**KAAGAPAY MO KARAMAY MO FUNERAL SERVICE: A PAYMENT ONLINE SYSTEM**

An

**Application Development Project**

**Presented to the Faculty of**

**Mindoro State University Calapan City Campus**

**Masipit, Calapan City**

**Oriental Mindoro**

In Partial Fulfillment

of the Requirements for the Degree

Bachelor of Science in Information Technology

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OCTOBER 7, 2024

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CHAPTER I

INTRODUCTION

1.1 PROJECT CONTEXT

The Funeral Online and Payment Tracking System is designed to help funeral to manage payments. Instead of tracking payments by writing in a passbook, the system will keep payment records in an organized way. This setup allows funeral providers and clients to view payment updates, track payment progress, and see all past payments. The goal is to make payment tracking easier, make sure payments are on time, and keep records clear and easy to understand.

**Key Features:**

1. **Client Registration**:
   * Clients can register online, providing personal data to gain access to their payment records.
2. **Payment Management & Tracking:**
   * Clients can track payment status online by logging in and searching using their ID (e.g., pending, completed).
   * Branch Manager/Admins can view and manage incoming payments, send reminders for pending or overdue payments, and generate payment receipts and invoices.
   * The system only supports CASH as payment.
   * Generate payment receipts and invoices.
3. **Notifications and Alerts:**
   * Automated reminders and alerts for upcoming payments or missing details are sent to clients.
   * Both clients and administrators will receive notifications on their dashboards or via email.
4. **Admin Dashboard:**
   * The admin can view all registered clients and payments.
   * Financial reporting tools are provided for tracking payment collections, outstanding balances, and generating reports.

**Target Audience**

1. **Funeral Service Providers:**

* Small to large funeral homes looking to automate their operations and track payments.

1. **Clients:**
   * Individuals seeking to manage payments and service progress online.
2. **Administrators:**
   * Staff responsible (e.g., General Manager, Branch Manager ) for overseeing funeral arrangements, managing clients, and handling payment collections.

**System Components**

1. **Front-end:**
   * User Interfaces: Client and admin portals with easy-to-use, intuitive design.
   * Responsive Design: Ensure compatibility across desktops, tablets, and smartphones.
2. **Back-end:**
   * Authentication: User login system for both clients and admins.
   * Payment Integration: Support for secure payment (CASH).
3. **Database:**
   * Client Information: Stores client details and history.
   * Payment Records: Tracks all payments, including amounts, dates, statuses, and methods.

**Development Stack:**

* Front-End: HTML, CSS, JavaScript, React (or other frameworks)
* Back-End: Node.js with Express.js
* Database: MongoDB (for relational data)
* Payment Integration: CASH
* Views: EJS or React for rendering dynamic content

**Sample Workflow:**

1. **Client Registration:**
   * The client registers and provides personal details to create an account, allowing them to access their payment information.
2. **Payment Initiation:**
   * The client makes an initial deposit or full payment, and the payment status is updated in their account. Clients can view their payment status (such as pending or completed) by logging into their account.
3. **Payment & Reminders:**
   * The system automatically sends a payment reminder to the client by email one week before the due date. Once the payment is completed, an invoice is generated, and the client can view it in their account by logging in.

**Potential Benefits:**

* **For Clients:**
* Clear and easy-to-understand payment information.
* Convenient, online management of payments.
* **For Service Providers:**
  + Simplifies management of client payments.
  + Real-time updates on payment statuses and finances.

**1.2 OBJECTIVES**

**Simplifying Funeral Arrangements:**

The system aims to ease the burden on both funeral homes and clients by providing an online platform where families can conveniently manage funeral arrangements without needing to visit the funeral home in person. This reduces the complexity during an emotionally difficult time.

**Ensuring Efficient Payment Tracking:**

The system aims to offer real-time payment tracking to ensure clients can easily monitor their payments, check outstanding balances, and make payments securely. This minimizes missed payments and ensures that financial transactions are timely.

**Enhancing Client Experience and Communication:**

By providing a user-friendly platform, clients can view payment progress and receive updates. Automated notifications and reminders ensure clear communication, reducing the risk of misunderstandings or payment delays.

**Supporting Funeral Home Operations:**

The system automates administrative tasks related to payment tracking and financial reporting. This enhances efficiency and allows the funeral service provider to focus on delivering quality service.

**Maintaining Accurate Records:**

The system stores detailed records of all transactions, ensuring accurate financial tracking and compliance with legal requirements. This historical data is accessible for follow-up services or audits.

