

PROJECT

System Analysis & Design - IS2106

Eterna Care - Online Cemetery Allocation System
Group 19
(Team Biverse)

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Contents

1. INTRODUCTION	4
1.1 Purpose	4
1.2 Intended Audience	4
1.3 Project Scope	4
1.4 Project Timeline	5
1.5 References	5
2. Overall Description	5
2.1 Product Perspective	5
2.2 Product Function	6
2.3 User Classes and Characteristics	6
2.4 Operating Environment	7
2.5 Design and Implementation Constraints	7
2.6 User Documentation	7
2.7 Assumptions and Dependencies	7
3. System Features	8
3.1 Use Cases	8
3.2 Database(DB) Diagram	9
3.3 ER Diagram	10
4. System Requirements	11
4.1 Functional Requirements	11
4.2 Non-functional Requirements	11

1. INTRODUCTION

1.1 Purpose

In today's Sri Lanka, the operation of crematoria stands out as a significant issue in the wider context of cemetery maintenance. Addressing this issue aims to alleviate challenges arising from problematic crematorium bookings and subsequent difficulty in finding alternatives. Moreover, it aims to reduce reliance on manual systems, which create significant obstacles for local councils responsible for managing these operations efficiently.

1.2 Intended Audience

The intended audience for Eterna Care includes municipal authorities, relevant agencies involved in end-of-life services, and grieving families across Sri Lanka. Municipal authorities are key stakeholders who will benefit from a streamlined crematorium booking process and improved management capabilities. Eterna Care's facilities are also suitable for relevant agencies responsible for issuing death certificates and accessing critical post-mortem information. Finally, bereaved families who seek efficient and compassionate support during end-of-life rites will be the ultimate beneficiaries of the system.

1.3 Project Scope

Eterna Care's project scope includes the development and implementation of an online system tailored to address the challenges associated with cremation operations in Sri Lanka. Specifically, the scope includes:

- Design and deployment of a user-friendly digital platform to streamline the crematorium booking process.
- Provide transparency in the availability of crematoria across the city to empower municipal authorities to manage cremation requests efficiently.
- Facilitate seamless referrals to alternative crematoriums in the event of booking conflicts.
- Integrate functionality beyond reservation management, such as expediting the issuance of death certificates and accessing critical post-mortem information.

- Ensuring that the system is accessible and easy to use for municipal authorities, relevant institutions, and affected families.
- Conduct thorough testing and validation to ensure system reliability, safety and effectiveness.

1.4 Project Timeline

Phase	End date	Status
Requirement Gathering	01/04/2024	Completed
System Analysis & Design	17/04/2024	Completed
UI/UX Design	23/04/2024	In Progress
Prototype Development	13/05/2024	Not started
Testing & Evaluation	19/05/2024	Not started

1.5 References

- [1] "Digital Cemetery Mapping - Cemify," [Online]. Available: <https://www.cemify.com/>.
- [2] "Anuradhapura Municipal Council," [Online]. Available: <https://anuradhapuramc.lk/>.
- [3] "FuneralTech," [Online]. Available: <https://www.tributetech.com/funeral-tech>.

2. Overall Description

2.1 Product Perspective

Eterna Care, developed through this project, enables users to book a crematorium for cremation from anywhere. This service eliminates the need for physical visits to the municipality, streamlining the process. It provides greater accuracy and reduces the potential for problems that

may arise with the current manual method. Reservations can be made for up to three times within one day. In cases where slots are already booked, customers will be directed to alternative options through Eterna Care. In this situation, Eterna Care offers the opportunity to transfer your reservation to another affiliated crematorium. For that, through Eterna Care, we aim to expedite legal requirements and perform the necessary tasks more quickly and efficiently than manually on the spot.

2.2 Product Function

Eterna Care

- Crematorium Reservation
- Streamlined Booking Process
- allows users to make reservations from any location
- Time Slot & Date Selection
- Alternative Options
- Availability Checking

Web Site

- System Administration
- User Management
- Booking Management
- Content Management
- User Authentication and Security
- Manage Legal Requirements

2.3 User Classes and Characteristics

Crematorium Administrator

- Has full access to the system
- Can manage crematorium bookings, including scheduling cremations and allocating time slots
- Can view and manage booking details, availability, and any changes or cancellations
- Receives notifications about new bookings, changes, or cancellations
- Can generate reports on cremation activities, including daily, weekly, and monthly summaries

Family Member or Representative

- Can view available cremation time slots
- Can schedule cremation services for their deceased loved ones
- Receives notifications confirming the booking and providing any relevant details
- Can view and manage booking details, including making changes or cancellations if necessary
- Receives notifications about any changes or updates to the booking

2.4 Operating Environment

Eterna Care operates within a web-based environment accessible through modern web browsers such as Google Chrome, Mozilla Firefox, and Microsoft Edge. It requires an internet connection for access. The platform can be hosted on a server that is accessible to authorized users.

