



SRI LANKA INSTITUTE OF ADVANCED TECHNOLOGY EDUCATION

Higher National Diploma in Information Technology

HNDIT 4052

Project Report (Individual)

Baby Clinic Management system

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Prepared By:

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DECLARATION

I do hereby declare that the work reported was exclusively carried out by me under the supervisor of Project Supervisor Ms.K.G.D.De.A. Wijesinghe of the Department of Information Technology, Advanced Technological Institute-Kurunegala. It describes the result of my own and independent work except where due references have been made in the text. No part of this project report has been submitted earlier or concurrently for the same or any other diploma.

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Signature:

Date: 2024/06/10.....

ABSTRACT

This document describes all the features and procedures followed during the development of the Baby Clinic Management System. This project developed by laravel and database as MySQL. It details the project's development process, primary requirements, features, functionalities, and the methods employed to achieve these objectives.

The purpose of the Baby Clinic Management System project is to address various issues faced by clinics that rely on manual operations. This aims to modernize and optimize the clinic's operations by replacing manual processes with automated ones. The system seeks to eliminate paperwork, reduce human errors, and provide healthcare professionals with timely access to accurate patient information.

The primary purpose of the Clinic Management System is to enhance overall clinic performance by improving operational efficiency through the automation of administrative tasks, leading to significant time and cost savings.

3.EXECUTIVE SUMMARY

3.1. Brief overview of the project

I decided this project for the baby clinic management system. The problem of opportunity that the project addresses revolves around the management of baby clinics.

The Baby Clinic Management System aims to revolutionize the management of baby clinics by digitizing patient records, appointment scheduling, and enhancing operational efficiency. This document outlines the requirements for developing a web application using Laravel, HTML, CSS, javascript, and MySQL.

This is very valuable for many issues like saving time and manual work in this clinic by making this project. The information of several lines goes to the MOH and this goes up to the district levels. Parents can also get many benefits from this website, including the ability to easily access and connect with all the child's information and thereby save time. The primary purpose of the Clinic Management System is to modernize and optimize the clinic's operations by replacing manual processes with automated ones. This shift towards digitalization seeks to eliminate paperwork, reduce human errors, and provide healthcare professionals with timely access to accurate patient information, ultimately enhancing overall clinic performance. improved operational efficiency through automation of administrative tasks, leading to time and cost savings.

3.2.Key objectives and outcomes

- Streamline administrative tasks for appointment scheduling and patient registration to improve operational efficiency.
- Enhance patient care by providing centralized access to medical records, vaccination schedules, and growth charts.
- Improve communication and collaboration among healthcare providers, parents, and other stakeholders.
- Ensure compliance with regulatory standards and data privacy requirements.
- Facilitate data-driven decision-making through comprehensive reporting and analytics capabilities.

3.3.Summary of major finding and result

- Operational Efficiency: Streamlined administrative tasks, including appointment scheduling and patient registration, significantly improved overall operational efficiency.
- Enhanced Patient Care: Centralized access to medical records, vaccination schedules, and growth charts greatly enhanced the quality of patient care.
- Improved Communication: Communication and collaboration among healthcare providers, parents, and other stakeholders were markedly improved.
- Regulatory Compliance: Ensured adherence to regulatory standards and data privacy requirements, maintaining high compliance levels.

4.INTRODUCTION

4.1.Background and Information

Currently this clinic is maintaining manual to store and manage data. The Baby clinic management system will include the following key features: The Midwife will register parents, children, inform special message, provide vaccination records, etc. and the child's guardian can log in through this web application and access all the details of the child, and more about the child. Through this web site, you can get a great services like recording the steps, seeing the growth clearly through bar charts and sending feedback.

