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DEVELOPING%20A%20WEB%20BASED%20LOAN%20TRACKI...

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DEVELOPING A WEBBASED LOAN TRACKING AND MANAGEMENT

SYSTEM FOR THE
MINISTRY OF FINANCE STAFF SACCO IN
KAMPALA

DISTRICT

1.INTRODUCTION

1.1 Project
Background

Financial management systems have increasingly
transformed the way organizations

handle savings, credit
administration and loan processing across the world.
Globally,

digital and web-based financial technologies have become
central in improving

accuracy, operational efficiency and
accessibility of financial services for both

institutions and
their clients. According to Kofi and Mensah (2020), "the adoption
of

automated financial platforms significantly reduces human error
and enhance reliability

of financial records." These systems
enable automated data handling, real-time

reporting, faster
decision making and improved transparency which are essential
in

modern financial environments. As highlighted by Lee (2021),
"real-time financial

information supports better decision-making
and improves institutional accountability."

As financial
technology (Fin Tech) continues to evolve, many countries are
adopting

digital tools to strengthen financial inclusion, promote
accountability and enhance the

quality-of-service delivery within
financial institutions (World Bank, 2022).

In Uganda, the adoption
of digital financial systems has grown significantly
especially

within Savings and Credit Cooperative Organizations
(SACCOs) which play a critical

role in supporting economic
empowerment. SACCOs provide affordable credit,

promote a saving
culture and extended financial services to salary earners and
small

business owners. According to The Uganda Cooperative
Alliance (2021), SACCOs

offer a safe and accessible mechanism for
individuals to save and borrow funds

collectively. As membership
numbers increase nationwide, accurate loan management,

repayment
tracking and information accessibility have become essential for
ensuring

sustainability, financial accountability and member
satisfaction. Digital loan

management systems have been recognized
as vital tools for enhancing transparency,

reducing manual errors
and improving management oversight (International

Cooperative
Alliance, 2023).

The Ministry of Finance Staff SACCO operates
within this national SACCO landscape

providing savings and credit
services to its members. The SACCO has expanded rapidly

with
increased membership and a growing volume of loan transactions. However,
much

of its loan processing, tracking and reporting is still
performed manually using paper

based forms and spreadsheets. This
manual approach has led to challenges such as

inconsistencies in
records, delays in loan approvals, missing documents, difficulty
in

generating accurate financial reports and limited visibility
into loan performance.

Kabugo (2024) notes that manual data entry
methods commonly used in Ugandan

SACCOs contribute to
inefficiencies, poor tracking of member activities and slow
loan

recovery.

Digital transformations within SACCOs offers
a great opportunity to address these

challenges. A web-based loan
tracking and management system can streamline loan

applications,
automate approval workflows, track repayments in real time and
generate

instant reports, hence reducing human errors and
supporting reliable internal controls.

Such systems improve
service delivery to members, enhance transparency, ensure

timely

access to financial information and strengthen management's ability to monitor loan performance from anywhere. Implementing a digital system aligns with the broader national movement towards ICT-driven financial management solutions. Therefore, this project proposes the development of a web-based loan tracking and management system for the Ministry of Finance Staff SACCO. The system will automate member registration, loan applications, approval processes, repayment tracking and reporting. This will improve accuracy, accessibility, efficiency and transparency in the SACCO's operations while solving the challenges associated with manual loan management.

1.2 Statement of the problem

Loan Management systems are designed to provide efficiency, accuracy, and real-time tracking of loan processes. However currently Ministry of Finance Staff SACCO still manages its loan processes manually. The members apply for the loans physically with application forms making it difficult to track repayments and maintain up to date information. Makola (2019) noted that manual loan tracking leads to frequent errors, delays in processing and weak internal control mechanisms in Ugandan SACCOs. Unfortunately this manual system causes delayed loan approvals due to lengthy verification processes, poor tracking of delinquent loans, customer dissatisfaction due to long loan processes, limited accessibility to financial data and reports. The Ministry of Finance Staff SACCO risks losing clients, discouraging the staff members from saving with the SACCO. A web-based loan tracking and management system will help eliminate these inefficiencies by automating critical processes, ensuring data integrity and providing real time access to loan information.

