

---

# **Software Requirements Specification**

**For**

## **Availability Checking System**

**Version 1.0**

**Prepared by Team DevOps**

**Faculty of computing / Sabaragamuwa university of Sri Lanka**

**2024.04.05**

## Table of Contents

Introduction.....	2
Product scope .....	2
Product value .....	3
Intended audience .....	3
Intended use .....	3
System requirements .....	4
User Authentication and Authorization .....	4
Availability Checking Feature .....	4
Fingerprint Attendance Integration .....	4
User Interface.....	5
Easy-to-use interface.....	5
Officer Information Display .....	5
Functional Requirements .....	5
If/Then Behaviors .....	5
Data Handling Logic.....	5
System Workflows.....	6
Performance Requirements .....	6
Details of Operations Conducted for Every Screen .....	6
External interface requirements For the project of implementing an Availability Checking system for divisional secretariat office officer's that the external interface requirements can be defined as follows, .....	6
User Interfaces .....	6
Hardware Interfaces .....	7
Software Interfaces .....	7
Communication Interfaces .....	7
Embedded Systems (if applicable).....	7
Non-functional requirements (NRFs) .....	8
Performance .....	8
Security .....	8
Scalability .....	8
Reliability.....	8
Accessibility.....	8
Maintainability .....	8
System Analysis and Requirements Specification.....	9
Entity Relationship (ER) Diagram .....	9
Use cases.....	10

Data Flow Diagram (DFD) .....	10
Database (DB) Diagram.....	12
UI/UX Design .....	13
Home page .....	13
.....	13
Sign in page.....	14
Sign up page.....	14
Province selection page.....	15
District selection page.....	16
Division selection and Check availability page .....	17
Availability showing page of selected Divisional secretariat office .....	18
Administrator Structure page .....	19
Menu-bar.....	20

## Team members

Index Number	Name	E-mail
21CIS0070	N.K.Ramanayaka	nkramanayaka@std.foc.sab.ac.lk
21CIS0096	W.A.G.Premadasa	wagpremadasa@std.foc.sab.ac.lk
21CIS0124	K.W.R.Tharumini	kwrtharumini@std.foc.sab.ac.lk

## Introduction

### Product scope

The product scope includes creating a system to track the attendance of government officials at the Divisional Secretariat in Sri Lanka. This system will use fingerprint scanners to record when officials arrive and leave the office. A web app will be made to let authorized people check attendance records in real-time. If an officer does not report to work on the scheduled day, if the upcoming leave is applied, departures for field trips, etc. can be monitored through

the website. . Reports on attendance patterns will also be generated. The purpose of this grant is to save human time and reduce congestion in the relevant government institutions.

## **Product value**

- Peoples (users,customers) can save their times and not benign uncomfortable.
- Automating attendance tracking eliminates manual processes and mainly saving time and manage the daily work for both officials and administrators.
- Government can increase their efficiency of public administration.
- With accurate real-time data on officials' presence, the system helps in managing workflow efficiently, reducing congestion and long queues at the Divisional Secretariat.
- By ensuring that officials are present during working hours, the system contributes to smoother service delivery and improved public satisfaction.
- The web application provides convenient access to attendance records remotely, allowing authorized users to monitor attendance from anywhere with internet access.

## **Intended audience**

- The system is designed to meet the needs of these various stakeholders, providing them with relevant features and functionality to effectively manage attendance within the Divisional Secretariat and improve operational efficiency.
- Those working in the Divisional Secretariat will use the system to commute to and from their duties.
- Individuals responsible for overseeing system operation and maintenance, including system administrators and IT staff.
- Citizens, elderly people seeking services from the Divisional Secretariat to get daily services. Other persons or entities that may interact with or benefit from the system that the service is intended to provide.
- This system will help high-level government officials who can use attendance data for resource allocation, planning and decision-making purposes.

## **Intended use**

- Officers will use the system to enter and exit their duty using fingerprint scanners providing accurate information about their presence in the Divisional Secretariat premises.

- Authorized persons, such as administrators and supervisors will use the web application to monitor real-time attendance records. This facilitates immediate monitoring and intervention if irregularities are detected.
- The system will generate reports on attendance patterns, including instances of lateness or absence. These reports will provide stakeholders with valuable insights for decision making and resource allocation. Also it can be use for auditing purpose.

## **System requirements**

### **User Authentication and Authorization**

- The system should authenticate different user appropriate access levels.  
Ex: Admin panel, Customers (Users)
- The credentials of users must be securely stored and controlled.

### **Availability Checking Feature**

- Customers should be able to check the availability of divisional secretariat office officers.
- The website should display officer's regular schedule.
- It should be displaying officer's availability, absence or temporary go out.  
Ex: Sick leaves, short leaves, Meetings, Field visit
- Availability information should be updated website in real-time based on officer's attendance through the fingerprint attendance system in the office.

### **Fingerprint Attendance Integration**

- The system should integrate with the fingerprint attendance system used by officers in recent time.
- Officer attendance data should be quickly captured from fingerprint system and updated in the website.

## **User Interface**

- The website should have a visually appealing and user-friendly interface accessible from various devices (desktop, mobile).
- The system should have an intuitive and user-friendly interface for customers to navigate.
- Administrators should have access to administrative functions for managing user accounts, system settings and data.

