

FACULTY: Faculty of Information Computing Information Management (FOCIM).

COURSE: Bachelor in Science Information Security and

Forensics (BISF)

SYSTEM REQUIREMENT SPECIFICATION

UNIT CODE: BISF 2208

UNIT NAME: Security and Forensics Project

REG NO: 21/04914

PROJECT: CFF Church Management System.

NAME: Muthama Mumo

SUPERVISOR NAME: Merab Omondi

Table of Contents

| 1. | introduction section | 1 |
|----|---|----|
| | 1.0. Purpose of the SRS | 1 |
| | 1.2 Intended Audience for the SRS | 1 |
| | 1.3 Scope | 2 |
| | 1.3.1 What the system will do | 2 |
| | 1.3.2 What the System Will Not Do | 4 |
| | 1.4 System Benefits and Objectives | 4 |
| | 1.5 Definitions, Acronyms, and Abbreviations | 5 |
| | 1.5.1 Acronyms and Abbreviations: | 5 |
| | 1.6.Overview of the SRS Document: | 6 |
| | 1.6.1 Organization of the SRS | 6 |
| 2. | General Description | 7 |
| | 2.1 System Perspective: | 7 |
| | 2.1.1 Principal External Interfaces | 7 |
| | 2.1.2 Hardware and Peripheral Equipment | 8 |
| | 2.1.3 Block Diagram: | 8 |
| | 2.2 System Functionality | 10 |
| | 2.2.1.User login | 10 |
| | 2.2.2.Member Management: | 10 |
| | 2.2.3.Member Information Access: | 10 |
| | 2.2.4.Financial Management: | 11 |
| | 2.2.5.Birthday Celebration Facilitation: | 11 |
| | 2.2.6.Teen and Sunday School Management: | 11 |
| | 2.2.7.Visitor Engagement: | 11 |
| | 2.2.8.Event Coordination: | 11 |
| | 2.2.9.The system may allow the administrator to edit/erase user records | 12 |
| | 2.2.10.User Support: | 12 |
| | 2.3 User Characteristics | 12 |
| | 2.3.1 Church Administrators: | 12 |
| | 2.3.2 Church Members: | 13 |

| 2.4 General Constraints | 13 |
|--|----|
| 2.4.1.Regulatory Policies: | 13 |
| 2.4.2.Hardware Limitations: | 13 |
| 2.4.2.Safety and Security Considerations | 14 |
| 2.5 Assumptions and Dependencies | 14 |
| 2.5.1.Assumptions: | 14 |
| 2.5.2.Dependencies | 15 |
| 3.0 Specific Requirements | 16 |
| 3.1 Functional Requirements | 16 |
| 3.1.1.Authentication | 16 |
| 3.1.2.Authorization level | 16 |
| 3.1.3.Web browser | 16 |
| 3.1.4.Network services | 16 |
| 3.2 Inputs and Outputs: | 16 |
| 3.2.1.Member Registration (Input): | 16 |
| 3.2.2.Financial Contributions (Input): | 16 |
| 3.2.3.Event Scheduling (Input): | 17 |
| 3.2.4.Member Data Updates (Input): | 17 |
| 3.2.5.Financial Reports (Output): | 17 |
| 3.2.6.Member details(output) | 17 |
| 3.3.Processing | 18 |
| 3.4.non-functional requirements | 18 |
| 3.4.1 Reliability | 19 |
| 3.42 Availability | 19 |
| 3.4.3 Security | 19 |
| 3.4.4 Maintainability | 20 |
| 3.4.5 Portability | 20 |
| 3.5 User Interface Requirements | 21 |
| 3.5.1User Interface Design: | 21 |
| 3.5.2.Forms | 22 |
| 3.5.3.Hardware Interfaces: | 23 |
| 3.5.4.Software Interfaces: | 24 |
| 3.5.5.Other Requirements: | 24 |

| 4. Appendices | 24 |
|---------------------------------------|----|
| 4.1.Survey Results: | |
| 4.2.Sample Data: | 25 |
| 4.2.1.Sample Data for Document Review | 25 |
| 4.2.2.Sample Survey Questions | 26 |
| 4.2.3.Sample Interview Questions: | 28 |
| 4.2.4.Observation Record | 29 |

Introduction

1. introduction section

1.0. Purpose of the SRS

The purpose of the SRS for the CFF Management System is to provide a comprehensive and detailed document that serves as the primary reference for the design, development, and testing of the system. It aims to

- 1. Clearly define the system's functionalities, features, and behavior, ensuring that all project stakeholders have a shared understanding of what the system will deliver.
- 2. Specify the system's scope, constraints it will operate under, and the limitations it may have.
- 3. Serve as a foundation for the design and development phases by outlining the system's requirements, including functional, non-functional, and performance requirements.
- 4. Provide a basis for conducting testing and validation, enabling quality assurance and compliance with project goals and objectives.
- 5. Facilitate effective project management by serving as a reference for project planning, monitoring, and tracking of progress.
- 6. Serve as a communication tool for all project stakeholders, ensuring that everyone involved in the project, including developers, designers, project managers, and other team members, shares a common understanding of the system's objectives and functionality.

