

LOG SHEET FOR GROUP 14

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USER REQUIREMENT
DOCUMENT
FOR
CHURCH EVENT MANAGEMENT SYSTEM

GROUP 14 | DATABASE PROGRAMMING |
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1. OVERVIEW

The document describes the requirements for a system which is designed to help the church manage event registrations, payments, and communication with participants effectively with less manual effort. Our developed system will be automating follow-ups on payment requirements, tracking important due dates, and send timely reminders and notifications to make sure that participants are kept up-to-date and organized.

2. INTRODUCTION

PROBLEM UNDERSTANDING

Problem Statement: the problem addressed by the system is the lack of a system and integration tools to manage follow-ups on payments requirements, track critical deadlines, and send reminders for church events. Currently, the church lacks an automated system to handle these tasks, which lead to issues such as missed payments, deadlines, and disorganization among participants.

PURPOSE OF THE DOCUMENT

The purpose behind this document is to identify the use requirements for the development of a Church Event Management system. This system will be used by church staff to be able to manage follow-ups on payment requirements, tracking and communicate important due date, and send timely reminders as the event date approaches. This will keep participants up-to-date on their obligations, prevent the risk of missing payments or deadlines, and help everyone to stay organized and well prepared for the event.

BACKGROUND INFORMATION

Church events often have countless participants that need to be kept updated about payment duties, event details, and important due dates, The current approach on managing these reminders is manual, which can lead to missed payments, unorganized event preparations, and confusion among participants. The church event management system underway will automate these processes, making sure that participants receive accurate and timely notifications and that church administrators can manage these event-related tasks efficiently.

BUSINESS OBJECTIVES

Church event management system aims to make sure that event payments must be made on time, remind participants on event dates and deadlines, improve the communication between the church staff and event participants, by doing so will increase event engagement. Is to have a system that can handle managing events, and payment tracking.

- **Ensuring Payment Compliance:** Is to reduce the risk of missed payments by sending timely reminders and tracking participants' payment status.
- **Improve Communication:** Is to improve communication for follow-up actions, payment requirements, and important due dates, by sending automated reminders.
- **Improve Event management:** Is to improve event management by enabling the system to be able to manage and track countless events, payments tracking and deadlines.

PROJECT SCOPE

AIMS/Project overview

This document covers the requirements for developing a church event management system that will automate event planning, scheduling, and handle event registration, payment tracking, deadline notifications, and reminder services. It includes user requirements, functional, non-functional, and regulatory requirements necessary for the system to meet its objectives.

PROJECT OBJECTIVES

- The project objective is to develop a user-friendly Church event management system with functionalities the user requires and a secured system to ensure data integrity for the church.
- To provide tools for creating schedules for different time slots, event registration, and communication.
- To develop a backup and restore mechanism which will prevent Losing data and maintain business continuity.

3. SYSTEM DESCRIPTION

Our church event management system is a complete software solution which is designed to assist churches in handling different tasks and responsibilities at the same time. It will help church members and the community to stay well-informed about social gatherings, events and stay organized by keeping track of important deadlines such as follow-up on payments and event dates. Our system can send out automated reminders to participants via the communication method they have chosen like emails or text messages. Our system helps by providing church staff, ministry leaders, church members with the right tools needed to manage church operations, organize events. The ability to share reminders with staff, ministry leaders, and members promotes teamwork and ensures that everyone is on the same page regarding important events or deadlines.

GENERAL DESCRIPTION

General System capabilities

- Is for the system to Automate sign ups/registration for event, to track payment, and send timely reminders.
- System to generate report feedback on events, payments, and system data for system maintenance.

CONSTRAINTS

System Accessibility

Constraint: The system must be accessible by both organizers and participants.

The system must be developed in such a way that is accessible by all users, event organizers and the system should be able to handle multiple devices

Notification Channels

Constraint: The system must send notifications through email or SMS.

Depending on user, different user prefer different communication methods, such as email and SMS. Making sure that reminders are timely sent through both methods, reduces the risk of missed payments.

Data integrity

Constraint: The system must maintain data integrity and confidentiality

This constraint requires that personal information of the users and church data must be secured to ensure data integrity and prevent unauthorized access to the system databases.

EXTERNAL SYSTEMS

These are software or hardware components that will be used to interact with your system or application

External systems such as Email servers must integrate with our system, which will make it easy for the system to send timely reminders to participants quicker.

4. USER DETAILS/STAKEHOLDERS

The system users are people that will be interacting with the system frequently.

Event Organizers: These are the people responsible for organizing the user event, and make sure everything is organized and running smoothly.

Church Member: These are regular people who take part in church services, events, social gathering.

Participants: These are the Users that will be interacting with the system to register for church events.

Church Administrative Staff: These are the people responsible for maintaining the system, ensure streamlined processes, and use it scheduling, registration, basically to make sure that the system is functional.

