

# **Security Service** **Management System**

**Proposal Presentation**  
**ITP24R\_B1\_W22**

**16 August 2024**



**FACULTY OF COMPUTING**

**ITP24R\_B1\_W22**

# Company Background

- **Rakna Arakshaka Lanka Ltd (RALL)** is a leading security service provider known for delivering reliable and professional security solutions.
- Specializing in on-site guards and event security, RALL aims to enhance its operational efficiency and service quality through a new Security Service Management System.

# Problem and Motivation

- Current security service management approaches often face inefficiencies in recruitment, employee management, client interactions, and resource allocation.
- These problem can cause delays and make operations less efficient.



# Aim

- The aim of our Security Service Management System is to streamline and automate the management of security services, enhancing efficiency across recruitment, employee management, client interactions, and operational functions, while integrating booking, training, and inventory management.

# Objectives

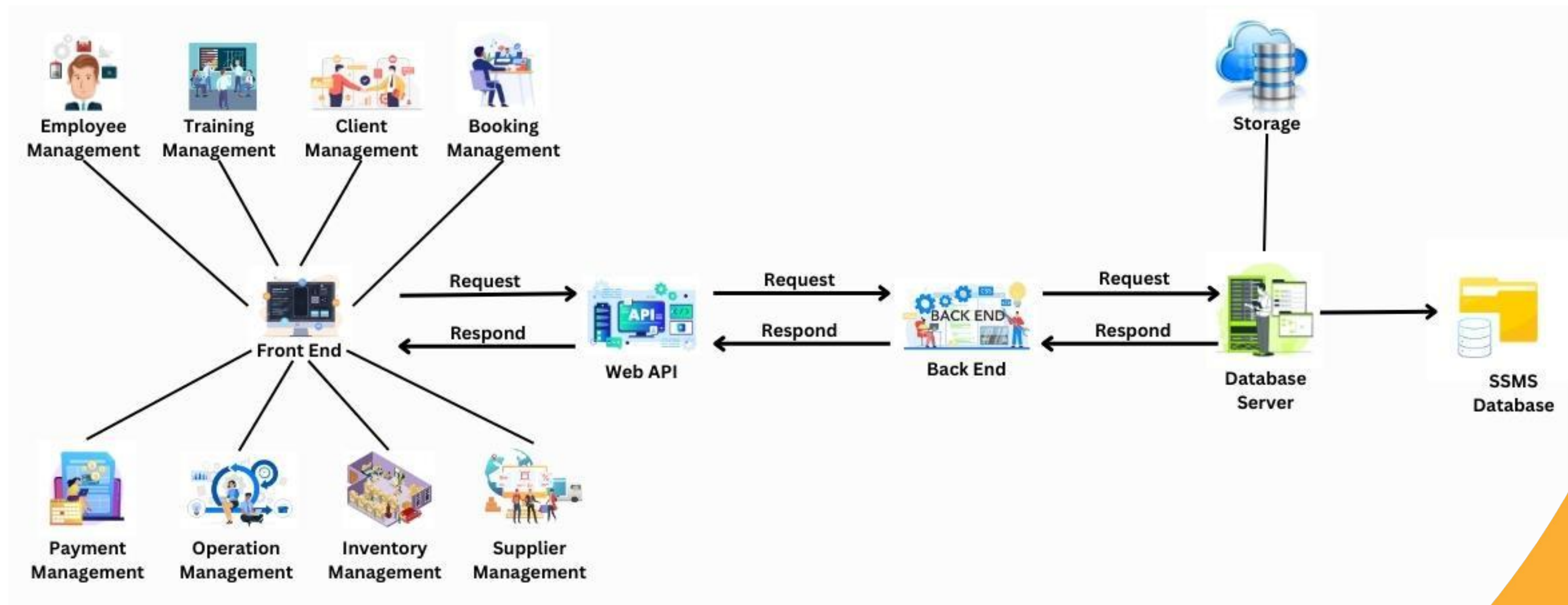
- Recruitment Process Management
- Comprehensive Client Management
- Efficient Operations Management
- Integrated Booking Management
- Enhanced Inventory and Supplier Management
- Streamlined Payment Management
- Customizable Training Management

# Literature Review

Functions	Our App	TechCERT	NobleProg	Gajashakthi
Employee Management	✓	✓	✓	✗
Training Management	✓	✗	✓	✓
Client Management	✓	✗	✓	✗
Operation Management	✓	✗	✗	✓
Booking Management	✓	✗	✗	✗
Payment Management	✓	✗	✗	✗
Inventory Management	✓	✗	✗	✗
Supplier Management	✓	✗	✗	✗

# System Overview

In accordance with the Diagram below, this system has primary interaction with users and a backend.