## **Easy-to-use interface**

- The website should feature an intuitive and user-friendly design, prioritizing ease of use for all visitors.

## **Officer Information Display**

- Customers should have access to officers' official information such as name, job title, office contact number and email.
- The system should provide a searchable interface for customers to find specific officer information.

## **Functional Requirements**

### **If/Then Behaviors**

- If an officer is marked as absent in the attendance record through the fingerprint system, then their availability status should be updated accordingly on the website.
- If a customer searches for an officer's information, then the system should display relevant details based on the search query.

### **Data Handling Logic**

- The system should handle officer information securely, ensuring confidentiality and integrity.

- Customer queries and interactions should be logged for auditing purposes.
- Fingerprint access

## **System Workflows**

- A workflow should be established for customers to check officer availability and access officer information.

## **Performance Requirements**

- The system should be able to handle a large number of concurrent users accessing officer availability and information.
- Response times for queries and updates should be within acceptable limits to provide a seamless user experience.

## **Details of Operations Conducted for Every Screen**

- Each screen should clearly indicate the operations that can be performed such as checking availability, searching for officers or updating information.
- Error handling and feedback mechanisms should be provided to guide users through the system.

## **External interface requirements**

For the project of implementing an Availability Checking system for divisional secretariat office officer's that the external interface requirements can be defined as follows,

### **User Interfaces**

**Web Interface:** The primary interface for customers to access the system and check officer availability. It should be user-friendly, intuitive, and accessible across various devices and screen sizes.

**Search Functionality:** Users should be able to search for officers by name, job title, or other relevant criteria.

**Officer Profile Display:** Each officer's profile should include their photo, name, job title, office contact number, email, and availability status for the day.

**Navigation:** Clear and easy navigation to browse through different sections of the website.

## **Hardware Interfaces**

**Fingerprint Attendance System Integration:** The system should be able to interface with the fingerprint attendance marking system used by officers to update their availability status.

**Device Compatibility:** Ensure compatibility with various devices that customers might use to access the website, including desktops, laptops, tablets, and smartphones.

**Communication Protocols:** Define the communication protocols required to interact with hardware components effectively.

## **Software Interfaces**

**Database Connection:** Interface with the database to retrieve officer information, availability status, and update records as necessary.

**Integration with External Systems:** Ensure compatibility and seamless integration with any existing software systems used within the devotional secretariat office for data exchange and updates.

## **Communication Interfaces**

**Embedded Forms:** Provide embedded forms for customers to submit inquiries or requests directly through the website.

## **Embedded Systems (if applicable)**

**Screen Layouts:** Define the layout of screens/pages within the web interface, including the arrangement of elements such as officer profiles, search functionalities.

**Button Functions:** Specify the functions of buttons and interactive elements within the interface, ensuring consistency and usability.

**Dependency Description:** Clearly describe any dependencies on external systems or components, outlining how the system relies on them for functionality.



## Non-functional requirements (NRFs)

### Performance

**Response time:** The system responds quickly to user requests

**Output:** Must be able to handle relevant users efficiently and accurately.

**Resource utilization:** Hardware resources should be used correctly to minimize inefficiencies on the system.

### Security

**Authentication:** Users need to verify that information is correct before they can access it.

**Authorization:** Access to various data should be restricted based on users.

**Data encryption:** To prevent unauthorized access to sensitive data, the data should be encrypted.

### Scalability

The system should be. Scaling resources horizontally as well as vertically enables systems to be easily manipulated. The scale should perform.

### Reliability

The system should be accessible as well as operational with little downtime.

**Fault tolerance:** It should be face of failures as well as success and able to recover correctly.

**Data Integrity:** All data must be correct and consistent throughout the system.

### Accessibility

It should be easily accessible to all users and the system should conform to relevant standards.