- Registration:** Capture and maintain patient demographics, contact information, and medical history.
- Medical Records Management:** Store and manage including vaccination schedules, growth charts, and medical notes.
- Parent Portal:** a secure portal for parents to access their child's health information, schedule appointments, and communicate with healthcare providers.
- Appointment Reminders:** automated reminders via email, SMS, to reduce missed announcement.
- Feedback:** Facilitate communication between staff members and parents for ,

4.2.Purpose of the project

The purpose of the Baby Clinic Management System project is to create a comprehensive, user-friendly web application that enhances the efficiency and quality of care in pediatric healthcare settings. The system aims to:

- **Streamline Administrative Processes:** Simplify and automate tasks such as patient registration, appointment scheduling, and management of patient demographics and medical history.
- **Enhance Patient Care:** Provide centralized access to essential medical records, including vaccination schedules, growth charts, and medical notes.
- **Facilitate Feedback and Interaction:** Enable effective communication between clinic staff and parents through a feedback mechanism, ensuring that concerns and suggestions are promptly addressed.

By integrating these key features, the Baby Clinic Management System aims to provide a holistic and efficient solution for managing pediatric healthcare services, benefiting healthcare providers, parents, and children alike.

4.3.Scope of the project

The Baby clinic management system will include the following key features: The Midwife will register parents, children., provide vaccination records, etc. and the child's guardian can log in the through this web application and access all the details of the child, and more about the child. Admin can inform special message and view all report. Through this web site, you can get a great services like recording the steps, seeing the growth clearly through bar charts and sending feedback.

- Registration: Capture and maintain patient demographics, contact information, and medical history.
- Medical Records Management: Store and manage including vaccination schedules, growth charts, and medical notes.
- Parent Portal: a secure portal for parents to access their child's health information, schedule appointments, and communicate with healthcare providers
- Feedback: Facilitate communication between staff members and parents for

4.4.Project objectives

- Streamlining administrative tasks such as appointment scheduling, patient registration, improve operational efficiency.
- Enhancing patient care through centralized access to medical records, vaccination schedules, growth charts, and other critical healthcare information.
- Improving communication and collaboration between healthcare providers, parents, and other stakeholders to ensure timely and accurate information exchange.
- Ensuring compliance with regulatory standards and data privacy requirements to safeguard patient confidentiality and maintain trust in clinic services.
- Facilitating data-driven decision-making and performance monitoring through comprehensive reporting and analytics capabilities