Ministry leader: These are the individuals that hold position of responsibility within a church. They are responsible for approving church events, social gatherings, and oversee the overall direction of the church.

5. USER REQUIREMENTS, USE CASE & SCENARIO

FUNCTIONAL REQUIREMENTS: (describe the functions that our system is capable of performing that meets our user requirements)

- Users can create a profile, register and pay for an event.
- Participants can view event details and their registration status.
- Users can log into the system using their password and username.
- Church administration staff should be able to create, edit and delete events.
- Church admin staff should be able to define the details of the event (event name, time, date, location, capacity and fees.
- Set up reminders and payment details.
- Track event registration and generate reports on attendance and payments.

NON – FUNCTIONAL/SYSTEM REQUIREMENTS: (describe how our system behaves under different conditions)

- Clear and easy interface for all users with consistent design elements and navigation throughout the system
- Error handling through clear and informative error messages provided to guide the users
- Response time less than 4 seconds
- Able to handle a high volume of concurrent users and transactions
- Can accommodate increasing number of users, events and data
- Our system is compatible with different browsers operating systems and devices.
- We have access controls to restrict unauthorized access to sensitive information such as contact information and payment details
- Backup and recovery.
- System should be able to track payments, create automated reminders

USE CASES

- The participant will sign up on the church system just by creating their own username and password.

- The participant can log into the church system using the username and password they have created.
- At the sign up page for events, the system will display a list of available events with their details and costs for participants.
- The participant can select any event they want and sign up for it and completes the registration process.
- After the sign up process, the system will show payment options the participant can choose from, such as online payment, bank transfer, or cash.
- Participant must choose a payment method and complete the payment.
- The system will confirm the participant's payment and will update the participant's payment status to keep in touch with follow ups.
- The system will track payment due dates related to the event, such as payment deadlines.
- The system will schedule automated reminders according to the participant's choice of communication method (email, SMS) and sends timely reminders for upcoming deadlines.
- The participant receives reminders and prepares for the event they have chosen.

SCENARIO

Event registration:

- The Participants can sign up on the system and create their own username and password, which they will use for logging in the church system
- Participants, church members can log on the system register for an events
- Well, in process the system will display event detail, details, and cost for the event.

Payment:

- when the participant has successfully signed up, the system will display how they want to pay for the event, such as online payment, bank transfer or pay Cash

Tracking due date:

- So the system will track down payment due dates for the events, such as payment deadlines.

Communication method:

- The system will schedule automated reminders, to send re timely reminders to participants according the communication channel they chose, via email, SMS.

6. SOFTWARE FOR SYSTEM DEVELOPMENT & IT EQUIPMENT REQUIREMENT

Type of Software to be used for System Development

- **Integrated Development Environment (IDE):** IDE Tools such as Visual Studio Code, JetBrains, IntelliJ IDEA, or Eclipse for coding. This will come in good because for our experience from Database Fundamentals & Programming, Introduction to computing & Programming 1 as well as Data structure and Algorithm.
- **Programming Languages:** With the experience we have obtained, will be using Python, Java, JavaScript (for front-end), and SQL (for databases) for this System.
- **Database Management Systems (DBMS):** we will be using DBSM such as MySQL, PostgreSQL that will be used be handling data storage and retrieval.

IT EQUIPMENT REQUIREMENT

1. Hardware

Database server: Main Database to store the user and church data, reminders, and system configuration.

Application server: Server to host the reminder management application.
Email server: the server to send email notifications.
Client Computers: For administrative staff, church staff, and users accessing
Mobile Devices: Devices for users to access the system on the go (optional).

2. Software

Operating System: For servers and client computers.
Database Management System: It's to store and manage data.
Application Software: The reminder management application itself.
Security Software: To protect system user and church data and prevent unauthorized access to the database.

7. DEFINITIONS, ACRONYMS, REFERENCES

DEFINITIONS

Participant: A person who registers for church events and attends the church event, they are just Church members in general.

Event Registration: This is a process by which any participant that uses the system can sign up for church events, by simply providing necessary detail.

Due Dates: Specific deadlines related to the event, such as payment deadlines, submission of documents, or other required actions.

Timely Reminders: Notifications which are sent to participants to remind them about upcoming due dates or maybe follow ups payments, which sent via email, SMS, depending on which method they chose.

ACRONYMS

SMS: SMS stands for Short Message Service, it's basically a text messaging service that allows the exchange of messages between devices.

DBMS: This is a software system that can be used to store , retrieve, and run queries. Four types of DBMS are hierarchical DBMS, Network DBMS, Relational DBMS and Object Oriented DBMS

REFERENCES

<https://onechurchsoftware.com/>

<https://go.churchteams.com/>

<https://www.planningcenter.com/>