1.2 Intended Audience for the SRS

The SRS for the CFF Management System is primarily intended for the following audience:

1. Application Designers and Developers

Application designers and developers will rely on the SRS to understand the functional and technical requirements of the system. It will guide them in creating the system's architecture,

design, and code to ensure that it aligns with the documented specifications. They will use it as a reference throughout the development process to build a system that meets the defined criteria. 2.

2. Project Managers:

Project managers will use the SRS as a key document for project planning, scheduling, and monitoring. It will help them ensure that the project stays on track, meets its objectives, and adheres to specified requirements. The SRS will also assist in resource allocation and risk management.

3. Quality Assurance and Testing Teams:

QA and testing teams will rely on the SRS to develop test plans and test cases that verify the system's compliance with stated requirements. It will serve as a benchmark for conducting testing, verification, and validation activities, ensuring the system functions as intended.

4. Business Stakeholders and End Users:

Business stakeholders and end users may also reference the SRS to gain an understanding of the system's expected functionality and behavior since the document may contain technical details, it can be used to communicate high-level expectations and benefits to these stakeholders.

1.3 Scope

System to be Produced

The CFF Management System is a comprehensive digital solution tailored specifically for the Christian Foundation Fellowship (CFF) Church. It is designed to enhance and modernize the church's administrative and operational processes, promoting efficiency, transparency, and community engagement.

1.3.1 What the system will do

The CFF Management System will have the following key functions:

1. Membership Management:

- Facilitate member registration, enabling the addition of new members, deleting existing members and updates to existing member records.
- Securely store member details, ensuring accuracy and up-to-date profiles within the system.
- Provide self-service features that allow members to access and update their personal information, fostering engagement within the church community.

2. Financial Transparency:

- Accurately record financial transactions, including offerings and tithes with transaction IDs.
- Printing of the financial transactions if needed
- Expedite the generation of comprehensive financial reports to assess financial health and plan budgets.

3. Event Coordination:

- Streamline the scheduling and coordination of church events, ensuring that events are accurately communicated including the venues
- Display the event outcomes to the members

4. Birthday Celebration Facilitation:

- Automatically identify and display upcoming member birthdays, facilitating timely acknowledgment and celebration.
- Foster a sense of belonging and connection within the church community.

5. Teen and Sunday School Management:

 Facilitate teen and Sunday-school registration, updating the information, deleting, searching and printing the information.

6. Visitor Engagement:

 Capture visitor contact information and visit details for effective follow-up and integration into the church community.

1.3.2 What the System Will Not Do

The CFF Management System will not:

- Process actual financial transactions, such as handling money or online payments.
- Provide direct spiritual guidance, counseling, or pastoral services to members.
- Allow visitors direct engagement with system
- Allow teens to engage directly with system
- Manage or deliver theological content, sermons, or religious teachings.
- Physically execute events or provide event-related services, such as catering or venue setup.
- Facilitate personal counseling sessions or confessionals.
- Interpret religious texts, doctrines, or theology.

1.4 System Benefits and Objectives

Main objective

The new CFF Management System is designed with a clear set of objectives aimed at enhancing the overall efficiency, communication, and management of Christian Foundation Fellowship (CFF) Church's operations. These objectives are aligned with the system's scope and functionality, ensuring that they are realistic and attainable within the system's capabilities.

Other primary benefits and objectives of the CFF Management System are:

• To optimize the administrative and operational processes of the CFF Church, making them more efficient and accurate.

- To promote transparency and accountability in financial management.
- To foster a sense of community and belonging among church members through features like automated birthday celebrations.
- To streamline the management of church events, enhancing planning and execution.
- To capture details of church for proper record keeping
- To provide church leadership with comprehensive financial reports to make informed decisions and plan budgets.
- To ensure that all members have easy access to their personal information and can actively participate in church activities.

1.5 Definitions, Acronyms, and Abbreviations

Terms:

- 1. **CFF Management System-** Refers to the Christian Foundation Fellowship Management System, the digital solution developed for the CFF Church.
- 2. **SRS** (**Software Requirements Specification**) A document that outlines the detailed requirements and scope of the CFF Management System.
- 3. **Church Management System -** A software application designed to assist religious institutions in managing their administrative and operational processes efficiently.
- 4. **Scope -** he extent of features and functionalities that the CFF Management System will encompass.
- 5. **Stakeholder -** Individuals or groups with an interest in the CFF Management System, including church administrators, members, developers, and project managers.