5.REQUIREMENTS ANALYSIS

5.1Functional Requirements

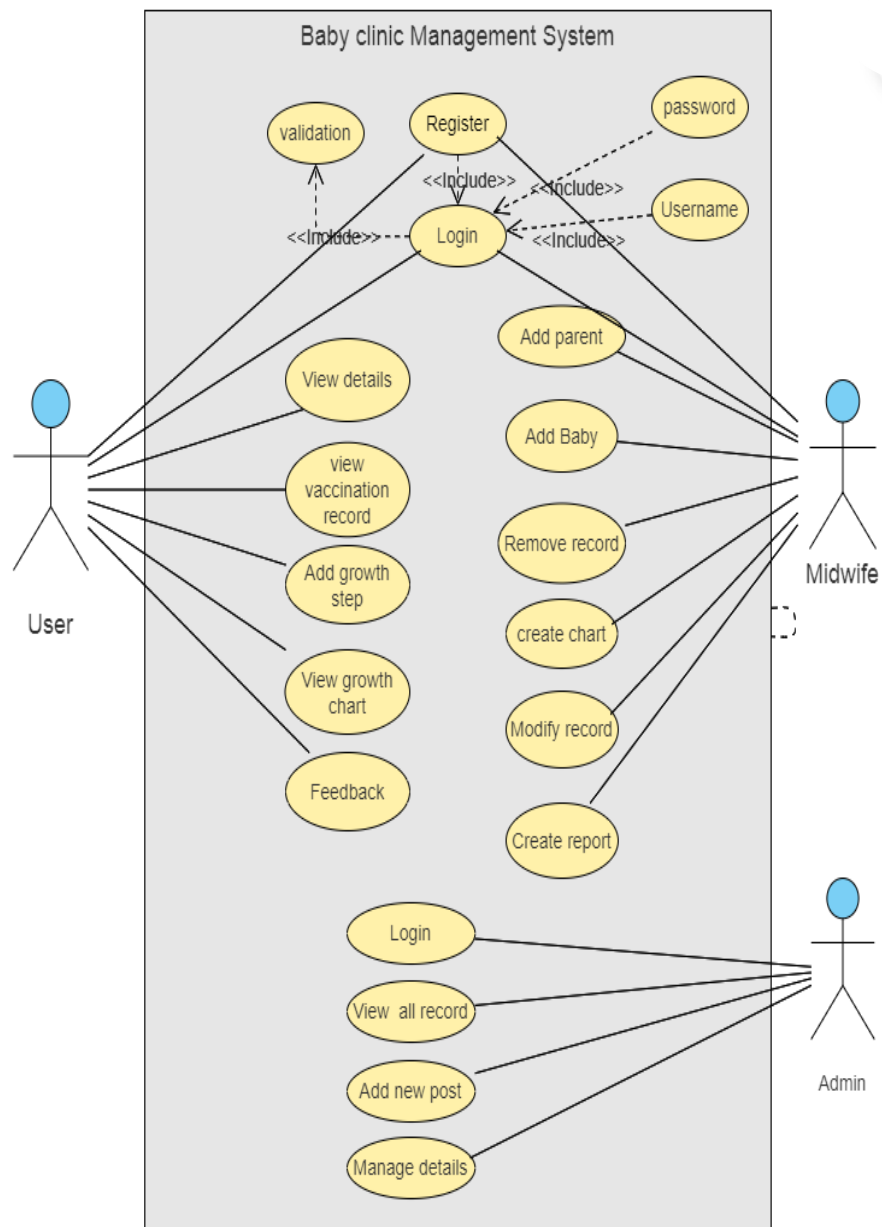
The completed web will provide the following functionality to,

- midwife will include the ability to:
 - Midwife Registration: Ability for midwives to register parents and children.
 - Guardian Login: Secure login for child guardians to access the system.
 - Admin Access: Admins can manage users, view reports, and send messages.
- User will include all the privileges to interact with the web and with some special privileges:
 - Manage Personal Profile (Edit, Manage, Delete)
 - Can login.
 - Can view baby's all data.
 - Can get special news.
 - Can view baby's want instructions in website.
- Admin will include the ability to:
 - Special notifications will be made to all clinics.
 - Can login.
 - MOH Admin can view the list of registered users and view the all clinic report.
- Medical Records Management
 - Vaccination Records: Store and update vaccination schedules.
 - Growth Charts: Record and visualize the child's growth using bar charts.
 - Medical Notes: Maintain and access medical notes for each patient.

5.3.Non-Functional Requirements

- Functionality
- Usability
- Reliability
- Supportability
- Security
- Efficiency
- Accuracy

5.4. Use Case Diagram



5.4.Requirements Specifications.

Under the system analysis, we had to gather what are the users' requirements, expectations and the priorities for the solution to their problem. After gathering users' requirements, we observed how the current system works, what the special features of it are and what the drawbacks of the current system were. After gathering user's requirements, we had to decide what is needed from the new system and how to fulfill users' requirements.

Advantages of web applications

- Less expensive
- Powerful searching
- More accuracy
- Easy generate report
- No specific training
- It is very easy to manage historical data in database.
- Can use anytime anywhere if u have a mobile phone.
- Provide data back
- Time saving.