# SYSTEM FUNCTIONS





# Employee Management



**Name:** Fernando K K C  
**Student ID:** IT22325228



# Employee Management

## Functional Requirements

- Employee Recruitment
- User Access Control
- Employee Information Management
- Leave Management

# Employee Management

## Process Overview





# Employee Management

## Non-Functional Requirements

- Security
- Performance
- Usability
- Flexible
- Maintainable
- Recoverable

# Employee Management

## Evaluation Methods

- Tracking Applicants
- Candidates Experience
- Access Control
- Password and Login Security
- Notification and Reminders

# Training Management



**Name:** Sadisha R. M. M  
**Student ID:** IT22907998





# Training Management

## Functional Requirements

- **Course Management**
- **Training Schedule Management**

# Training Management

## Process Overview



### Training Manager

- Course Management
- Training Schedule Management



### Employee/Security Officer

- Complete the courses.

# Training Management

## Non-Functional Requirements

- **Security**
- **Performance**
- **Usability**
- **Reliability**
- **Scalability**
- **Compliance**



# Training Management

## Evaluation Methods

- Performance Metrics
- System Testing

# Client Management



**Name:** Dissanayaka D. M. S. M

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# Client Management

## Functional Requirements

- Client Account Management
- Client Information Management
- Client Requirement Documentation
- Client Feedback and Interaction



# Client Management



CLIENT

1. Register and Create Account

2. Submit Security Service Requirements

3. Make Payments

4. Provide Feedback



CLIENT MANAGER

1. Manage Client Accounts

2. Maintain and Update Client Information

3. Track all Client Requirement

4. Monitor Payment Verification

5. Collect and Review Client Feedback

# Client Management

## Non-Functional Requirements

- Security
- Usability
- Scalability
- Compliance
- 24/7 Availability

# Client Management

## Evaluation Methods

- Client Account Verification
- Client Data Accuracy Testing
- Requirements Capture Testing
- Feedback Collection Testing

# Booking Management



**Name:** Randiw E. Y

**Student ID:** IT22257086



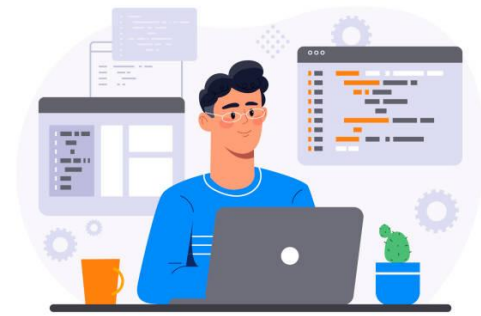


# Booking Management

## Functional Requirements

- Event Booking Management
- Booking Confirmation
- Booking Modification and Cancellation
- Booking History and Reporting

# Booking Management



## Booking Manager

Verify Availability

Assign Security Officers

Confirm Booking Details

Review Client Feedback



## Client

Request Booking

Specify Security Needs

Provide Feedback

# Booking Management

## Non-Functional Requirements

- Reliability
- Usability
- Scalability
- Availability
- Data Integrity

# Booking Management

## Evaluation Methods

- Performance Testing
- System Availability Monitoring
- Scalability Testing
- Data Accuracy Checks



# Payment Management



**Name:** Jayodhya J. D. H

**Student ID:** IT22293480



# Payment Management

## Functional Requirements

- Invoice Generation
- Payment Status Checking
- Payment Confirmation
- Financial Report Generation

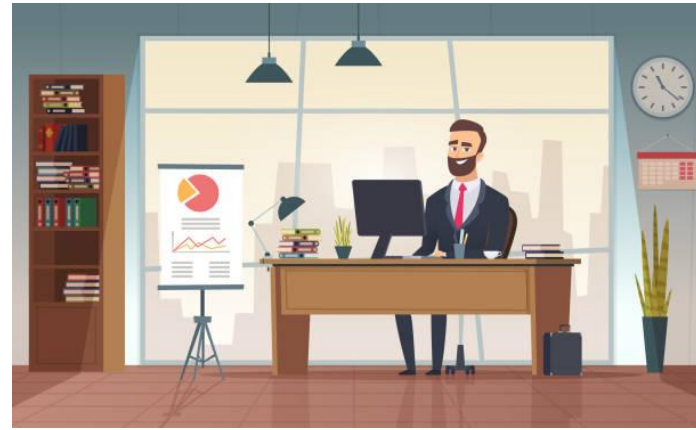
# Payment Management

## Process Overview



### *Payment manager*

- Invoice Generation
- Payment Status Checking
- Payment Confirmation
- Financial Report Generation