1.3 Project goal and objectives

1.3.1 Project goal

To design and develop a web-based loan tracking and management system for Ministry of Finance Staff Sacco that improves efficiency, accuracy, automate loan processing, enhance tracking and improve member services.

1.3.2 project objectives

To study and analyze the current loan management processes and challenges at ministry of finance Sacco.
To review literature relating to a web based loan tracking and management system and the requirements for building a web based loan tracking and management system for Ministry of Finance Staff SACCO.
To identify the functional and technical requirements for a web-based loan tracking and management system for ministry of finance staff Sacco.
To design and develop a web-based loan tracking and management system for ministry of finance staff Sacco.
To test the web-based loan tracking and management system to ensure usability, functionality and accuracy in Sacco operations.

1.3.3 Project scope summary

The project focuses on processing loans and tracking loans. The study is going to be conducted at the Ministry of Finance Staff SACCO in Kampala Uganda. The study is going to take a period of four months that is from August 2025 to November 2025 comprising of the data collection, system design and development, implementation and testing.

Significance of the study

The project is justified by the need to improve on the loan processing and tracking among the members:

- For the Administrators: Improve operational efficiency through automation.
- Enhance data accuracy and minimize errors
- For the Members: Provide transparency in loan

processing and repayment
 Enable real time reporting and better decision making
 Improve member satisfaction through easy access to loan information
 As Musiita et al. (2023) highlight. ICT based tools enable SACCOs to improve operational performance, member confidence and sustainability.
 For the project team: this provides valuable hands-on experience in designing financial information systems, aligning academic theory with real world application.

1.4 Anticipated significance of project

The new system will benefit Ministry of Finance Staff SACCO by reducing loan processing time.
 The members will access the system at any time and from anywhere.
 The system will improve in proper record keeping
 The system will improve on member satisfaction through transparent tracking
 For the team: the system provides an opportunity in applying theoretical knowledge in database management, system analysis and gaining experience into solving real business problems.

1.5 Project Assumptions

The SACCO management and staff will cooperate in providing information for requirements analysis.
 The system will support different user roles that is members, loan officers, SACCO committee.
 The SACCO has the basic computer and internet infrastructure to host and use a web application.
 All team members will be available to work together throughout the project.
 Reliable internet connection will be available during system development and testing.

SECTION TWO

REVIEW OF LITERATURE

2.0 Introduction

This section reviews literature related to SACCO operations, loan management systems and the role of Information and Communication Technology (ICT) in improving financial services. It provides the theoretical foundations and knowledge that supports the design and development of a web-based loan tracking and management system for Ministry of Finance Staff SACCO. The review highlights the importance of ICT in financial management, identifies existing systems and analyses challenges in manual loan management as well as the contribution of web-based solutions to the SACCO efficiency.

2.1 SACCO operations in Uganda

Savings and Credit Cooperative Organizations (SACCOs) in Uganda were established to promote savings and affordable credit to low- and middle-income earners. According to Ministry of Trade, Industry and Cooperatives (2023), reported that SACCOs play a vital role in advancing financial inclusion and socio-economic development across the country. However, many SACCOs still rely on manual record systems that are prone to inefficiencies, data inaccuracies and delays in service delivery.
 Anyango (2022) noted that stand-alone SACCO systems without automation are often affected by record inconsistencies and limited access to real-time data hence leading to poor accountability. Therefore, automating these processes ensures reliability and enhances transparency in financial management. Similarly, Kabugo (2024) emphasized that ICT-based SACCOs experience improved record management and stronger member trust.
 In Uganda, the government has promoted initiatives such as the Parish Development Model (PDM) to enhance access to financial services through SACCOs. These initiatives highlight the growing need for technology-driven systems that can support efficient operations and accountability (World Bank, 2022).