5.4.1.System Specification

5.4.1.1.Software specification

- Laravel 10.
- XAMMP
- HTML
- CSS
- javaScript
- BOOSTRAP
- Windows 8
- VS Code
- Github

5.4.1.2.Hardware specification

- RAM 4GB
- ABOUT CORE i5 Processor
- Monitor
- connected to internet

6.SYSTEM DESIGN

6.1. Architectural design

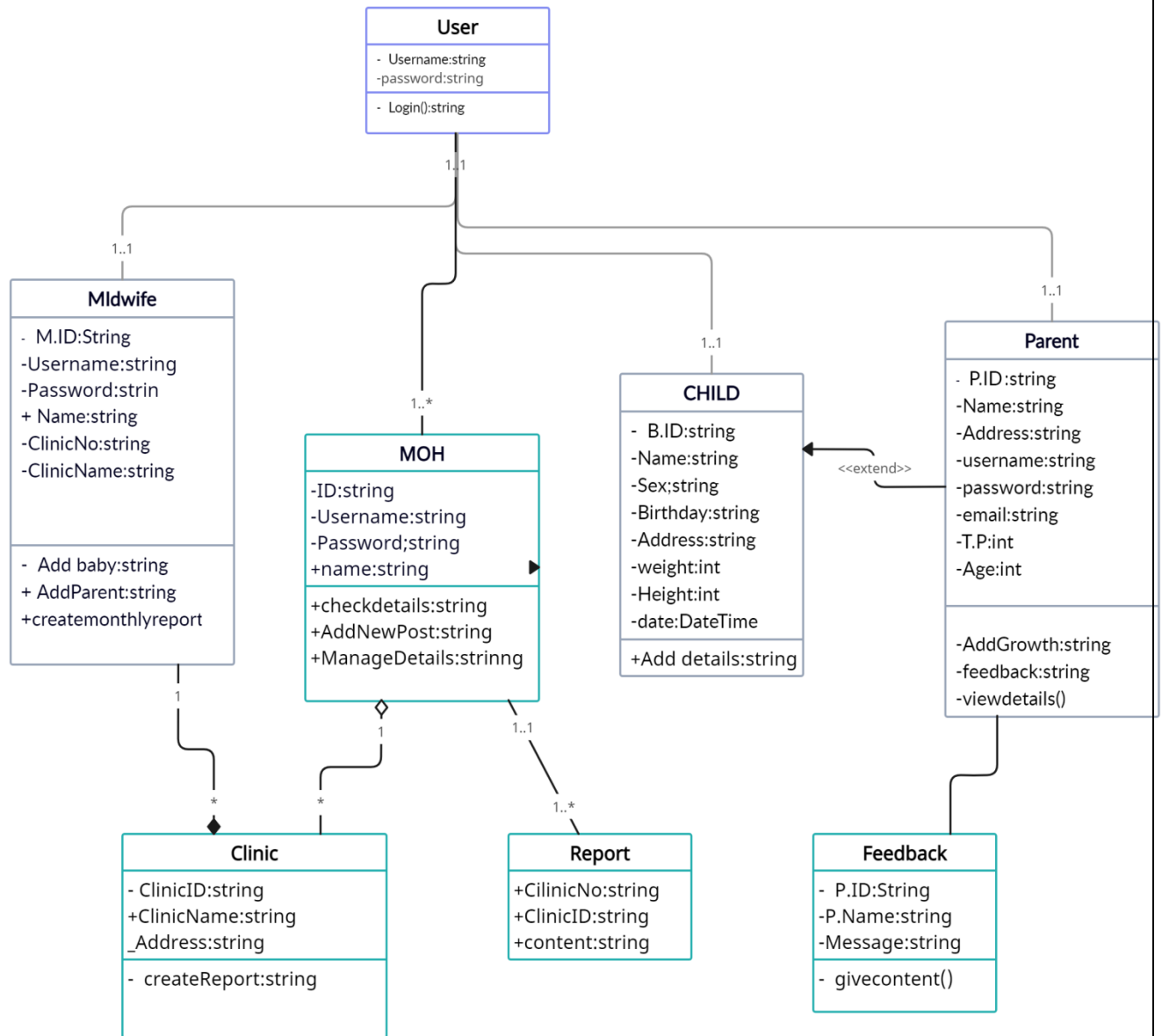
System design is the process of defining the elements of a app such as the architecture, modules and components, the different interfaces of those components and the data that goes through that app.

The project will follow the Agile software development methodology, allowing for iterative development and frequent feedback from stakeholders. The development process include requirements gathering, system design, implementation, testing, and deployment phases.