2.5 Design and Implementation Constraints

- Adherence to relevant data protection and privacy regulations.
- Compatibility with various devices and screen sizes.
- Design with scalability and maintainability for future updates and enhancements.
- Requirement of a Wi-Fi connection.
- Requirement of a stable power supply.

2.6 User Documentation

Eterna Care is an online platform designed to simplify the process of booking crematorium services for your loved ones. This user documentation will guide you through the features and functionalities of our system, ensuring a seamless experience for both administrators and users.

It is very simple and allows users to proceed easily and fulfill their needs. It has been designed in a user-friendly manner by providing guidance in more confusing areas. Also, an email address and a phone number have been provided to contact immediately in case of any problem. Users are allowed to get the necessary support through it at any time.

2.7 Assumptions and Dependencies

The system assumes consistent internet access and compatibility with modern web browsers. Compliance with data protection regulations is essential throughout development. Integrations with external systems and APIs are required for data retrieval and communication.

3. System Features

3.1 Use Cases

Use cases outline the various interactions between users of Eterna care (such as family members or administrators) and the system itself.

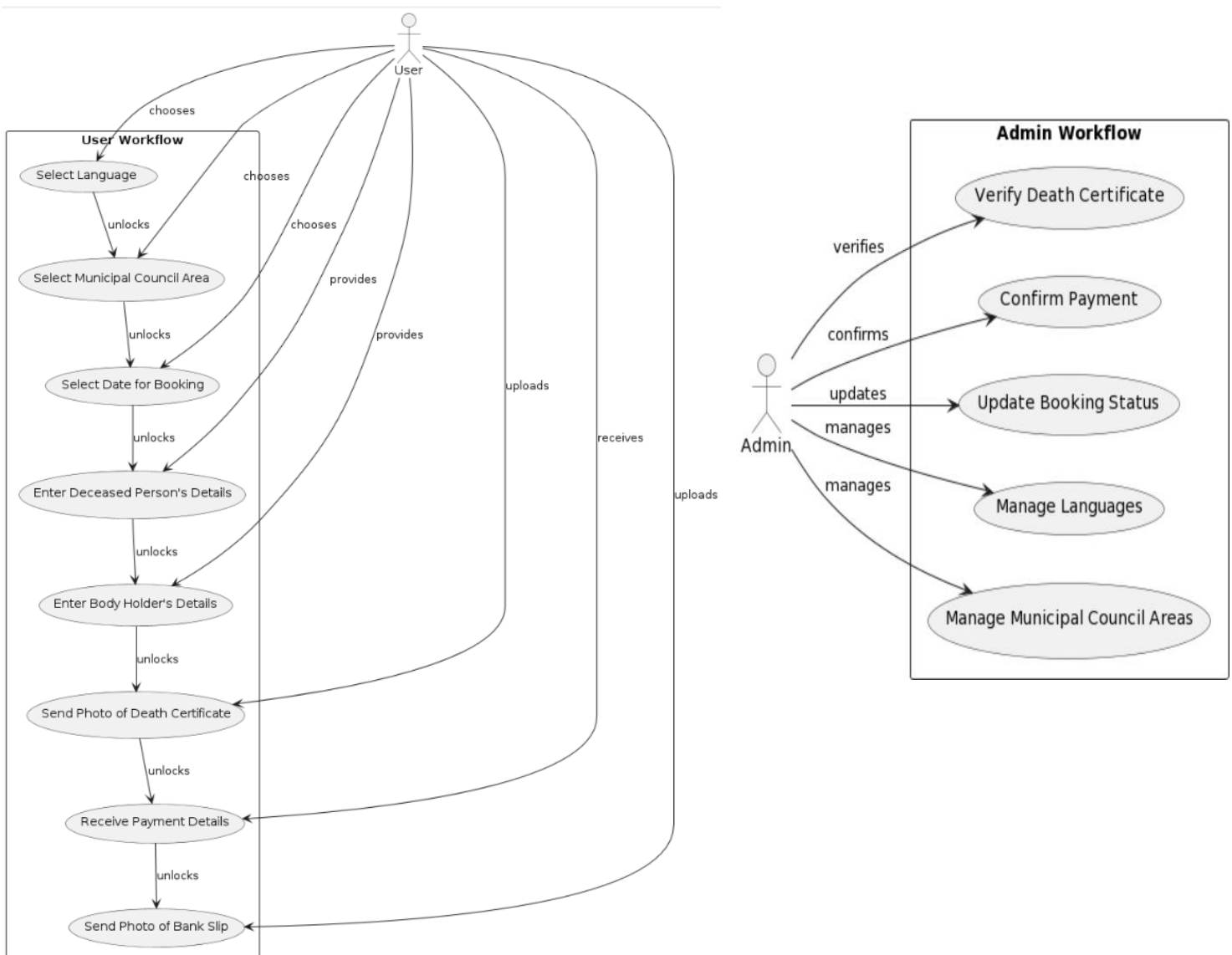


Figure 1 : Use Case for Eterna Care

3.2 Database(DB) Diagram

Database diagrams for Eterna Care would illustrate the structure of the database used to store information about crematorium bookings.