### *Booking Manager*

- payment verification



### *Client*

- Make a payment

# Payment Management

## Non-Functional Requirements

- Performance
- Usability
- Reliability
- Scalability



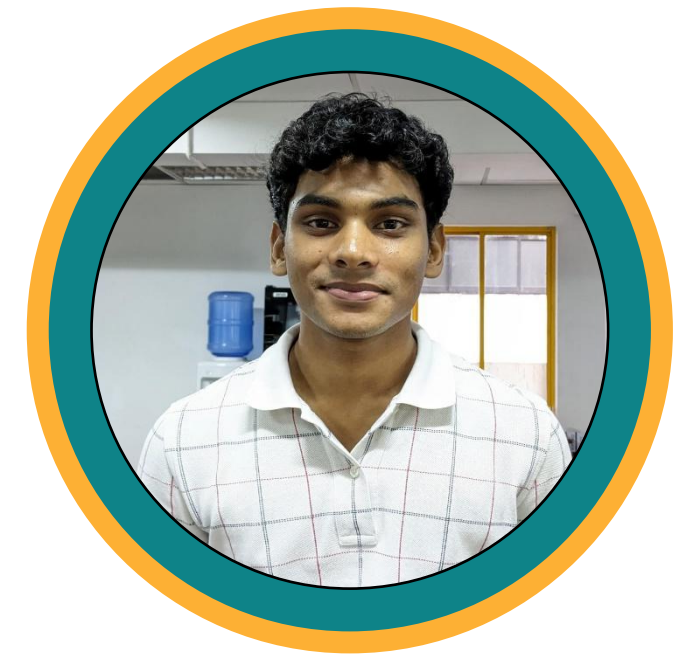
# Payment Management

## Evaluation Methods

- Performance Testing
- Usability Testing
- Accuracy Verification
- Security Assessment

○

# Operation Management



**Name:** Medawatte W. W. M. T. N. B

**Student ID:** IT22127082

# Operation Management

## Functional Requirements

- Service Scheduling and Coordination
- Service Tracking and Reporting
- Incident Management
- Resource Management

# Operation Management

## Process Overview

- Check security officers status
- Manage deployment
- Handle incidence and issues
- View and update schedule
- Communicate with security officers





# Operation Management

## Non-Functional Requirements

- Performance – System should process within 2 Seconds
- Reliability – Uptime and Backups
- Data Protection – Sensitive operational data should be encrypted
- Accessibility – System should be accessible from various devices

# Operation Management

## Evaluation Methods

- Performance Testing
- Security Assessment
- Availability and Support Evaluation
- Feedback Collection

# Inventory Management



**Name:** Kusumsiri P. A. S. S

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# Inventory Management

## Functional Requirements

- Inventory tracking and management
- Manage Stock Levels
- Provide Equipment for Employees
- Reporting and Analytics



# Inventory Management

## Process Overview



### Inventory Manager

- Create Equipment Record
- Read Equipment Record
- Update Equipment Record
- Delete Equipment Record
- Generate Inventory Report



### Employee

- Receive Equipments

# Inventory Management

## Non-Functional Requirements

- Performance Optimization
- Security
- Usability
- Maintainability
- Portability

# Inventory Management

## Evaluation Methods

- User Acceptance Testing
- Performance Testing
- Functionality Testing
- Security Audits

# Supplier Management



**Name:** Ranasinghe R. A. R. V. C

**Student ID:** IT22197146

# Supplier Management

## Functional Requirements

- Supplier management and registration
- Product and service management
- Order and transaction management
- Supplier performance tracking



# Supplier Management



Supplier

Create / login account

Get requirements and Pricing

Confirmation and timely delivery

Get payment and customer service



Supplier Manager

Supplier identification and selection

Order placement and management

Supplier performance monitoring

Manage suppliers Database

# Supplier Management

## Non-Functional Requirements

- Performance
- reliability
- Security
- Usability
- Availability
- Maintainability

# Supplier Management

## Evaluation Methods

- Security audits
- Incident response evaluation
- Reliability assessment
- Quality check
- Financial & reputation review
- Compliance verification

# Methodology

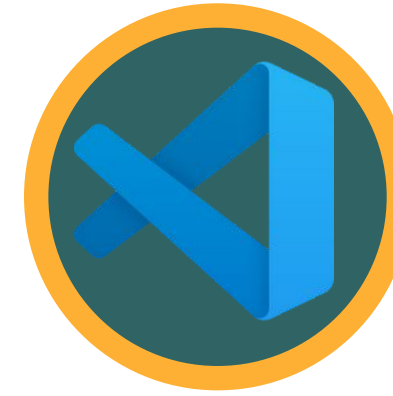
- Our Security Service Management System development follows the **Agile methodology**.
- Agile is an **iterative and incremental** approach that emphasizes flexibility, collaboration, and customer satisfaction.



