CHAPTER 1: Introduction

* 1. INTRODUCTION

Agriculture management system

* 1. PROJECT BACKGROUND AND MOTIVATION

Currently, there are some systems which deals with agriculture

* 1. PROBLEM STATEMENT
* Limited focus on crop cultivation in Zanzibar: The existing system primarily caters to Tanzania and does not provide specific information on crop cultivation in Zanzibar.
* Lack of a comprehensive budgeting tool: The system does not offer a detailed budget template, hindering farmers from effectively managing their expenses.
* Absence of supply for fertilizers and pesticides in Zanzibar: While Barefoot supplies in Tanzania, there's a gap in providing these resources specifically for Zanzibar.
* Language barrier: The existing system is in English, which may not be accessible to all farmers, especially those more comfortable with Swahili.
* Limited emphasis on crop-related information: Agriweb focuses more on animals, leaving a gap in crop-related information and resources.
* Absence of direct input for farmers post-harvest: The system lacks a feature for farmers to input information after harvest, such as yields and profits.
  1. PROBLEMS SOLUTION AND SCOPE

**Problem solution**

* Expansion to include information on crop cultivation in Zanzibar.
* Development of a detailed budget template for crop cultivation to assist farmers in managing their expenses effectively.
* Establishment of a supply chain for fertilizers and pesticides in Zanzibar.
* Translation of the existing system into Swahili for broader accessibility.
* Inclusion of crop-specific information and resources.
* Integration of a feature for farmers to input post-harvest data, such as yields and profits.

**SCOPE**

1. **Geographical Scope:**
   * The system will cover both Tanzania and Zanzibar, providing information and support tailored to the specific agricultural practices and needs of farmers in these regions.
2. **Crop Cultivation:**
   * The system will extensively focus on crop cultivation, offering guidance on various crops, cultivation techniques, and best practices.
3. **Budgeting and Financial Management:**
   * A comprehensive budgeting tool will be included to assist farmers in planning, tracking, and managing their expenses related to crop cultivation.
4. **Post-Harvest Data Input:**
   * A feature will be integrated to allow farmers to input information post-harvest, such as yields and profits, enabling them to analyze the success of their cultivation efforts and make informed decisions for future seasons.
5. **User-Friendly Interface:**
   * The system will have an intuitive and user-friendly interface, making it accessible to farmers with varying levels of technological expertise.
6. **Education and Resources:**
   * In addition to cultivation and budgeting tools, the system will provide educational resources, and guidelines to empower farmers with knowledge and skills for sustainable and successful crop cultivation.
7. **Collaboration with Local Stores:**
   * Information on reputable local stores for obtaining fertilizers and pesticides will be included, fostering collaboration between the system and trusted suppliers.
   1. OBJECTIVES
   2. FEASIBILITY STUDY REPORT – OPERATIONAL, ECONOMIC, LEGAL AND TECHNICAL FEASIBILITY
   3. ORGANIZATION OF THE PROJECT

CHAPTER 2: Literature review

2.1) INTRODUCTION

2.2) RELATED WORK

2.3) PREVIOUS SYSTEMS (OR SIMILAR APPLICATIONS)

CHAPTER 3: Project Methodology

3.1. Introduction

3.2. Software development approach (object oriented or structured)

Object-Oriented Approach

3.3. Software development life cycle model (SDLC)

Agile

3.4. Software development tools

1. For designing: draw.io
2. System development platform:
3. DBMS: PostgreSQL
4. Front-end tools: react
5. Back-end tools: spring boot

3.5. Information Gathering and Analysis

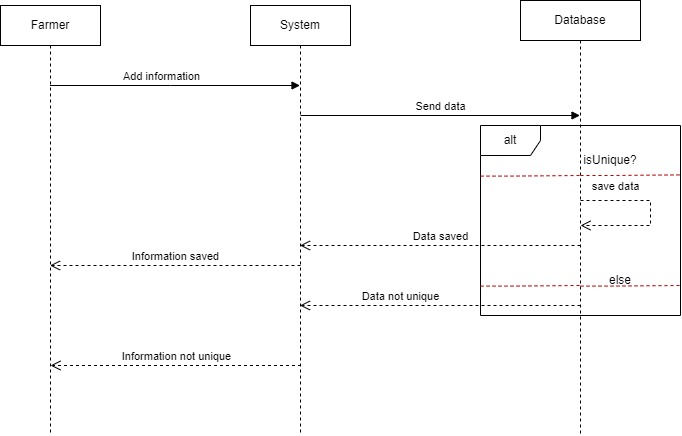
3.6. System Analysis

**USE CASE DIAGRAM**

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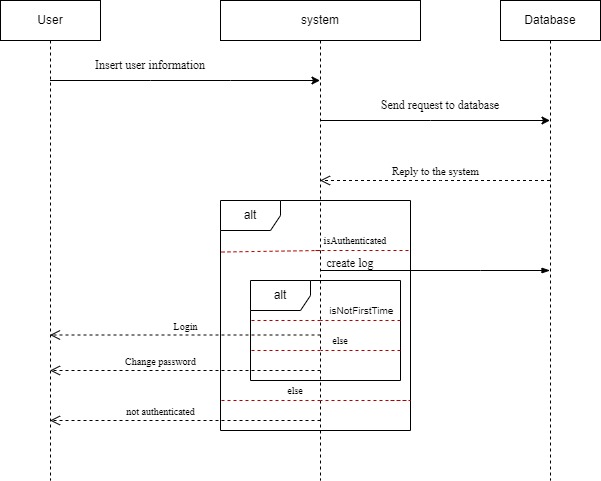
**SEQUENCE DIAGRAM**