1.5.1 Acronyms and Abbreviations:

- **CFF** Christian Foundation Fellowship
- **SRS** Software Requirements Specification
- **QA -** Quality Assurance
- **IT** Information Technology
- **API** Application Programming Interface

- GUI Graphical User Interface
- **CPU** Central Processing Unit
- DNS Domain Name System
- HTTPS Hypertext Transfer Protocol Secure
- SQL Structured Query Language
- **UI** User Interface
- **UX** User Experience

1.6. Overview of the SRS Document:

The Software Requirements Specification (SRS) document outlines the comprehensive scope and specifications for the Christian Foundation Fellowship (CFF) Management System. It serves as a detailed reference document for the design, development, and testing of the system. The SRS provides a clear and shared understanding of the system's objectives, functionality, and constraints.

1.6.1 Organization of the SRS

The SRS is structured into several key chapters, each addressing specific aspects of the CFF Management System:

1.6.1.1 Chapter 1 - Introduction:

- Defines the purpose and intended audience of the SRS.
- Outlines the scope, defining what the system will do and what it will not do.
- Describes the system benefits and objectives.
- Gives meaning of acronyms and abbreviation that appear in SRS

1.6.1.2 Chapter 2 –general description

• State if system is stand alone or distributed

- Describes function of each component and interphases
- Gives overview of external interphases of system and equipment to be used
- Block diagram showing components of system
- Describes functions of the system
- Outlines system users and characteristics of them
- Gives specific user requirements
- Gives regulation policies and safety and security considerations of the system
- Outline of assumptions made about the system

1.6.1.3 Chapter 3 - System Requirements:

- Lists and describes the functional and non-functional requirements of the system.
- Describes processing of input data and methods used to transform input to outputs
- Identifies the user interphase requirements and other requirements

1.6.1.4 Chapter 4 - Appendices:

 Contains supplementary information such as additional supporting documentation and results from research

2. General Description

2.1 System Perspective:

The CFF Management System is primarily a self-contained system, designed to operate as a standalone application tailored specifically for the Christian Foundation Fellowship (CFF) Church. While it does not function as part of a larger system, it integrates various modules to streamline church operations efficiently.

2.1.1 Principal External Interfaces

• User Interfaces (UI): The system will feature user interfaces accessible by church administrators, and members These interfaces will be web-based for easy access and interaction.

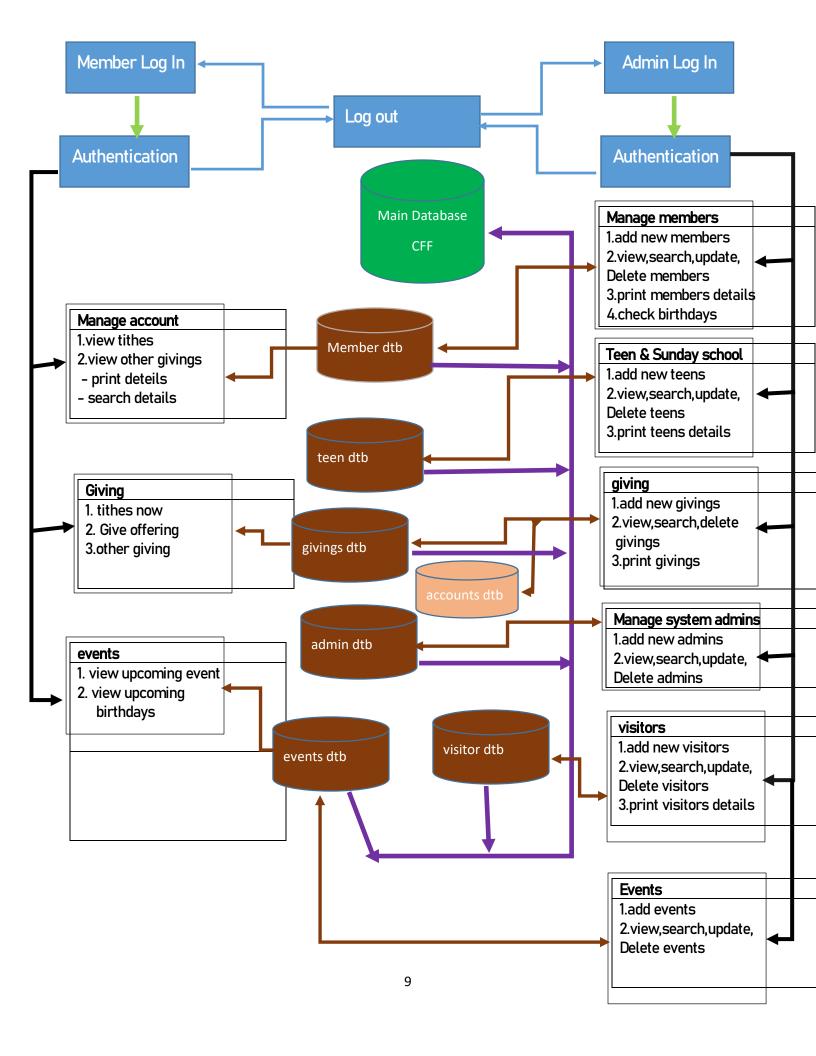
- **Database Interface:** The system will interface with a database to store and manage member details, financial records, and other relevant information securely.
- Communication Interfaces: The system will display events