2.2 Role of ICT in

enhancing financial services

ICT plays a transformative role in the financial sector by improving accuracy,

transparency and accessibility. Kabugo (2024) observed that ICT adoption in SACCOs

has significantly improved record management, reporting accuracy and customer

satisfaction. The World Bank (2022) adds that digital transformation in finance

promotes transparency, efficiency and inclusion by reducing manual errors and

fostering real-time decision-making.

ICT applications such as online databases, web portals and mobile banking platforms

have empowered SACCO members to access information and services conveniently.

According to Musiita et al. (2023), web-based systems enhance accountability by

automating transactions, thereby reducing fraud and human error. Consequently, ICT-

driven solutions enable SACCOs to achieve financial sustainability and improved

service delivery.

2.3 The concept of loan management and tracking.

Loan management involves the processes of receiving applications, approving loans,

disbursing funds and tracking repayments. According to Makoha (2019), "effective

loan tracking enables financial institutions to identify delinquent accounts early,

strengthen recovery measures, and sustain portfolio quality" (p. 51).

Manual loan systems, however fail to provide timely data due to limited record control

and absence of automated reminders. Kabugo (2024) observed that "manual loan

recording introduces human errors and delays that compromise repayment efficiency

and financial reporting" (p. 28).

According to Kasozi and Mugisha (2021), automation in loan management minimizes

the risks of human error and enhances the overall accuracy of financial records.

Automated systems also provide audit trail that strengthens accountability and

transparency and both are essential for SACCO credibility.

2.4 Existing loan management systems.

Various systems have been developed to automate financial services in SACCOs. For

example, Loan performer (Uganda) was designed for microfinance institutions and

automates loan and savings processes. Mifos X (open source) this is a global

microfinance platform that provides modules for savings, accounting and reporting.

Musoni (Kenya) is a cloud-based system integrating mobile money for loan

disbursement and repayment.

Although these systems provide advanced functionalities, many SACCOs in Uganda

find them either too complex or costly for their needs. Anyango (2022) emphasized that

locally customized systems are more sustainable for small and medium SACCOs.

Therefore, a tailored web-based loan tracking and management system for Ministry of

Finance Staff SACCO is both practical and affordable.

2.5 Challenges in manual SACCO Loan Management.

Manual SACCO systems face several challenges that negatively affect efficiency,

accuracy and transparency.

According to Kabugo (2024), "most SACCOs that continue to rely on paper-based

procedures experience delays in data entry, poor accountability and limited access to

real-time information" (p.27). Manual record-keeping increases the risk of human error

hence causing discrepancies loan balances and member contributions. Anyango (2022)

similarly observed that "manual registers and ledgers often produce inconsistent figures

due to duplication of entries or missing records," (p.43), which undermines

member confidence and audit reliability. Another major challenge is slow loan processing. The approvals that could be completed in minutes with digital systems often take days or even weeks. As Okech and Luyombya (2023) noted that "without automation, verification and approval processes remain bureaucratic and time consuming hence reducing institutional responsiveness" (p.58). Data loss is another challenge. The paper files are vulnerable to physical damage, misplacement or theft. Musiita et al. (2023) emphasize that "a single fire, flood or misplaced folder can erase years of financial information in a SACCO operating manually" (p. 126). These vulnerabilities make disaster recovery almost impossible without electronic backups. Furthermore, lack of real-time reporting limits decision making. Manual systems require periodic compilation of reports, often after the end of each month hence leading to outdated data. Kasozi and Mugisha (2021) argue that "decision-making in most traditional SACCOs is reactive rather than proactive because reports are generated long after transactions occur" (p.47). Therefore, manual loan management results in inefficiencies, inconsistencies and higher risks of financial misreporting. Automation through web-based systems mitigates these challenges by providing structured workflows, reliable data storage and instant reporting capabilities and thereby enhancing organizational transparency and member trust.

