a dedicated app like MyChama.

4. System Overview

MyChama is designed as a modular system, with each component supporting a core aspect of chama operations:

- **Authentication Module:** Secure registration, login, and role assignment
- **Finance Module:** Tracks member contributions, issues loan, calculates balances, and generates reports
- **Meeting Management:** Schedules meetings, sends reminders, tracks attendance
- **Communication Module:** Supports in-app announcements, chat, and voting

- **Dashboard & Analytics:** Real-time insights for both members and leaders
- **M-Pesa Integration Layer:** Enables mobile transactions for contributions and disbursements

The system will support both mobile-first design (for on-the-go members) and web access for admin tasks.

5. Functional Requirements

Functional requirements define what the system should do. They include:

ID	DESCRIPTION	RATIONALE	ACCEPTANCE CRITERIA
FR-01	System shall allow a chama admin to create a chama with a name and members.	Set up chama structure.	Admin can enter chama name and add members.
FR-02	System shall allow members to log in using phone number and OTP.	Easy and secure login.	Members receive OTP and can log in successfully.
FR-03	System shall record member payments made via M-Pesa.	Track payments digitally.	Payments are visible under the correct member's account.
FR-04	System shall show a list of monthly contributions per member.	Track who has paid.	Users see who paid and who hasn't for each month.
FR-05	System shall allow members to apply for a loan.	Enable loan requests.	Member can fill and submit a simple loan request form.

6. Non-Functional Requirements

Non-functional requirements (NFRs) describe how the system should behave:

ID	DESCRIPTION	RATIONALE	ACCEPTANCE CRITERIA
NFR-01	System shall work on both phones and computers.	Accessibility for all users.	All main features work on mobile and desktop browsers.
NFR-02	System shall respond to actions in under 3 seconds.	Good user experience.	Pages and actions load within 3 seconds 90% of the time.
NFR-03	System shall keep member data private and secure.	Protect user information.	Member info is not visible to others outside the chama.
NFR-04	System shall be available at least 95% of the time.	Ensure system is reliable.	App is up and working most of the time with minimal downtime.

These ensure the platform is reliable, secure, and usable for Kenyan users.

7. Assumptions and Constraints

This section outlines environmental factors, limitations, or decisions already made:

- It is assumed that most users own smartphones and have intermittent internet access.
- The initial version will only support English (Swahili may be added later).
- SMS reminders will be limited unless a bulk SMS provider partnership is secured.
- M-Pesa integration depends on Safaricom API access, which may require delays or workarounds.
- The system must be fully delivered and functional within the academic project timeline (e.g., 3 months).

8. Acceptance Criteria

These are testable outcomes that will determine if the system meets its requirements:

ID	ACCEPTANCE CRITERIA
AC1	Users can create an account and log in successfully
AC2	Members can view their contributions and see up-to-date balances
AC3	Loan applications can be submitted, reviewed, and approved/rejected by leaders
AC4	Meeting reminders are sent automatically via app notification or SMS
AC5	All selected features from the user survey are included in the MVP

These criteria help guide final system evaluation and stakeholder sign-off.