2.1.2 Hardware and Peripheral Equipment

- **Servers:** The system will require a server infrastructure to host the application and database securely. These servers may be cloud-based or on-premises.
- **Client Devices:** Users will access the system through various client devices, including desktop computers, laptops, tablets, and smartphones.
- **Internet Connection:** A reliable internet connection is essential for the system to ensure seamless data exchange and communication.
- **Peripheral Devices:** While not directly integrated into the system, peripheral devices like printers and barcode scanners may be used in conjunction with the system for specific tasks, such as generating reports and tracking attendance.

2.1.3 Block Diagram:

.



2.2 System Functionality

The CFF Management System is designed to perform a wide range of functions to streamline and enhance the operations of the Christian Foundation Fellowship (CFF) Church. The system's functionality is described in detail as follows:

2.2.1.User login

- The system should allow users to login to their account
- Sequence of operation: User must type in Username and Password in the Corresponding text fields
- User must click on the Login button
- Valid checks: User must login with the correct Username and Password
- Output : If "LOGIN" is selected, then verify and continue to the users menu
- Error handling: If user id and/or password are incorrect, then display an Error message.

2.2.2.Member Management:

- Registering Members: The system allows church administrators to register new members by entering their personal details, including name, contact information, and other relevant information.
- Updating Member Details: Administrators can update, .view, search, delete, and edit member profiles as needed, ensuring accurate and up-to-date records
- The system can print member details

2.2.3. Member Information Access:

After correct login members can

- Change their password, profile picture, and logout
- Members can access their giving details, view near events and upcoming events, view upcoming birthdays, print their giving details and search for specific details concerning giving.

- They can olso update their member details
- They can also log out of the system
- In any operation the system will display an alert confirmation message to confirm the operation to be done

2.2.4. Financial Management:

- Recording Offerings: The system provides a secure platform for members to record their offerings and donations. Transaction IDs are assigned to offerings, tithes or other giving
- Financial Reporting: The system generates comprehensive financial reports, summarizing total giving and financial health.

2.2.5.Birthday Celebration Facilitation:

 The system automates the identification of upcoming member birthdays. It dispalys to other members event of birthday of another member

2.2.6.Teen and Sunday School Management:

- Church administrators can effectively manage and organize activities related to teen and Sunday school classes by adding their details to the system and updating them if need be and they can also print their records incase a copy is needed
- If specific search is needed in the details the system also offers search logarithms

2.2.7. Visitor Engagement:

- The system facilitates the seamless management of visitors by capturing their contact information and visit details.
- Administrators can also perform operations like delete, update, search and print on data

2.2.8.Event Coordination:

 Church administrators can efficiently plan events adding the name of event, date and description of the event

2.2.9. The system may allow the administrator to edit/erase user records.

- The system may allow the administrator to edit/erase user records
- The administrator clicks on the edit/delete user records button
- The system brings up the edit/erase user records screen

2.2.10.User Support:

- The system provides user support in the form of guides, assisting members,
 administrators in making enjoyable user experience.
- It will show the suggested inputs to put in each field and will include autofill functionalities

2.3 User Characteristics

The CFF Management System, each user category has unique characteristics, expectations, and requirements. Here is an outline of the system users, their general characteristics, and specific user requirements:

2.3.1 Church Administrators:

- General Characteristics:
 - Typically experienced and long-standing members of the church.
 - Familiar with church operations, policies, and processes.
 - May have basic to intermediate technical proficiency.
- Specific User Requirements:
 - Require comprehensive access to all system functionalities for managing member information, financial records, events, and communications.
 - Need the ability to generate reports and analytics for decision-making and planning.
 - Seek tools for efficient event coordination and visitor management.
 - Value data security and access controls to protect sensitive church information.

2.3.2 Church Members:

- General Characteristics:
 - Diverse educational and technical backgrounds.
 - May vary in their familiarity with technology.
 - Range from long-standing members to newcomers.
- Specific User Requirements:
 - Expect user-friendly interfaces for updating their personal information and accessing event schedules.
 - Need automated birthday reminders and acknowledgment features.
 - Value the ability to record their offerings and view financial statements.
 - Seek access to event notifications and member communication tools.