2.6 Advantages of web-based loan tracking and management systems.

Web-based systems provide SACCOs with modern solutions that improve efficiency, accuracy and transparency. According to Musiita et al. (2023), "web-based applications eliminate geographical barriers and allow users to access accurate, real-time financial information from any internet-enabled device" (p.127). This accessibility increases convenience for both administrators and members hence reducing the time required to process loan application and update records. Anyango (2022) observed that "online SACCO platforms enhance transparency because members can instantly verify their balances, repayments and loan approvals without relying on paper statements" (p.49). Automation therefore fosters accountability and member trust. Similarly, Kabugo (2024) explained that "integrating ICT in SACCO operations significantly improves reporting accuracy and operational speed by reducing manual interventions" (p.31). Web-based systems also offer secure data storage and minimize information loss. Kasozi and Mugisha (2021) emphasized that "digital databases supported by encryption and user authentication mechanisms protect financial data against unauthorized access and physical damage" (p.50). Security assurance increases institutional credibility and compliance with financial-sector regulations. Furthermore, such systems lower operational costs. Okech and Luyombya (2023) note that "open-source web frameworks enable SACCOs to automate key financial tasks without expensive proprietary software licenses" (p.210). Reduced administrative costs translate into more competitive loan rates and improved financial sustainability. Finally, Makoha (2019) concluded that "automated web-based loan systems provide timely reminders, reduce delinquency and enable accurate

forecasting of repayment trends" (p.53). In summary, web-based loan tracking systems deliver real-time access, cost savings, data security, transparency and operational reliability features that are essential for modern SACCO efficiency.

2.7 Related Studies about Loan Management Systems

Previous research supports the adoption of ICT in SACCO management. Makoha (2019) found that "automation reduces loan defaults by improving monitoring and follow-up" (p.54). Kabugo (2024) reported a "40 percent improvement record accuracy and processing speed among SACCOs using ICT tools" (p.29). Anyango (2022) observed that "user-friendly SACCO systems enhance member satisfaction and lower administrative burden" (p.47). Musiita et al. (2023) emphasized that "digital platforms improve transparency and accountability by minimizing manual errors" (p.130). Okech and Luyombya (2023) added that "digital transformation promotes good governance through automated audit trails and reporting" (p.212). These studies confirm the effectiveness of web-based systems in improving SACCO performance hence validating the need for a similar system at the Ministry of Finance Staff SACCO.

2.8 Research Gap.

Despite the progress in ICT integration, most existing systems address general and fail to address the specific needs of institutional or staff-based SACCOs. Anyango (2022) observed that "available SACCO systems lack customization features tailored to organizational workflows" (p.48). Kabugo (2024) also noted that "high costs and complex designs prevent smaller SACCOs from fully adopting automated solutions" (p.34). Musiita et al. (2023) emphasized that "limited customization in current financial systems restricts usability among small and medium SACCOs" (p.128). This study therefore seeks to fill that gap by developing a customized, affordable and user-friendly web-based loan tracking and management system specifically designed for the Ministry of Finance Staff SACCO.

2.9 Conclusion.

The reviewed literature reveals that SACCOs play a crucial role in Uganda's financial inclusion efforts. However, their dependence on manual systems hinders efficiency, accuracy and transparency. Studies consistently show that ICT-based systems improve reporting, enhance loan monitoring and strengthen data management. Despite the existence of digital tools, most of them are not suited to the operational structures of staff-based SACCOs. The proposed web-based loan tracking and management system will therefore provide a cost effective and efficient solution tailored to the Ministry of Finance Staff SACCO. It will build on lessons from the previous studies and contribute to Uganda's broader digital transformation in cooperative financial institutions.

RESEARCH METHODS

3. PROJECT METHODS

Introduction

This section outlines the methodology framework used to guide the design and development of the proposed Web-Based Loan Tracking and Management System for the Ministry of Finance Staff SACCO. It presents the research design adopted, data sources and collection techniques, system design approach, anticipated constraints and the ethical principles observed throughout the study. The methods described the aim to ensure that the system development process is systematic, reliable and aligned with the objectives of the study.