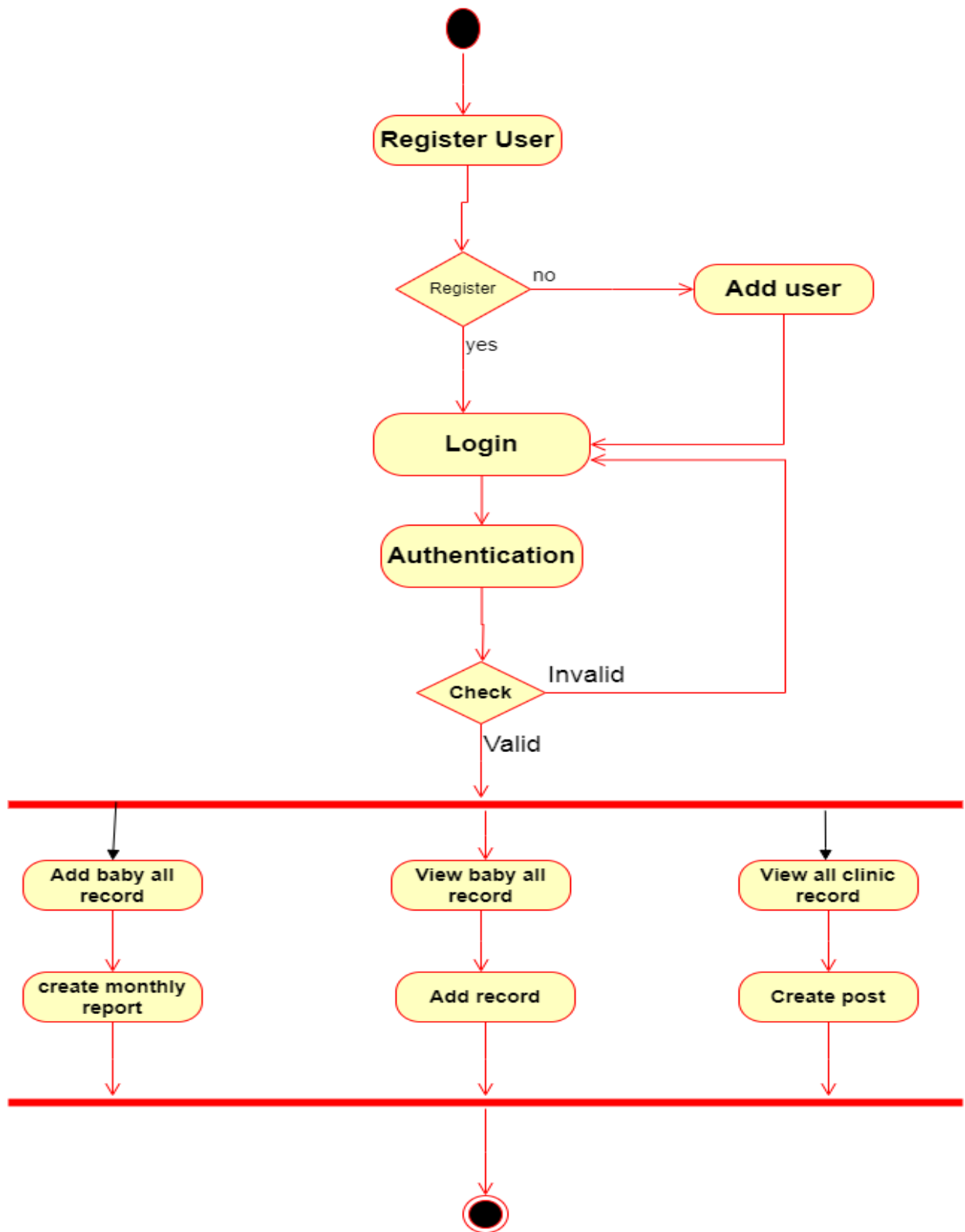
- A system design that outlines the components, modules, and data flows of the Baby Clinic Management System.
- The user interface to be intuitive, user-friendly, and accessible on various devices including desktops, tablets, and smartphones.
- Database schemas to efficiently store and retrieve patient information, appointment data, and clinic records.