### Maintainability

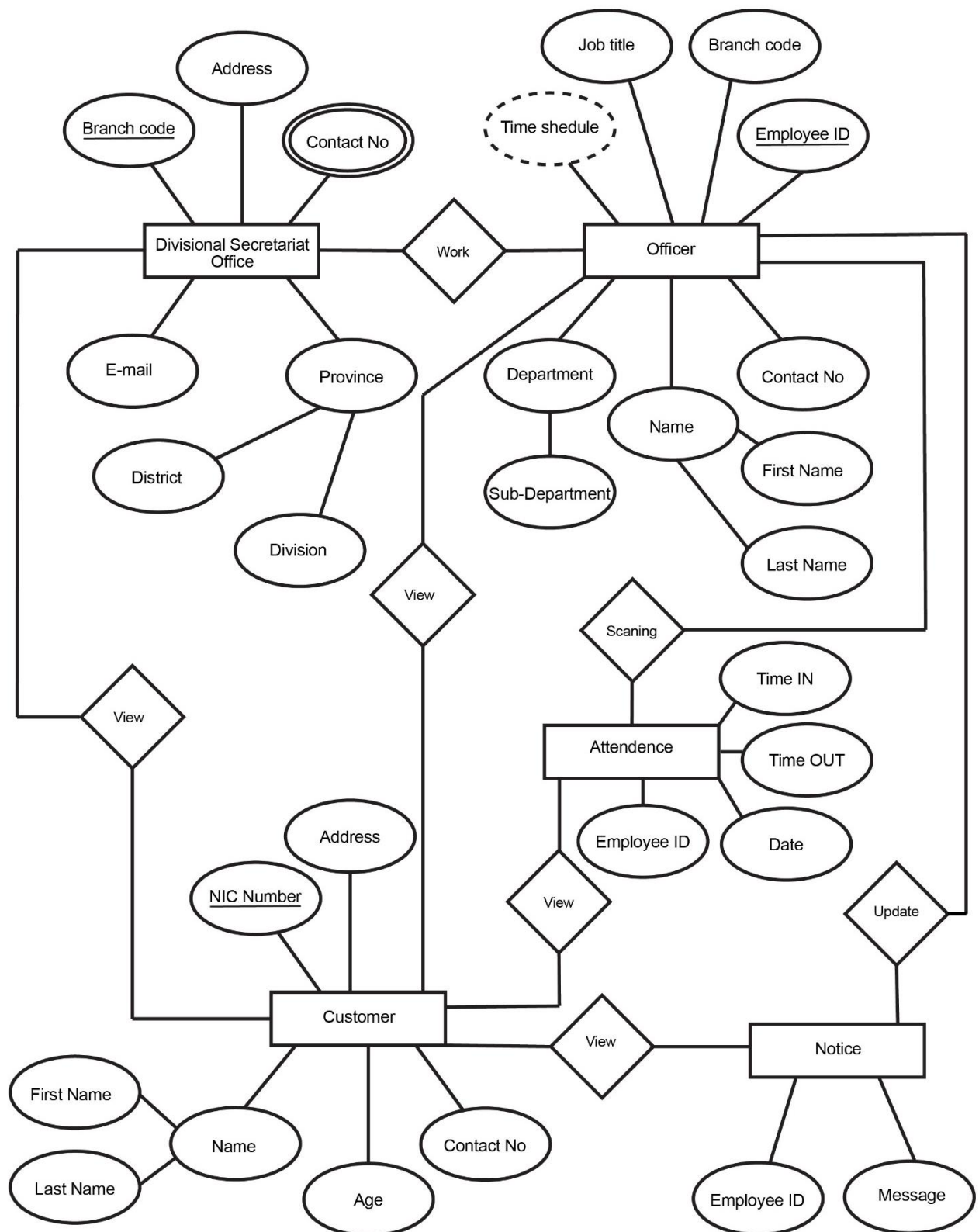
The system needs to be maintained and updated with significant downtime.

**Code maintainability:** Code should be well organized to facilitate development and debugging.

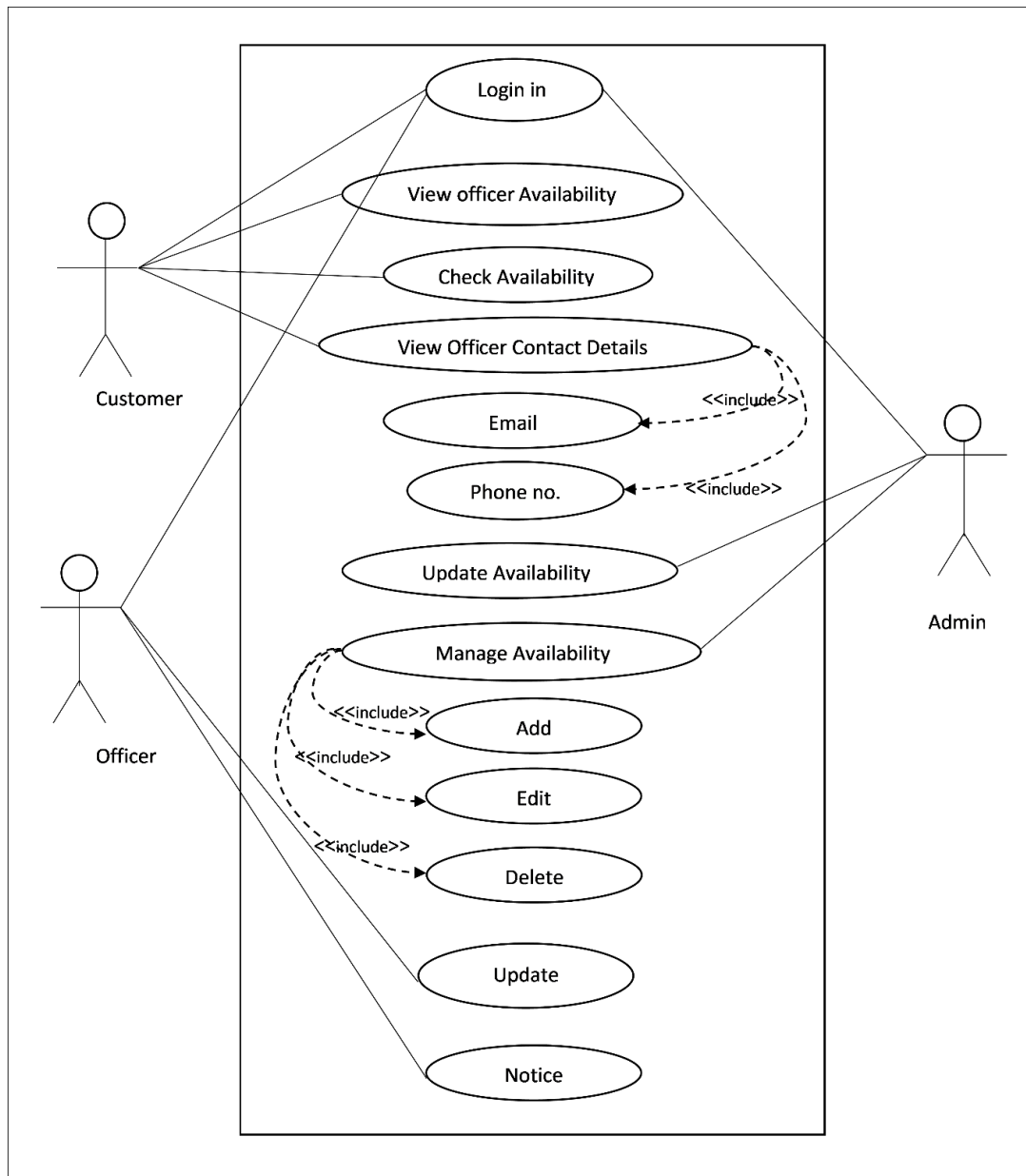
**Compliance:** The system must comply with relevant regulations such as data protection laws