3.1 Research Design / Approach

The study adopts

the Design Science Research (DSR) approach which is also known as the Design Action Research (DAR) methodology which combines principles of design and action research to create and evaluate technological solutions that address real-world organizational problems (Hevner et al., 2004; Peffers et al., 2008). Design Science Research focuses on building and evaluating artifacts such as models, systems or prototypes that contribute both practical problem solving and academic knowledge. It is widely used in Information Systems research where the outcome is a functional system rather than purely theoretical findings. The DSR approach was adopted because: It enables the creation and building of a tangible artifact that is the web based system itself. The DSR enables the team to solve the real problem by directly addressing the inefficiencies of the manual loan processes with a practical technological intervention. The DSR allows building, testing and refining the web based system and to ensure that the system effectively meets user needs thus iterative improvement. Application of DSR steps to the study DSR stage Activity in this study

Objective	Addressed	Expected output
1. Problem identification and motivation.	Investigation of the challenge in the existing manual loan management process at the Ministry of Finance SACCO through interviews, observation and document review.	To analyze the current loan management system used by the SACCO. A detailed problem statement highlighting inefficiencies, data loss and delays in loan processing.
2. Definition of objectives for the solution.	Establishing goals and success criteria for the proposed system such as automation, data accuracy and easy tracking of member loans.	To determine system requirements and design objectives. A clear list of functional and non-functional requirements for the system.
3. Design and Development.	Designing system blueprints including ERD, DFD and user interfaces and developing a prototype using PHP, MySQL, HTML, CSS and JavaScript.	To design and develop a web-based loan tracking and management system. A functional prototype demonstrating database integration and user interface workflows.
4. Demonstration	Testing the system with selected SACCO administrators, loan officers and members to assess.	To evaluate system usability and functionality. User feedback and performance reports on how the system supports daily operations.
5. Evaluation	Comparing system performance against predefined objectives focusing on reliability	

, efficiency and user satisfaction. To verify whether the system meets the identified needs and objectives. A validated system with user acceptance evidence and evaluation metrics.

6 Communication

Compilation of project documentation, preparation of the proposal report and presentation to supervisors and examiners. To communicate research findings and system outcomes. Final project proposal, report and oral presentation for academic defense.

3.2 Project Organization (Client Information)

The team is working with the Ministry of finance SACCO which is under The Ministry of Finance. The system is going to be used by 1042 finance Staff members, A Credit officer who approves the loan, the manager in charge of carrying out the loan process and disbursing the loan to the Staff members or applicants.

3.3 Sources of Project Data

The project utilizes both primary and secondary data sources to gather relevant information for analysis, design and development of the proposed Web-Based Loan Tracking and Management System for the Ministry of Finance Staff SACCO. Primary refers to information collected at first-hand from original sources and it will be obtained directly from the organization through first-hand interactions with the SACCO employees and members, observation of the loan processes. The aim is to understand the current loan management workflow, identify weaknesses in the existing manual system and determine user requirements for the proposed solution. Secondary data refers to the information that has already been collected and published by other researchers. And secondary data will be obtained from existing sources such as organizational documents, online publications and reports related to digital financial management systems, SACCO automation and information system design. The combination of both data types ensures a strong foundation for requirement analysis and system development.

3.3.1 Requirement Elicitation

Techniques

Various techniques were used to guide the development of the proposed Web-based Loan Tracking and Management System for the ministry of Finance Staff SACCO. For example, interviews with SACCO managers and loan officers to capture operational challenges, observation of daily loan processing to understand workflow inefficiencies and questionnaires issued to members to obtain expectations on usability and accuracy. Document review of financial records, application forms and policy manuals provided additional insights. The combination of these techniques ensured that the system requirements collected were comprehensive, realistic and aligned with the SACCO's operational goals (Denis, Wixom, & Roth, 2020). Anyango (2022) puts it plainly: "combining multiple elicitation methods enhances the completeness and validity of system requirements." It's just true pulling from different sources always gives you a fuller picture.