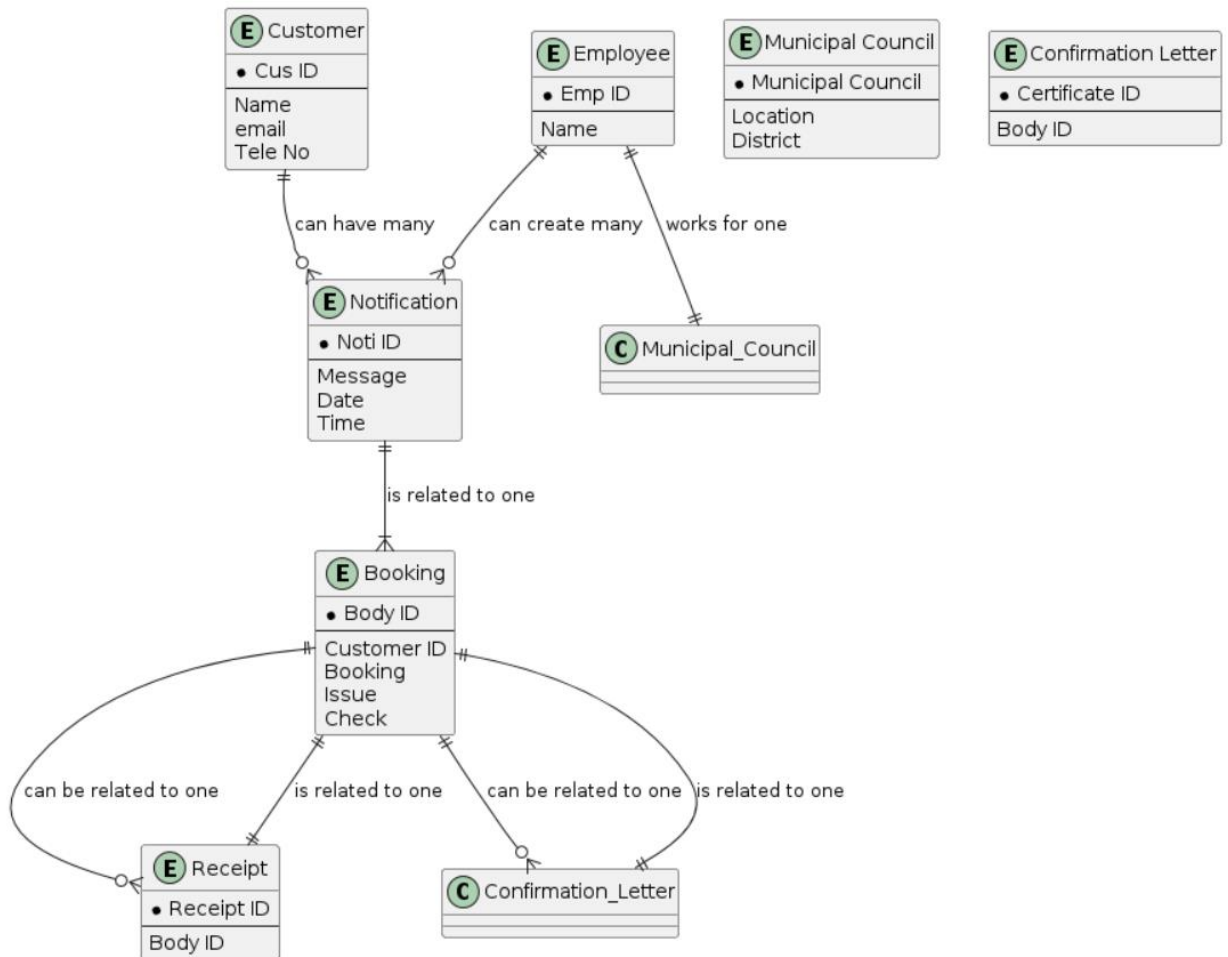


Figure 2 : DB Diagram for Eterna Care

3.3 ER Diagram

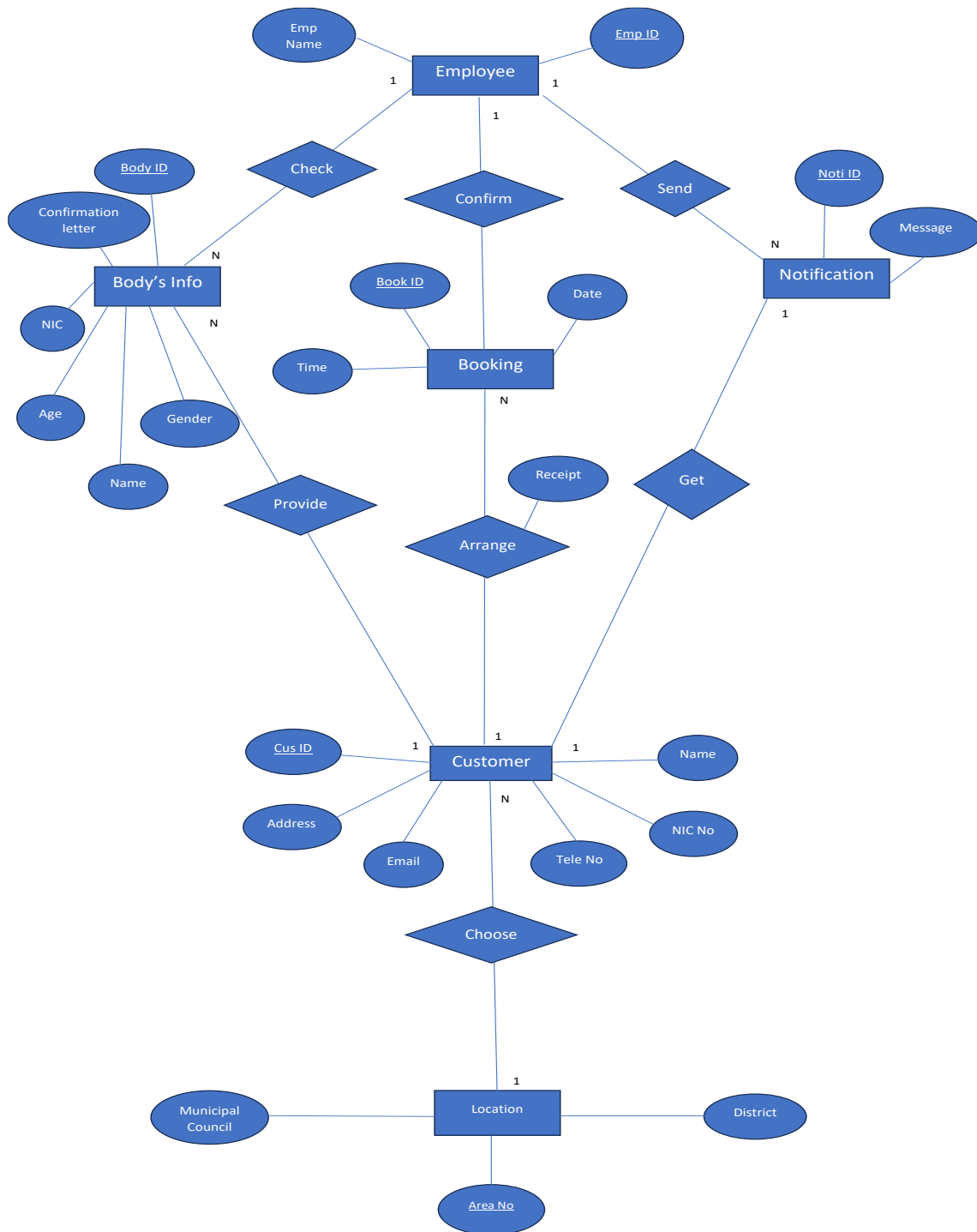


Figure 3 : ER Diagram for Eterna Care

4. System Requirements

4.1 Functional Requirements

- User Authentication
- Ensure secure access and privilege management for administrators
- Create a system capable of handling a growing number of bookings
- Develop an easy-to-use interface for managing bookings

4.2 Non-functional Requirements

- Performance-Increase system performance for fast response times
- Security-Adhere to security best practices for data protection
- Usability - Design interfaces for easy navigation
- Reliability-Implement backup procedures for data protection
- Scalability- Design system architecture to accommodate future growth