**1.3 SCOPE AND LIMITATIONS**

**Scope:**

1. **Client Registration**:
   * Clients can register online, providing personal details such as Name, Age, Gender, Address, Birthday, Phone Number, Email, and Password.
   * The system allows clients to provide necessary information for the arrangement.
2. **Payment Tracking (Cash Only)**:
   * The system allows clients to track their payment status (e.g., pending, partial, completed).
   * Funeral service providers update the payment status in the system once cash is received.
   * Automated notifications and reminders are sent to clients regarding payment deadlines or outstanding balances.
3. **Record Management**:
   * The system maintains records of all payments received and payment statuses.
   * Clients and service providers have access to previous records, allowing for easy reference or future planning.

**Limitations:**

1. **Cash-Only Payment System**:
   * **No Online Payments**: The system does not support online payment methods such as credit cards, bank transfers, or digital wallets (e.g., PayPal, Stripe). All payments must be made in cash, which may be less convenient for some clients.
   * **Manual Payment Updates**: Payments are updated manually in the system, which could delay verification.
   * **No Real-Time Payment Tracking**: Unlike systems with online payment, real-time transaction tracking is unavailable.
2. **Limited Geographic Reach**:
   * The cash-only model restricts the service to local or regional clients who can visit the funeral home to make payments in person. This limits the system's usefulness for remote or international clients who cannot pay in cash.
3. **Security Risks**:
   * Cash transactions carry inherent security risks, such as the potential for loss or theft during the handling and storage of physical money.
   * The system does not include features for securely managing or reporting cash-handling procedures, which may increase the risk of human error or mismanagement.
4. **No Integration with Financial Systems**:
   * Since the system does not handle electronic transactions, it cannot be integrated with accounting software or bank systems for automated financial reporting. This means that all financial data, including payments and outstanding balances, must be manually updated and reconciled by the service provider.
5. **Client Convenience**:
   * Clients who prefer to use credit cards, bank transfers, or other digital payment methods may find the cash-only system inconvenient. This could potentially result in dissatisfaction or lost business if clients are unable or unwilling to pay in cash.

**1.4 DEFINITION OF TERMS**

**1. Client:**

The individual or family member who avails of the funeral services. They are responsible for managing payments.

**2. Funeral Service Provider:**

The company or organization that offers funeral services, including arranging burial, cremation, and other related services.

**5. Payment Status:**

Refers to the current state of a client’s payment for funeral services. Common statuses include:

* **Pending:** The client has not yet made any payments.
* **Partial:** The client has made a partial payment, but the full amount is not yet settled.
* **Completed:** The client has fully paid for the funeral services.

**6. Cash Payment:**

The only accepted payment method, requiring physical cash payment at the service provider’s location.

**7. Invoice & Receipt:**

A document provided by the funeral service provider that lists the services rendered, their costs, and the total amount to be paid by the client. It serves as an official request for payment.A document issued by the funeral service provider to the client as proof of payment after the client has settled the funeral service fees in cash.

**9. Dashboard:**

An interface displaying a summary of a client’s payment status.

**10. Payment Reminder:**

An automated or manual notification sent to the client 1 week prior to due date, reminding them of an upcoming or overdue payment. The reminder is designed to prompt timely settlement of fees.

**11. Outstanding Balance:**

The remaining amount of money that a client needs to pay after a partial payment has been made for the funeral services.

**12. Manual Payment Update:**

The process of updating the client’s payment status in the system after cash has been received. Since payments are made in cash, the system requires manual input from the funeral service provider to reflect payment completion or partial payment.

**13. Funeral History:**

The record of all services, payments, and transactions related to previous funeral arrangements made by a client. This information can be accessed for reference or reporting purposes.

**15. Administrator:**

A staff member who manages payments, updates statuses, and oversees operations.

**20. System Log:**

A record of all actions related to payments and financial transactions for accountability.