2.4 General Constraints

The development and operation of the CFF Management System are subject to various constraints, including regulatory policies, hardware limitations, and safety and security considerations. Here are the general constraints that must be considered:

2.4.1.Regulatory Policies:

- Access Control Policies: The system must adhere to access control policies defined by the church to regulate who can access, modify, or delete data within the system. This includes setting user roles, permissions, and authentication procedures.
- Data Privacy Regulations: The system must comply with data privacy regulations and safeguard sensitive member and financial information. This includes ensuring data encryption and secure storage practices.

2.4.2. Hardware Limitations:

 System Resource Requirements: The system's hardware requirements, including server capacity and storage, must be carefully evaluated and provisioned to accommodate the anticipated data volume and usage patterns.

- Compatibility Constraints: The system must be compatible with the church's existing
 hardware and peripheral equipment, ensuring seamless integration with devices such as
 computers, printers, and mobile devices.
- Scalability Considerations: As the church grows, the system must be able to scale to meet increased demand without compromising performance or data integrity.

2.4.2. Safety and Security Considerations

- Data Security: The system must prioritize data security, implementing encryption
 protocols and access controls to protect sensitive member and financial data from
 unauthorized access or breaches.
- *Disaster Recovery:* A robust disaster recovery plan must be in place to safeguard data in the event of system failures, natural disasters, or other unforeseen circumstances.
- User Training and Awareness: Users, particularly administrators, must undergo training on system security best practices to prevent data breaches and maintain the system's integrity.
- Physical Security: The physical servers hosting the system must be located in a secure and controlled environment to prevent unauthorized access or physical damage.

2.5 Assumptions and Dependencies

In the development of the CFF Management System, certain assumptions and dependencies are made based on background information about the organization, its users, and the general environment. Here are the key assumptions and dependencies:

2.5.1. Assumptions:

- User Technical Proficiency: It is assumed that users, including church administrators
 and members, have at least basic technical proficiency to interact with the system.
 Training and user support will be provided, but an initial level of digital literacy is
 expected.
- 2. **Data Accuracy:** The system assumes that data entered and edited by users, such as financial transactions, their details is accurate and valid. While the system includes data validation mechanisms, it relies on users to provide correct information.

- 3. **Stable Internet Connectivity:** The system assumes that users have stable internet connectivity when accessing the system, whether from their own devices or church-provided resources. System responsiveness may be affected by the quality of the internet connection.
- 4. **User Training:** It is assumed that user training will be provided to familiarize administrators, members with the system's features and functionality. This training is essential for effective system adoption.
- 5. **Regulatory Compliance:** The system assumes that the church has policies and procedures in place to comply with regulatory requirements, such as data privacy and financial reporting standards. The system will align with these policies.
- 6. it also assumes that all users have acess to technological gargets such as phone or tablet or any other related .

2.5.2.Dependencies

- 1. **Hardware and Infrastructure:** The system is dependent on the availability and proper functioning of the required hardware and infrastructure, including servers, storage devices, and network equipment.
- 2. **Data Backup and Recovery:** Effective data backup and recovery solutions are essential dependencies. The system relies on these mechanisms to ensure data integrity and availability in the event of system failures or data loss.
- User Adoption: The successful adoption of the system depends on users' willingness to
 engage with and utilize the platform. User acceptance and engagement are critical to the
 system's effectiveness.
- 4. **Regulatory Compliance:** The system is dependent on the church's commitment to maintaining compliance with relevant regulations and policies, including data privacy and financial standards. Any changes in regulations may impact system functionality.
- 5. **Timely System Maintenance:** Regular system maintenance and updates are necessary for ensuring system performance, security, and functionality. The system is dependent on timely maintenance efforts.

3.0 Specific Requirements

3.1 Functional Requirements

3.1.1.Authentication

For the users who are using the system they will require to be authenticated and the system will have a robust authentication to maintain the integrity of the system.

3.1.2. Authorization level

The different users of the system will require different level of privileges the system will enable.

3.1.3.Web browser

A web browser will help facilitate the operation between the system and the database to which it is attached

3.1.4. Network services

On the server end the system will require to ensure that the network is always up so that the systems can be available at all times when the users need it

3.2 Inputs and Outputs:

3.2.1.Member Registration (Input):

- o Source: Church administrators and members.
- o Destination: Member database.
- o Quantity: One member record at a time.
- Units of Measure: N/A.
- o Range of Valid Inputs: All required member information, including name, residence, birthday dates, contact details.

3.2.2. Financial Contributions (Input):

- o Source: Church members and administrators.
- o Destination: accounts database.
- o Quantity: Variable.
- o Units of Measure: Currency.

o *Range of Valid Inputs:* Positive numerical values for tithes, offering giving and any other type of contributions.