# System Analysis and Requirements Specification

## Entity Relationship (ER) Diagram

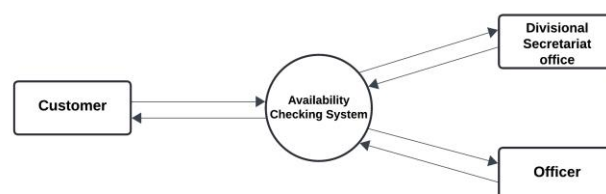


## Use cases

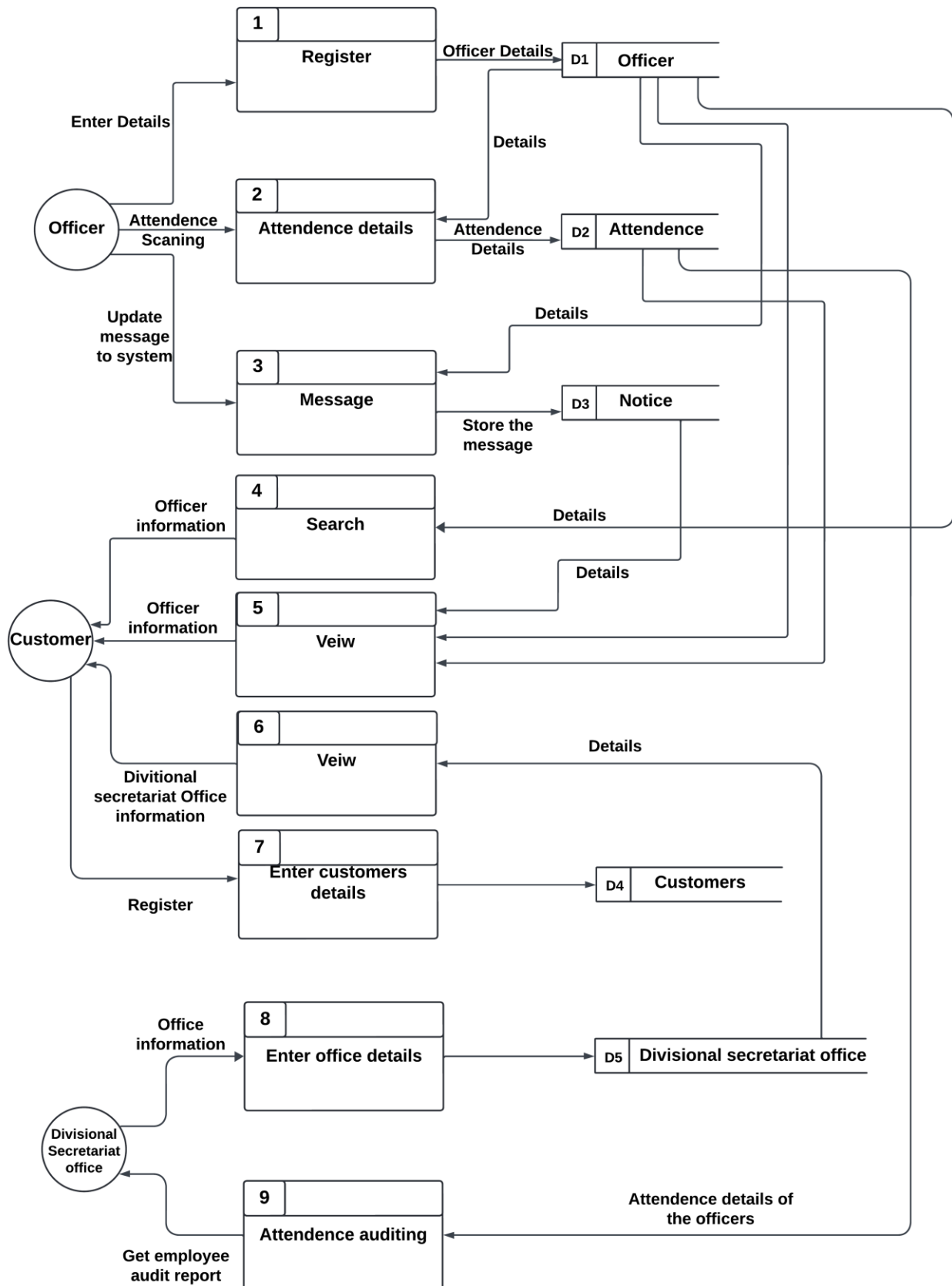