# Tools & Technologies

## MERN Stack

MERN is a free and open-source JavaScript stack for building dynamic website



## Visual Studio Code

Powerful and simple IDE for work with MERN Stack

## GitHub

GitHub is cloud based version controller. Mainly use to collaborate our code.

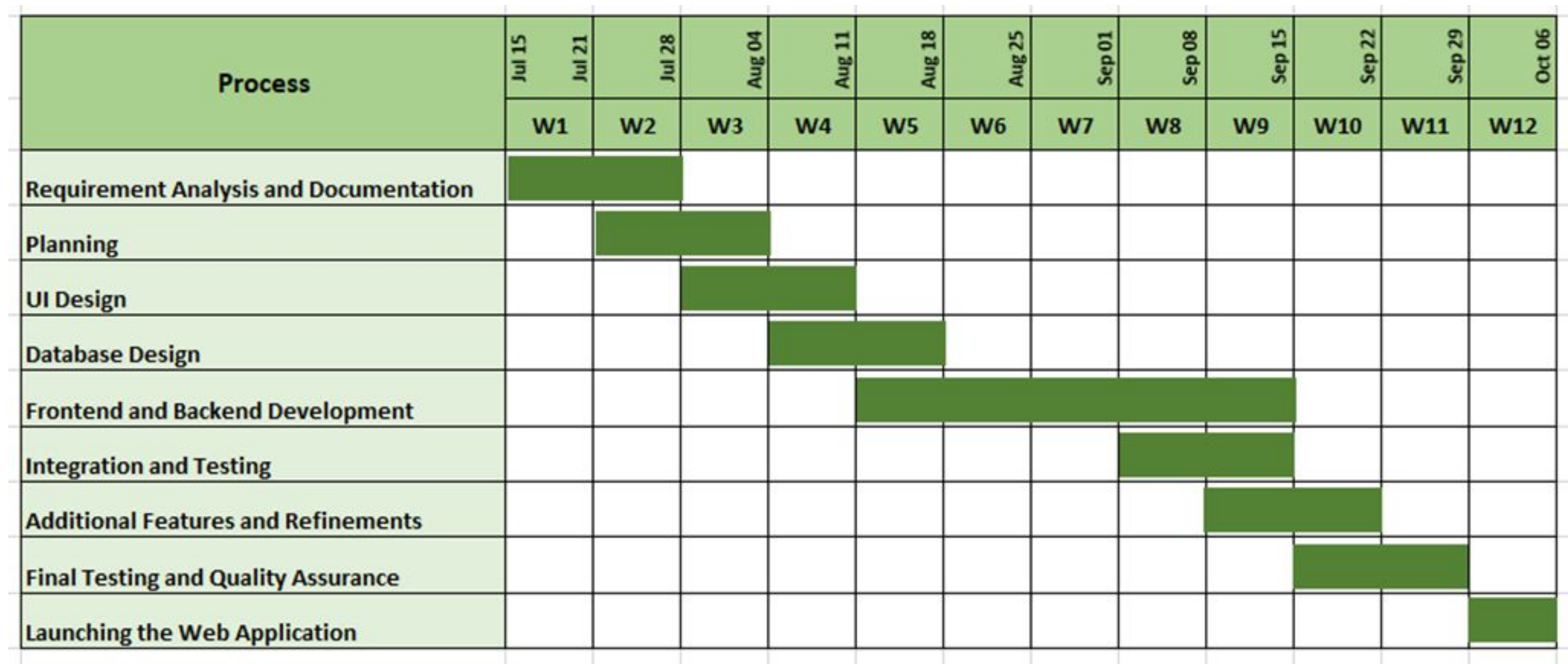


## ChatGPT

ChatBot was developed by Open AI. Used to helpful advice for different tasks.



# Development Process – Gantt Chart



# Our Team



**Fernando K. K. C**

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**Kusumsiri P. A. S. S**

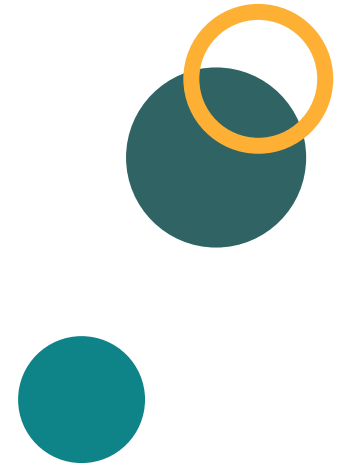
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**Ranasinghe R. A. R. V. C**

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# Thank You !

**For Your Attention**