Farmer self registration UML Sequence diagram



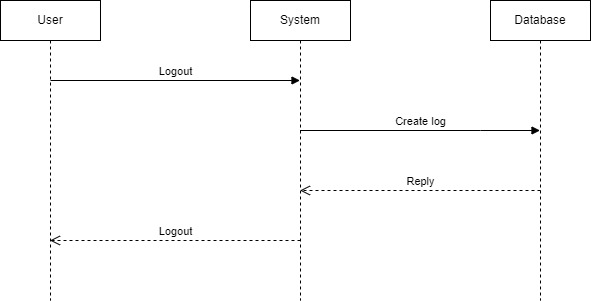
Narration

Login UML Sequence diagram



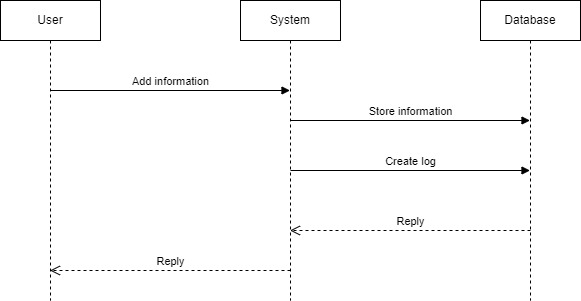
Narration

Logout UML Sequence diagram



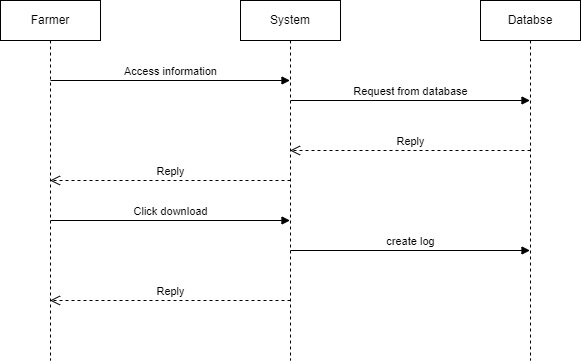
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Manage Data UML Sequence diagram



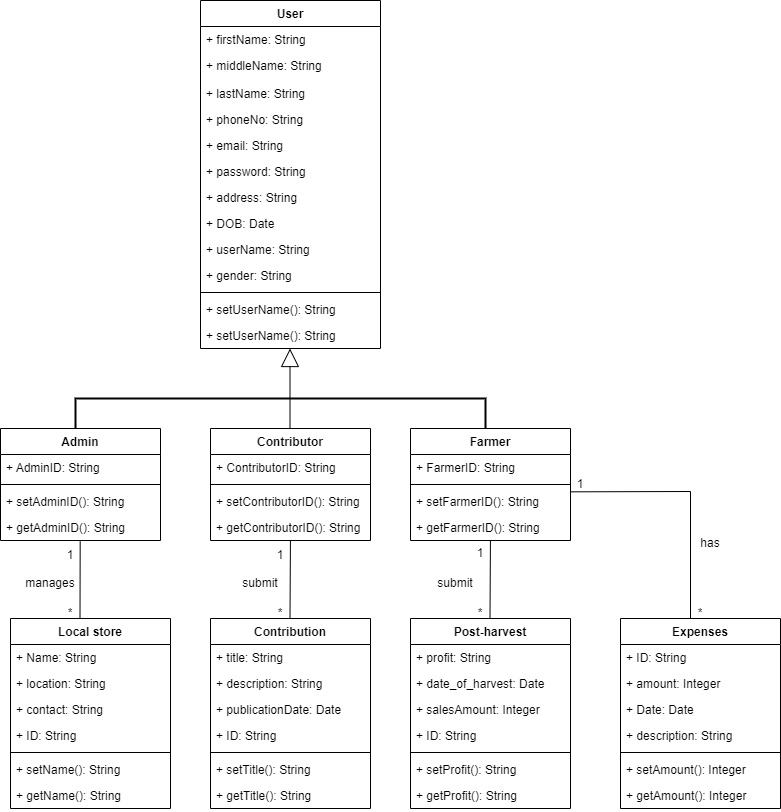
Narration

Download UML Sequence diagram



Narration

**CLASS DIAGRAM**



CHAPTER 4: System Analysis

4.1. Existing System

4.1.1. Existing System Description

4.1.2. Business Rules

4.2. Requirements Specification

4.2.1. Functional Requirements

4.2.2. Non-functional requirements

4.2.3. Performance Requirements

4.2.4. Software and Hardware Requirements

4.2.5. Preliminary Product Description

CHAPTER 5: System Design

5.1. Architectural design

5.2. Proposed software architecture

5.3. Database Design

5.4. User Interface Design

5.5. Access control and security

CHAPTER 6: System implementation and testing

6.1. Technologies

6.2. Database implementation

6.2.1. Internal Schema of database (database schema)

6.2.2. Data Dictionary

6.3. Testing

6.4. User Interfaces

6.5. Strength ad Limitation of the system

6.5.1. What is covered from requirements

6.5.2. What is not covered

CHAPTER 6: Conclusion, Recommendations Challenges and References

8. References