## Data Flow Diagram (DFD)

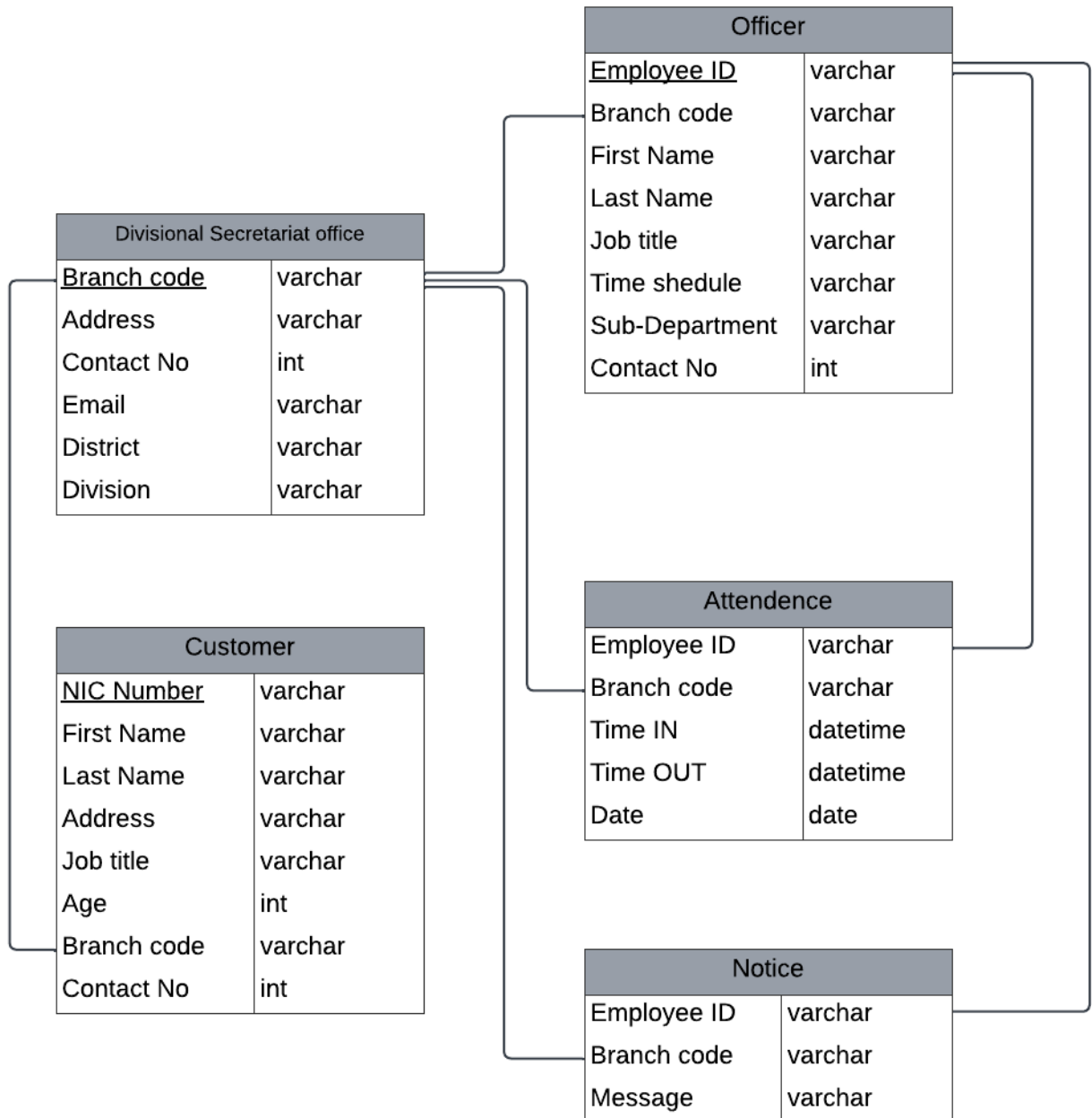
### Level 0



## Level 1

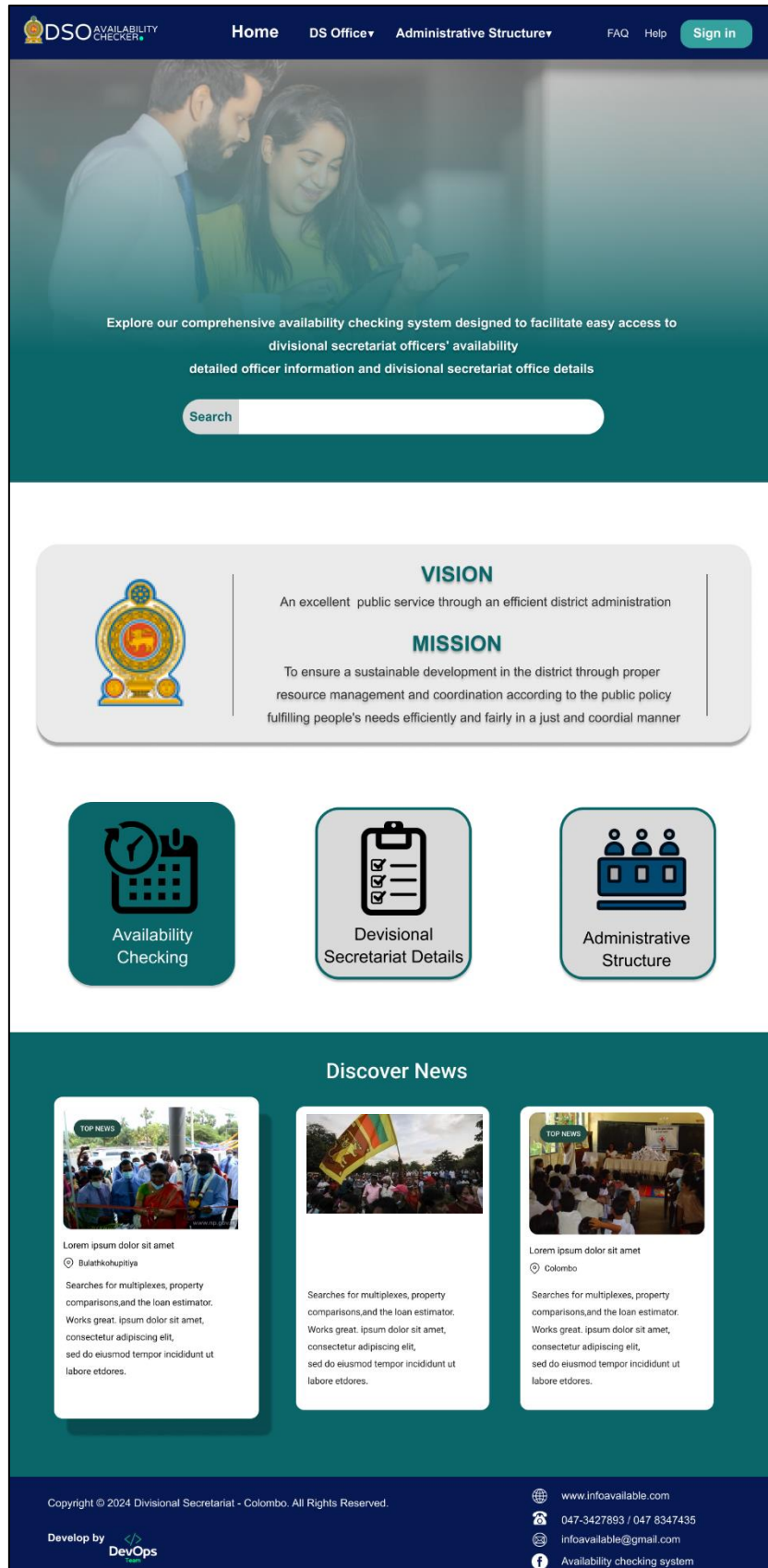


## Database (DB) Diagram

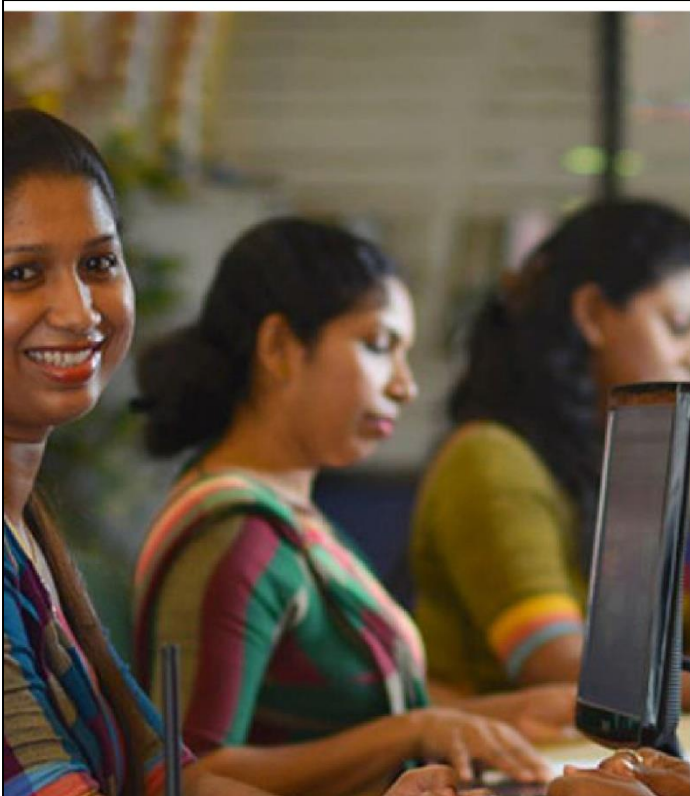


# UI/UX Design

## Home page



## Log in / Sign in page



< Back

### Account Login

If you are already a member you can login with your ID Number and password.