3.4 System Analysis and Design Approach

The project adopts a Structured System Analysis and Design Approach (SSADA) to guide the development of the Web-Based Loan Tracking and Management System

for the Ministry of Finance Staff SACCO. The structured approach emphasizes a systematic, step-by-step process for understanding user requirements, analyzing system components and transforming them into a well-defined design. It involves the use of tools such as Data Flow Diagrams (DFDs), Entity Relationship Diagrams (ERDs) and System Flowcharts to clearly model how data moves through the system and how different components interact. This approach was selected because it provides clarity consistency and logical organization in system development. It helps to break down complex SACCO operations into manageable modules such as member registration, loan application, approval and repayment tracking. This approach reduces redundancy, enhances data accuracy and ensures that every process is traceable from input to output. It supports effective documentation hence making the system easy to maintain and upgrade over time. And this approach is especially suitable for financial systems that require precision, data integrity and accountability. Since SACCO operations involve sensitive financial records, the structured approach ensures that workflows are well-documented and securely handled. Its emphasis on early analysis and design before coding minimizes errors, shortens development time and ensures that the system meets user expectations and regulatory requirements (Dennis, Wixom, & Roth, 2020).

3.4.1 Design Techniques.

This project adopts the Prototyping Method as the primary design and development technique for the Web-based Loan Tracking and Management System for Ministry of Finance Staff SACCO. Prototyping involves creating preliminary versions of the system known as prototypes that are continuously refined based on user feedback. This iterative process allows early visualization system features, ensures user involvement and facilitates the identification of errors before full implementation. During development, low-fidelity prototypes such as interface sketches and wireframes will first be designed to illustrate the basic structure and layout of the system.

These will later evolve into high-fidelity prototypes developed using tools like PHP, HTML, CSS, JavaScript and MySQL. This approach ensures that the users especially the SACCO managers, loan officers and members can interact with the evolving system, test its functionality and also suggest improvement at each stage. This prototyping technique was chosen because it improves user-centered design, enhances communication between developers and end-users and also reduces the risk of system rejection. It is effective for financial systems where user needs are specific and the processes must be validated for accuracy and compliance. Continuous user feedback throughout prototype iterations ensures that the final system is functional, reliable and aligned with the organizational requirements (Babu, Arulanand, & Chandran, 2020).

3.5 Anticipated Project Constraints

I. The project may be affected by limited time as the project must be completed in a short time that is by the end of the academic semester, leaving minimal room for extensive revisions and testing. However the team plans to work in time and submit in time.

II. The project may be hindered by the limited data access to the Ministry of Finance SACCO financial

records since most of the information is confidential and restricted for privacy and security reasons. The team plans to use the available resources and the Ministry of Finance website to acquire the information needed.

III. The project may be affected by technical issues such as unstable internet connectivity, software compatibility problems and limited computing resources may disrupt development activities. However the team plans to purchase internet bundles to improve on the internet connectivity.

IV. The project may be affected by the limited budget as there may be inadequate funds for system hosting, printing and other essentials. The team plans on using affordable hosting sites. Despite these challenges, careful planning, prioritization of tasks and resource optimization will help to ensure that the project objectives are successfully achieved (Kabugo, 2024).

3.6 Ethical Considerations

The study observes strict ethical standards throughout the design and implementation of the Web-Based Loan Tracking and Management System for the Ministry of Finance Staff SACCO. Informed consent is obtained from all participants ensuring that everyone involved fully understands the purpose of the study and voluntarily agrees to share the information. Confidentiality is maintained by anonymizing the sensitive SACCO and member data while data protection measures like such as encryption and authentication are employed to safeguard stored information. The research upholds integrity by ensuring that all findings are original, verifiable and free from plagiarism. Proper acknowledgement is given to all sources and contributions following the APA 7th edition citation guidelines. As emphasized by Hevner et al. (2004), ethics are non-negotiable in ICT research and play a vital role in protecting both the organizations involved and the individuals contributing to the study.