**CHAPTER II**

**REQUIREMENTS SPECIFICATION**

**2.1 Hardware and Software Requirements**

2.1.1 Hardware Requirements

**Hardware Requirements**

1. **For Funeral Service Provider (Admin Side)**:
   * **Server**:
     + Processor: Intel Xeon or equivalent (Quad-core or higher)
     + RAM: Minimum 8 GB (16 GB recommended for high traffic)
     + Storage: Minimum 500 GB SSD (scalable depending on the amount of data, backups, etc.)
     + Network: High-speed broadband internet connection (minimum 100 Mbps for data access and system updates)
     + Power Backup: UPS or generator for continuous system operation
   * **Workstations/PCs**:
     + Processor: Intel Core i5 or higher
     + RAM: 8 GB or more
     + Storage: 256 GB SSD or higher
     + Display: Standard 1080p monitor
     + Peripherals: Keyboard, mouse, and printer (for invoices and receipts)
   * **Network Infrastructure**:
     + High-speed routers/switches for stable internal LAN/Wi-Fi access
     + Secure Wi-Fi access for authorized users
2. **For Clients**:
   * **Devices**:
     + Any internet-enabled device such as:
       - Desktop or Laptop (Intel Core i3 or higher, 4 GB RAM, 256 GB storage)
       - Smartphone (Android or iOS) or Tablet with stable internet access
   * **Internet**:
     + Broadband or mobile internet connection (minimum 10 Mbps for smooth browsing)
3. **Backup and Security**:
   * **External Backup Devices**: Regular backups to an external hard drive or network-attached storage (NAS) device for data security.

**Software Requirements**

1. **Operating System**:
   * **For Workstations**:
     + **Windows 10/11** (64-bit), **macOS**, or **Linux** distributions for client and admin access.
2. **Database**:
   * **MongoDB** for managing client data, services, and payment records.
   * **Backup Solutions** for database redundancy and regular backups.
3. **Back-End Framework**:
   * **Node.js** with **Express.js** for building the back-end server and APIs.
4. **Front-End Framework**:
   * **HTML and JavaScript** for creating the user interface.
   * Optional: **React.js**, **Vue.js**, or **Angular.js** for building a more dynamic and responsive user experience.
   * **Bootstrap** **CSS** for styling and responsive design.
5. **Web Server**:
   * **Apache** for handling HTTP requests.
   * **SSL Certificates** for secure transactions and data protection (HTTPS).
6. **Browser Support**:
   * The system should be accessible via modern browsers like **Google Chrome**, **Firefox**, **Safari**, and **Microsoft Edge**.
7. **Development Tools**:
   * **Visual Studio Code** for code editing.
   * **Git** for version control and collaboration.
8. **Security Software**:
   * **Antivirus/Anti-malware** for workstations to protect from threats.
   * **SSL/TLS Encryption** to secure all data transfers between the client and the server.

**2.2 Functional Requirements**

The functional requirements outline the specific features the Funeral Payment Tracking Management System must provide, with focus on user management, payment processing, notifications, and reporting.

**1. User Management**

**1.1 Client Registration and Login**

* Allow clients to register with personal details (name, age, gender, birthday, address, email, and contact info).
* Clients log in using an email and password combination, with password reset via email available.

**1.2 Admin Registration and Login**

* Funeral service provider staff (admins) must have unique logins with higher-level access permissions for managing the system.
* Admins should be able to reset their passwords securely through the system.

**1.3 User Roles and Permissions**

* Different user roles should exist for clients and administrators.
* Restricted client access to profiles, payments, and transaction history; full admin access for system management.

**2. Payment Management**

**2.1 Cash Payment Processing**

* Allow clients to mark payments as “paid” after cash is handed over to the funeral home.
* Admins manually verify and update payment status.

**2.2 Payment Status Updates**

* Clients view their payment status (e.g., pending, partially paid, fully paid) in the dashboard.
* Admins can update statuses after verifying payments.

**2.3 Invoice Generation**

* Automatic invoice generation upon payment, viewable and downloadable by clients.

**3. Notifications and Reminders**

**3.1 Payment Reminders**

* Automatic reminders for upcoming payments, partial payments, or overdue amounts sent via email.

**4. Reporting and Records Management**

**4.1 Transaction History**

* Detailed logs of all transactions, accessible by clients to view their payment history.

**5. System Security and Backup**

**5.1 Secure Login**

* All login processes must be secured using encrypted connections (HTTPS) and proper password protection mechanisms (e.g., hashed passwords).

**5.2 Role-Based Access Control**

* Role-based access for General Managers, with access limitations for Branch Managers to view transactions within specific regions only.

**6. Client and Admin Dashboard**

**8.1 Client Dashboard**

* Displays key information like payment status, and upcoming payment deadlines.

**8.2 Admin Dashboard**

* Overview of payment statuses, reports, and client transactions.

These functional requirements ensure that the system provides a seamless, secure, and user-friendly experience for both funeral service providers and clients, while enabling effective payment and service management.

Chapter III

Design and Development Methodologies

System Design

Database Design

Architectural Diagram/ Block Diagram

DFD Level 0

UML Use-case Diagram

Sample Mock-up

CHAPTER IV

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Testing Results

ISO 25010 Evaluation Result

CHAPTER V

CONCLUSION AND RECOMMENDATION

Conclusion

Recommendation

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Sample Accomplished ISO 25010 Evaluation Form

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