ID Number


Password

☒ Remember me

Register Account

[Dont have an account ? Sign up here](#)

## Register / Sign up page



< Back

### Account Signup

Become a member and enjoy exclusive promotions.

First Name Last Name

ID Number

Division

Phone Number


Email Address

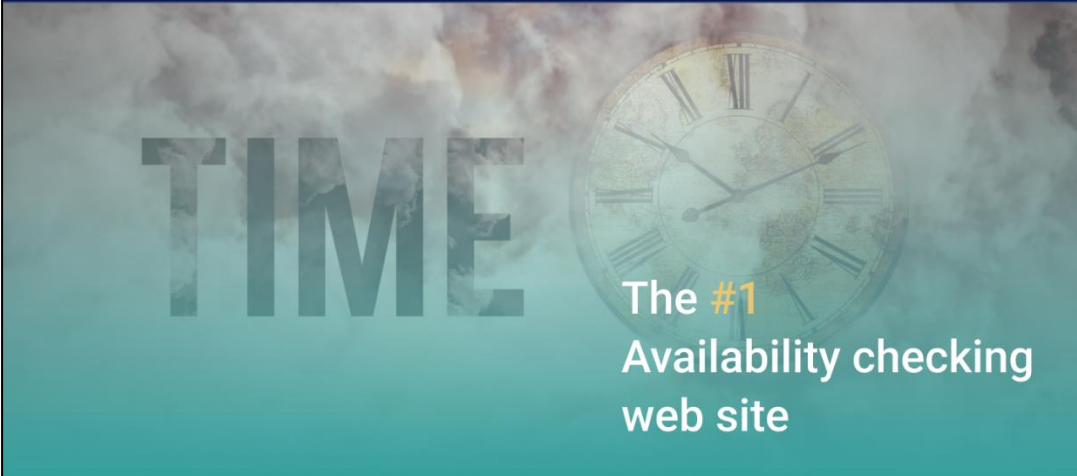
Password

Continue



## Province selection page

[Home](#) [DS Office](#) [Administrative Structure](#) [FAQ](#) [Help](#) [Sign in](#)



# TIME

The #1  
Availability checking  
web site

### Select your province

Western province

North central province

Northern province

North western province

Sabaragamuwa province


Southern province


Uva province


Central province


Eastern province


Copyright © 2024 Divisional Secretariat - Colombo. All Rights Reserved.

Develop by 

 [www.infoavailable.com](http://www.infoavailable.com)


 047-3427893 / 047 8347435

 [infoavailable@gmail.com](mailto:infoavailable@gmail.com)

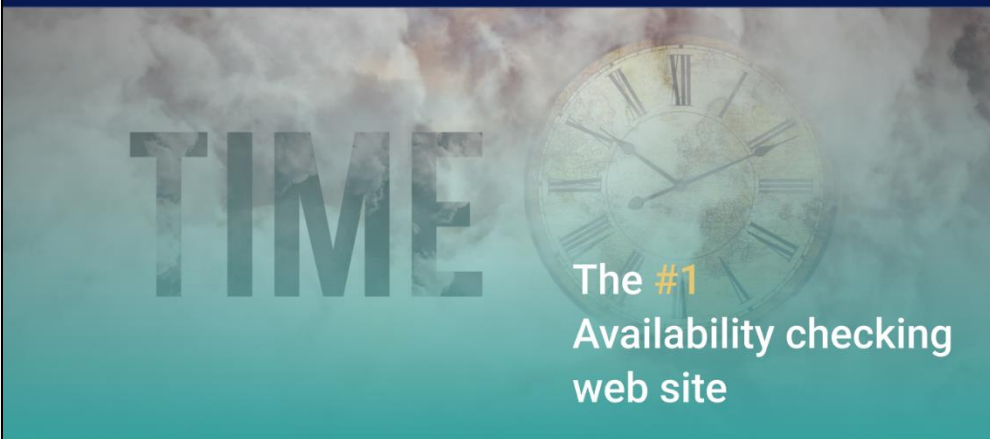
 Availability checking system



## District selection page

 DSO AVAILABILITY CHECKER

[Home](#) [DS Office](#) [Administrative Structure](#) [FAQ](#) [Help](#) [Sign in](#)



# TIME

The #1 Availability checking web site

### Western province

Colombo District

Kaluthara District

Gampaha District

Select your District

North central province

Northern province

North western province

Sabaragamuwa province





Southern province

Uva province

Central province

Eastern province

Copyright © 2024 Divisional Secretariat - Colombo. All Rights Reserved.