3.2.3.Event Scheduling (Input):

o Source: Church administrators.

o Destination: Event database

o Quantity: Variable.

o *Units of Measure:* N/A.

o Range of Valid Inputs: Event name, details and date.

3.2.4. Member Data Updates (Input):

o Source: Church members.

o Destination: Member database.

o Quantity: One member record at a time.

o Units of Measure: N/A.

 Range of Valid Inputs: Member data updates, including changing password, changing picture and update their details.

3.2.5. Financial Reports (Output):

o Source: Financial records.

o Destination: Church administrators.

o Quantity: As requested.

o *Units of Measure:* Currency.

o Range of Valid Outputs: printing financial statements and reports.

3.2.6.Member details(output)

o Source: member records.

o *Destination:* Church administrators.

o Quantity: As requested.

o Units of Measure: N/A.

o Range of Valid Outputs: printing member information.

3.3.Processing

1. Validation of Input Data

 The system should validate input data to ensure that required fields are filled, data formats are correct, and that it adheres to predefined rules and constraints

2. Exact Sequence of Operations:

The exact sequence of operations will vary based on the specific functionality, such as member registration, financial contributions, or event scheduling. Detailed flowchart diagrams will be created to illustrate these sequences.

Responses to Abnormal Situations:

1. Validation Errors:

- In case of validation errors during data input, the system will display alert messages indicating the nature of the error and how to rectify it.
- If the admin or member is to delete anything the system displays a confirmation message alert.

2. Data Integrity Issues:

• If data integrity issues are detected (e.g., duplicate member records), the system will provide notifications and guidance on resolving the issues and correction

3.4.non-functional requirements

There are a number of attributes of software that can serve as requirements. Below are quite good number of them and measures that have been put in place to ensure that they are well mitigated. By handling them and since they have been put into consideration the performance of the system will be greatly improved.

3.4.1 Reliability

To ensure that the system is reliable a number measurers will be put in place.

- a) Use of a language that has minimal failure rate.
- b) Perform unit integration testing.
- c) Perform entire integration testing.
- d) Perform a performance testing.

3.4..2 Availability

System availability is the probability a system is functioning when needed to, under normal operating conditions.

There are several factors that will ensure that availability of a system is maintained.

The following are the three qualifications will be met for the system to be available at all times:

1. Functioning equipment

the maintenance team will ensure that they maintain the system in good time so that there is no time the system is of service for repairs or inspections

2. under normal conditions

for this the purpose will be to unsure that the system operates in an ideal setting at the expected rate

3. Functioning when needed

at all time the operation of the system will be up and operating in the scheduled production scheduled.

3.4.3 Security

To ensure that the system is protected from those that would mean to harm it by either accidental or malicious access, use, modification, destruction, or disclosure. Specific requirements to be set in place in this area will include:

- Establishment of Identity Upfront
- Keeping specific log or history data sets
- Assigning certain functions to different modules

- Restricting communications between some areas of the program
- Checking data integrity for critical variables
- Protecting the Database From SQL Injection

3.4.4 Maintainability

To ensure that the system is easily maintainable the development team will ensure that the following factors are kept in the development process.

- a. Keep unit interfaces small.
- b. Separate concerns in modules.
- **c.** Couple architecture components loosely-Top-level components of a system that are more loosely coupled are easier to modify and lead to a more modular system.
- d. Development team will focus on Writing a clean code will make the system easily maintainable

3.4.5 Portability

To make this system portable, several measures have been involved. These include:

- All the code used in this software will be inbuilt and well protected thus easily portable.
- Development will be done within PHP programming language.
- This system will be developed using windows OS.

The following is the rating of these requirements for the system. They are rated in the scale of 1-12 where 12 is the best and 1 is the least.

- H- Stands for high
- M- Stands for medium
- L- Stands for low

Below being the performance rate.

| ID | Characteristic | H/M/L | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|----|----------------|-------|---|---|---|---|---|---|---|---|---|----|----|----|
| 1 | Correctness | Н | | | | | | | | | | | | |

| 2 | Efficiency | M | | | | | | |
|----|--------------------|---|--|--|--|--|--|--|
| 3 | Flexibility | M | | | | | | |
| 4 | Integrity/Security | Н | | | | | | |
| 5 | Interoperability | M | | | | | | |
| 6 | Maintainability | Н | | | | | | |
| 7 | Portability | Н | | | | | | |
| 8 | Reliability | Н | | | | | | |
| 9 | Reusability | L | | | | | | |
| 10 | Testability | M | | | | | | |
| 11 | Usability | Н | | | | | | |
| 12 | Availability | L | | | | | | |

3.5 User Interface Requirements

User interface design is a crucial aspect of the CFF Management System. It includes forms, reports, web pages, and hardware and software interfaces that enable users to interact with the system. Here are the specific user interface requirements:

3.5.1User Interface Design:

3.5.1.1 Login Interface

In this interface, there will be 2 text fields which are namely username and password and a login button. The user must be a registered member of the church. If user doesn't have an account, he/she will not be able to access site until his records are captured by the admin and this will require him to physically attend the church until enough basis for his membership are established

3.5.1.2Main Interface

In this interface, there will be a section which contains all the information related to the user and and events of the church. This is where the user can view his details including recording his givings

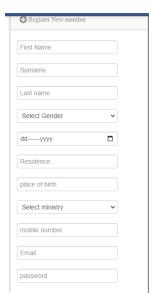
3.5.1.1 User Profile Interface

Profile interface is a sub-interface which can be reached from main interface. User will use this interface to edit his/her profile information and logout.

3.5.2.Forms

These will be used to capture details

3.5.2.1.Member Registration Form:



Admin will input

- 1.member first, surname, last name
- 2.select gender
- 3.birthday date
- 4.residence
- 5. mobile number
- 6. email and
- 7.login password

3.5.2.2. Financial Contribution Form:



User will enter

- 1. Amount
- 2. Transaction code
- The system will autofill date

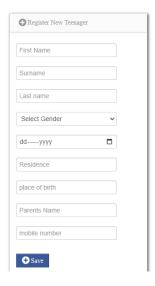
3.5.2.3. Event Scheduling Form:



Administrators will enter

Title of event
date of event
description of the event

3.5.2.4.Teen data form



Admin will input

1.teens first, surname, last name

2.select gender

3.birthday date

4.residence

5. parents mobile number

6. parents name

3.5.3. Hardware Interfaces:

- The CFF Management System will be designed to operate on standard PC hardware, including:
 - o Minimum RAM: 4GB
 - o Processor Speed: 2.0 GHz or higher
 - o Free Disk Space: 20GB or more

3.5.4. Software Interfaces:

The system will run on a Windows-based operating system (e.g., Windows 10) and be
developed using web technologies (HTML, CSS, JavaScript, PHP) for cross-platform
compatibility. It will use a back-end database system, such as phpmyadmin SQL Server
or to store and manage data.

3.5.5.Other Requirements:

- **Frequency of Use:** The system will be used daily for member management, financial tracking, and event scheduling. Some functionalities, such as financial reporting, may be used on a weekly or monthly basis.
- Accessing Capabilities: Users will access the system via web browsers on their devices, including desktop computers, laptops, tablets, and smartphones.
- Static and Dynamic Organization: The user interface will have a static structure for forms and reports, while the database and data organization will be dynamic, allowing for updates and changes in member information, financial records, and event details.
- Retention Requirements for Data: Member data, financial records, and event details
 will be retained for historical purposes. Data retention policies will be established in
 compliance with relevant regulations.

4. Appendices

The appendices contain supporting materials to provide readers with additional context, data, and information related to the CFF Management System. These materials are intended to enhance the understanding of the system and its requirements. The appendices will include:

4.1. Survey Results:

During the research phase, surveys were conducted to understand the expectations and preferences of CFF Church members, including both regular members and teens.in narrative form these were the conclusions

User Satisfaction: A significant portion of respondents expressed satisfaction with the church's services but noted room for improvement in administrative processes.

Communication Preferences: The majority of respondents indicated a preference for more digital communication methods, such as email or a church app, to receive updates, event notifications, and announcements.

Ease of Member Registration: A common concern raised was the time-consuming and errorprone member registration process. Respondents emphasized the need for a simplified and digital registration method.

Financial Transparency: Users highlighted the importance of transparent financial reporting. They expressed the desire for an efficient system that accurately tracks contributions and generates financial reports.

Event Planning: Members and teens showed interest in an event management system that allows for online event registration, easy access to event details, and notification alerts.

Teen and Sunday School: Parents and guardians shared their interest in a system that provides better tracking of teen and Sunday school attendance and more streamlined communication with instructors.

4.2.Sample Data:

4.2.1.Sample Data for Document Review

Membership Records

Member Name: John Doe

Membership ID: CFF1001

Contact Information: john.doe@email.com, +1-123-456-7890

Membership Type: Regular

Joining Date: 2020-05-15

Financial Reports:

Report Title: Annual Financial Statement - 2022

Report Date: 2022-12-31

Total Offerings: \$50,000

Total Donations: \$15,000

Total Expenses: \$35,000

Net Income: \$30,000

| Event Schedules: |
|--|
| Event Name: Sunday Service |
| Date: 2023-01-08 |
| Time: 10:00 AM |
| Location: CFF Church, Bunyala Road |
| Speaker: Pastor Smith |
| |
| Communication Protocols |
| Protocol Name: Visitor Welcome |
| Description: When a new visitor arrives, a welcome team member should greet them at the entrance, offer information about the church, and guide them to the registration desk for contact details. |
| Responsible Team: Ushers and Greeters |
| Membership Records: |
| Member Name: Mary Johnson |
| Membership ID: CFF1002 |
| Contact Information: mary.johnson@email.com , +1-987-654-3210 |
| Membership Type: Regular |
| Joining Date: 2021-03-20 |
| |
| 4.2.2.Sample Survey Questions1. User Experience with Current System: |
| On a scale from 1 to 5, how would you rate your overall experience with the current church management system, where 1 is very unsatisfactory and 5 is very satisfactory? |
| |
| \square 2 |
| |

□ 4

| | 5 |
|----------|--|
| 2. 1 | Usability and Accessibility: |
| Но | w easy is it for you to navigate and use the current system? |
| | Very Difficult |
| V | Somewhat Difficult |
| | Neutral |
| | Somewhat Easy |
| | Very Easy |
| 3. 1 | Most Valuable Features: |
| Wł | nich features of the current system do you find most valuable? (Select all that apply) |
| V | Member Registration |
| | Financial Contribution Management |
| V | Event Scheduling |
| | Member Communication |
| | Others (please specify): |
| 4. / | Areas Needing Improvement: |
| Wł | nat aspects of the current system do you believe need improvement? (Open-ended) |
| [A] | l the areain the system] |
| 5. \$ | Suggested Enhancements: |
| If y | you could add or change one feature in the system, what would it be? (Open-ended) |
| [ch | ange the member registration] |
| 6. \$ | System Accessibility for Teens: |
| | enagers, how easy is it for you to use the system? (Rate from 1 to 5, where 1 is very difficult 15 is very easy) |
| | 1 |

| ▽ 2 |
|---|
| |
| |
| |
| 7. Additional Comments: |
| Do you have any additional comments or suggestions regarding the current system's usage and functionality? (Open-ended) |
| [the system makes users a lot dissatisfied] |
| |
| 4.2.3.Sample Interview Questions:1. Background and Role: |
| Can you briefly describe your role and responsibilities within CFF Church? |
| How long have you been associated with the church, and in what capacity? |
| 2. Current System Usage: |
| What are the primary tasks or processes you use the current church management system for? |
| Are there any specific challenges or difficulties you encounter when using the system for these tasks? |
| 3. System Strengths: |
| In your opinion, what are the strengths or positive aspects of the current system that you've observed? |
| Can you share any success stories or examples where the system has been particularly beneficial? |
| 4. Areas Needing Improvement: |
| What aspects of the current system do you believe need improvement or modification? |
| Are there specific pain points or issues that hinder your tasks or responsibilities? |
| 5. Expectations and Desires: |
| What are your expectations for the new CFF Management System? |

Are there any specific features or functionalities you would like to see in the new system?

6. Impact on Member Engagement:

How do you envision the new system positively impacting member engagement and communication within the church?

Can you provide examples of how improved systems could enhance member experience?

7. Challenges and Barriers:

Are there any challenges or barriers you anticipate in transitioning from the old system to the new one?

What steps do you believe should be taken to overcome these challenges?

8. User Training and Support:

Do you have any preferences or recommendations for user training and ongoing support for the new system?

How can the church ensure that all members and stakeholders are well-equipped to use the system effectively?

9. Integration with Existing Processes:

How do you see the new system integrating with or complementing existing church processes and workflows?

Are there any concerns about disrupting established routines during the transition?

10. Additional Comments:

Is there anything else you would like to share about your experiences and expectations regarding the new system?

Do you have any specific insights or suggestions that haven't been covered in these questions?

4.2.4. Observation Record

1: Member Registration Process

Observation Date: 2023-03-15

Process Description: Member registration

Findings:

Registration is entirely paper-based.

Member information is handwritten on physical forms.

Data entry is time-consuming and prone to errors.

2: Financial Contribution Management

Observation Date: 2023-03-16

Process Description: Financial contribution management

Findings:

Financial contributions are tracked using spreadsheets.

Data entry takes considerable time.

Difficulty in generating accurate financial reports.

3: Event Scheduling and Coordination

Observation Date: 2023-03-17

Process Description: Event scheduling and coordination

Findings:

Events are scheduled using a paper calendar.

Limited communication channels for event updates.

Instances of double-booked events.

4: Member Communication

Observation Date: 2023-03-18

Process Description: Member communication

Findings:

Communication primarily through printed bulletins.

Limited use of digital communication channels.

Potential for more efficient digital communication.

5: Teen and Sunday School Management

Observation Date: 2023-03-19

Process Description: Teen and Sunday school management

Findings:

Attendance tracking is manual, involving paper lists.

Limited communication with parents.

Opportunity to automate attendance tracking.

Map