3.8 Timeline and Milestones

The project is planned to run over a sixteen-week academic period, divided into specific phases to ensure systematic progress and timely completion. During week 1-2, the focus is on topic approval and supervisor allocation to confirm project alignment with institutional requirements. Week 3-5 are dedicated to data collection and requirement analysis to establish user and system needs. The design phase takes place in weeks 6-8, where the system models such as Entity Relationship Diagrams (ERDs) and Data Flow Diagrams (DFDs) are developed. Weeks 9-12 cover system development and testing, involving prototype creation, coding and validation of functionalities. The final phase, weeks 13-16 focuses on documentation, report writing and submission of the final proposal and presentation. This schedule ensures that each project activity is properly managed and completed within the semester timeframe (Dennis, Wixom, & Roth, 2020). A Gantt Chart showing the timeline of the Project Submission Documentation System development and Testing System Design Data Collection Requirement Analysis Literature review Background Study Topic Approval Supervisor Allocation

Activity	Start	End
Topic Approval	0	2
Supervisor Allocation	2	4
Background Study	4	6
Literature review	6	8
System Design	8	10
Data Collection	10	12
Requirement Analysis	12	14
System development and Testing	14	16
Documentation	16	18
Submission	18	20

3.9 Disclosure and Declaration

The research team declares the responsible and ethical use of digital and

artificial intelligence tools throughout the execution of this project. Tools such as Grammarly, Google Scholar and ChatGPT were only used to improve grammar, citation accuracy and literature search. All the analysis, system design, coding and report writing were independently carried out by the research team under the supervision of assigned lecturer. The team upholds academic integrity and ensures that AI tools are applied only as assistive resources in accordance with Makerere University's research and ethical guidelines. And there are no conflicts of interest associated with this project. For it is purely conducted for academic purposes and not for personal or commercial benefit. The final report will include a SharePoint or GitHub link containing the system source code, databases and documentation for verification. This clarification confirms that all work presented is original, ethical and undertaken in full compliance with university standards.

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r>APPENDIX I: PROJECT BUDGET
Resource
type

Description

Quantity

Unit cost

Total
Cost

Software Used

JavaScript,

HTML,
PHP,

CSS

1

Free

Free

Hardware

R
requirements

Laptops

for

development

2

Personally

owned

Personally

owned

Data

>Collection

Google
forms

designed

questionnaires

1

Free

F
ree

Logistics

Transportation

to school
and

other meeting

sites

5
visits

20000

100000

Hosting

Cloud
hosting

1

100000

100000

Stationery
and

Printing

Printing

demonstrational

proposa
ls

5

1000

5000

Other

Expenses

I
nternet

Bundles (Airtel

monthly
data

bundles)

2
Months

10000

20000

Refreshments

during

>Meetings

2 meetings

20000

40000

Total
Estimated Cost

265000

APPENDIX II: DATA COLLECTION
TOOLS

How do you currently track and manage loans?

What are
the biggest challenges you faced with the current method of loan
tracking?

On average, how much time per week is spent on manual
tasks related to loan

management?

How often do you need to
generate reports on loan status, collections?

Do you currently use
any other related software?

Which core functions are absolutely
critical for the new system to perform?

What types of alerts are
most important to receive from the system?

What key data fields
must be captured for every loan?

Which roles will need to access
the system?

Which devices will primarily be used to access the
system?

APPENDIX III: SCHEDULE OF ACTIVITIES/ GANTT CHART

A
Gantt Chart S howing The Schedule Of
Activies

Submission

Documentation

System development
and Testing

System Design

Data
Collection

Requirement Analysis

Literature
review

Background Study

Topic Approval

Supervisor
Allocation

0
2

4

6

8

10

12

14

16

18

Start Duration

APPENDIX IV: CREDIT MANUAL OF MINISTRY
OF FINANCE SACCO

HIGHLIGHTING THE LOAN PROSSESSESS