 [www.infoavailable.com](http://www.infoavailable.com)  
 047-3427893 / 047 8347435  
 [infoavailable@gmail.com](mailto:infoavailable@gmail.com)  
 Availability checking system

## Division selection and Check availability page

**DSO AVAILABILITY CHECKER** Home DS Office Administrative Structure FAQ Help Sign in

# TIME

Select Division for Check Availability

Western province ► Colombo district


Colombo	011-2273817	colombods@gmail.com	Check Availability
Dehiwala	011-2544677	dehiwalads@gmail.com	Check Availability
Homagama	011-6763817	homagamads@gmail.com	Check Availability
Kaduwela	011-2893817	kaduwelads@gmail.com	Check Availability
Kesbawa	011-0003819	kesbewads@gmail.com	Check Availability
Kolonnawa	011-6783867	kolonnads@gmail.com	Check Availability
Kotte	011-7784456	kotteds@gmail.com	Check Availability
Maharagama	011-2673818	maharagads@gmail.com	Check Availability
Moratuwa	011-8973811	colombods@gmail.com	Check Availability
Padukka	011-2879833	padukkads@gmail.com	Check Availability
Rathmalana	011-4556423	rathmads@gmail.com	Check Availability
Seethawaka	011-2789345	seethawads@gmail.com	Check Availability
Thimbirigasyaya	011-2288817	thibirigasds@gmail.com	Check Availability


Copyright © 2024 Divisional Secretariat - Colombo. All Rights Reserved.

Develop by **DevOps**

[www.infoavailable.com](http://www.infoavailable.com)  
 047-3427893 / 047 8347435  
[infoavailable@gmail.com](mailto:infoavailable@gmail.com)  
 Availability checking system


## Availability showing page of selected Divisional secretariat office


[Home](#)
[DS Office](#)
[Administrative Structure](#)
[FAQ](#)
[Help](#)
[Sign in](#)





officers information  
**Availability checking**

Western province ▶ Colombo district ▶ Colombo division





**Mrs. J.W.S.Kulathunga**  
Divisional secretariat Officer  
**TIME : 8.00 A.M - 4.00 P.M**  
Contact No : 047-2345632  
E-mail : kulathungjw@gmail.com

Available






**Mr. R.M.S.Prasanga**  
Assistant Divisional secretariat Officer  
**TIME : 8.00 A.M - 4.00 P.M**  
Contact No : 047-2345879  
E-mail : kulathungjw@gmail.com

Available






**Mr. N.T.D. Gamage**  
Social Service Officer (Central Government)  
**TIME : 8.00 A.M - 3.00 P.M**  
Contact No : 047-2389077  
E-mail : kulathungjw@gmail.com

Not-working






**Mrs. S.Rameesha Jayathunge**  
Human Resource Development Assistant  
**TIME : 8.00 A.M - 3.00 P.M**  
Contact No : 047-2368934  
E-mail : kulathungjw@gmail.com

Available






**Mrs. C.Heshani Jayathunge**  
Land Development Assistant  
**TIME : 8.00 A.M - 4.00 P.M**  
Contact No : 047-2300883  
E-mail : kulathungjw@gmail.com

Temporary Retirement  

  
\*Update: Meeting





**Mrs. S.S.Priyangika**  
Early Childhood Development Assistant  
**TIME : 8.00 A.M - 4.00 P.M**  
Contact No : 047-2345672  
E-mail : kulathungjw@gmail.com

Available






**Mrs. K.P.Renuka Garusinghe**  
Women Development Officer  
**TIME : 8.00 A.M - 4.00 P.M**  
Contact No : 047-2300112  
E-mail : kulathungjw@gmail.com

Not-working  

  
\*Update: 7 days leave




**Mrs. P.Anuradha Gamage**  
Cultural Development Officer  
**TIME : 8.00 A.M - 3.00 P.M**  
Contact No : 047-2344326  
E-mail : kulathungjw@gmail.com

Available





**Mrs. M.P.Deshitha Samarakoon**  
Rural Development Officer  
**TIME : 8.00 A.M - 4.00 P.M**  
Contact No : 047-2333671  
E-mail : kulathungjw@gmail.com

Temporary Retirement  

  
\*Update: Field visit

Read more... >>


Copyright © 2024 Divisional Secretariat - Colombo. All Rights Reserved.

Develop by  DevOps

[www.infoavailable.com](#)  
047-3427893 / 047 8347435  
[infoavailable@gmail.com](#)  
Availability checking system

## Administrator Structure page

(When click the Administrative division section)


[Home](#)
[DS Office▼](#)
[Administrative Structure▼](#)
[FAQ](#)
[Help](#)
[Sign in](#)

### Administrative Division

**Goal** Strengthening the organizational structure through a satisfied staff.

**Main Functions**

- Co-signing the certificate of residence and character of the Grama Niladhari.
- Co-signing the certificate of residence and character of the Grama Niladhari.
- Income certificates
- Value certificates
- Liquor licenses
- Mortgage licenses
- Tree felling permits
- Timber transport permits
- Animal transport licenses
- Sand / Soil Transport Application Forms
- Presidential Assistance
- National Identity Card Services
- Overseas Employment Family Background Reports
- Registration of Business Names
- Issuing vehicle revenue licenses

[Social Services Division](#)


[Planning Division](#)





[Accounts Division](#)

[Registrar Division](#)

[Pension Division](#)

Copyright © 2024 Divisional Secretariat - Colombo. All Rights Reserved.

Develop by 

 [www.infoavailable.com](http://www.infoavailable.com)  
 047-3427893 / 047 8347435  
 [infoavailable@gmail.com](mailto:infoavailable@gmail.com)  
 Availability checking system

## Menu-bar