6.2.Detailed Design

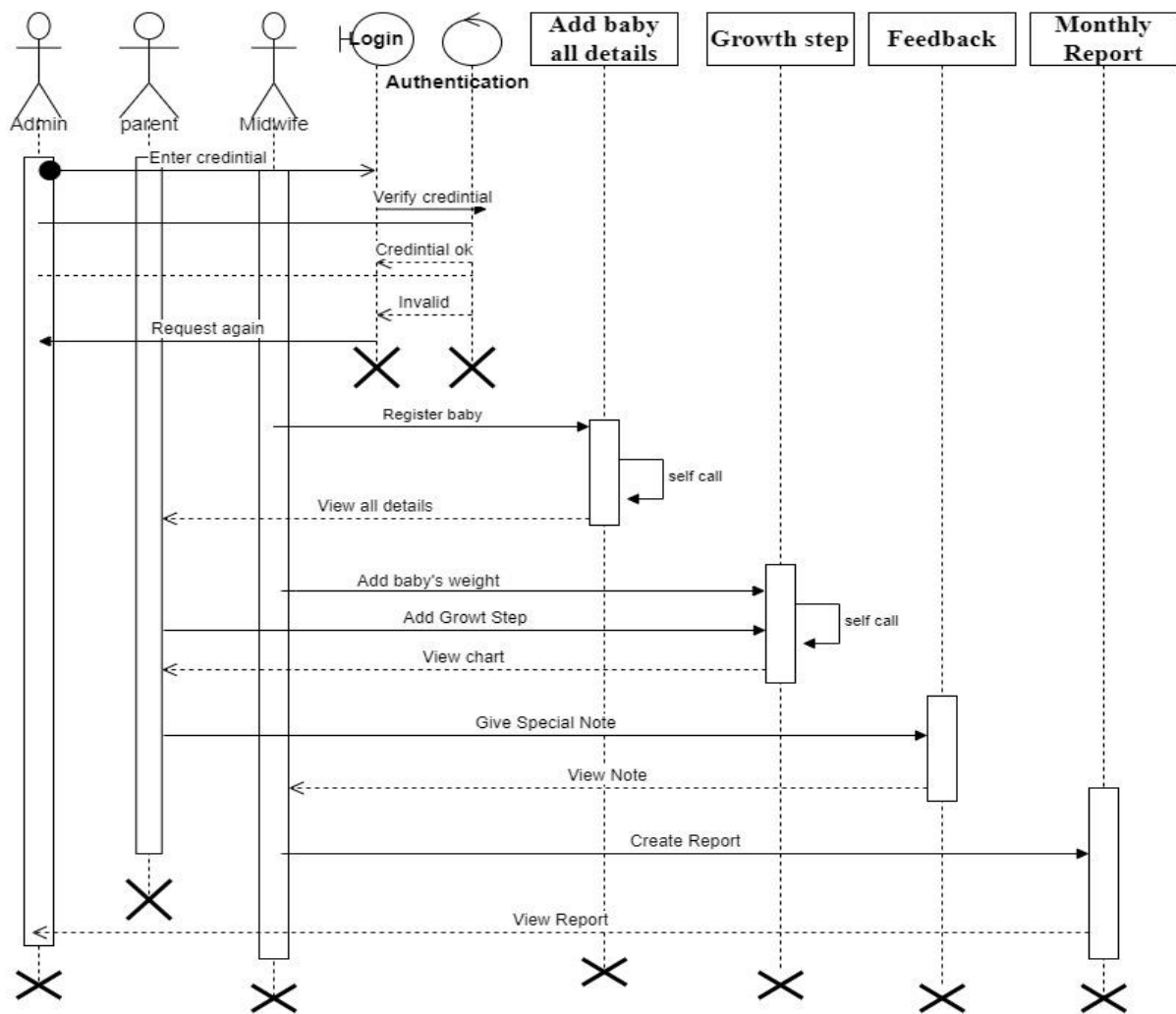
6.2.1.1.Class Diagram



6.2.1.2. Activity Diagram



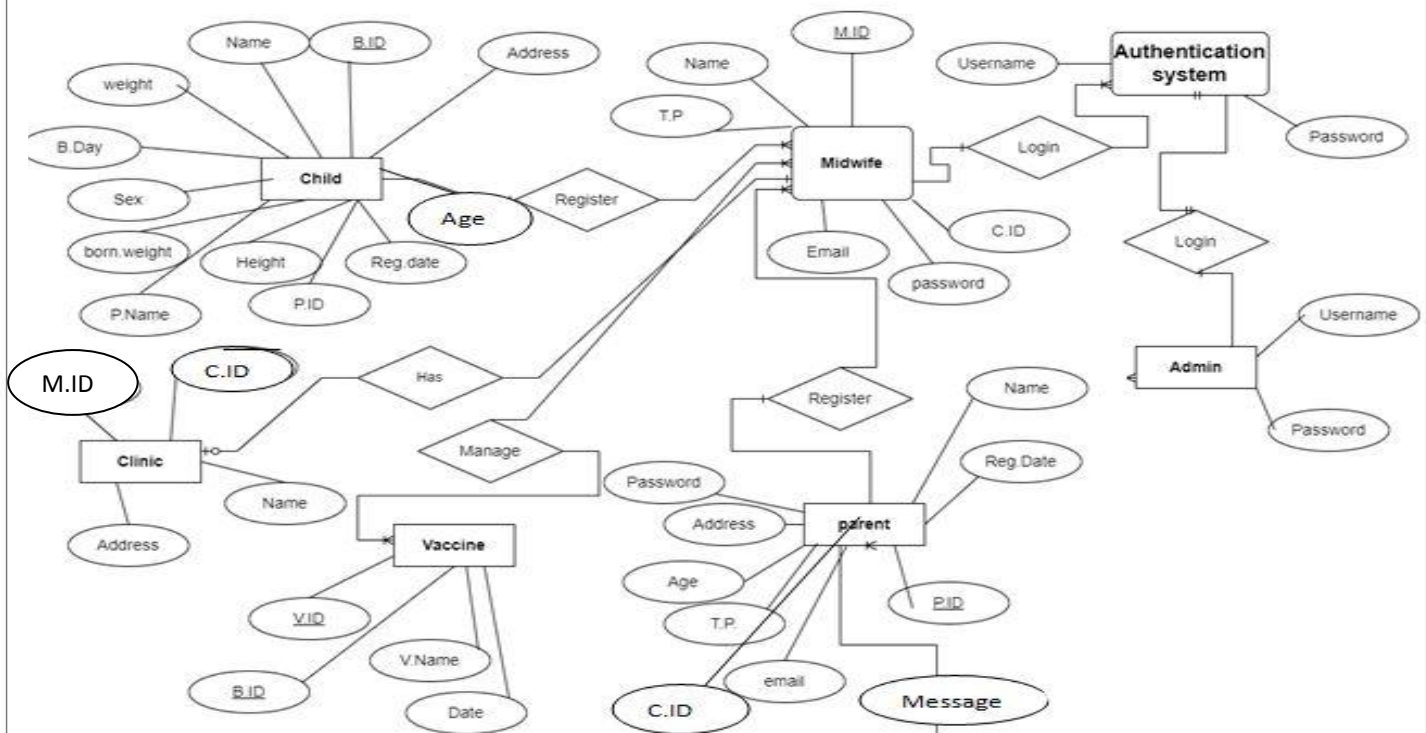
6.2.1.3. Sequence Diagram



6.2.2.Database Design

A Database models a real-world enterprise. Database is a shared collection of logically related data and a description of this data. Using Entity Relationship diagram, you can model a database design.

6.2.2.ER Diagram

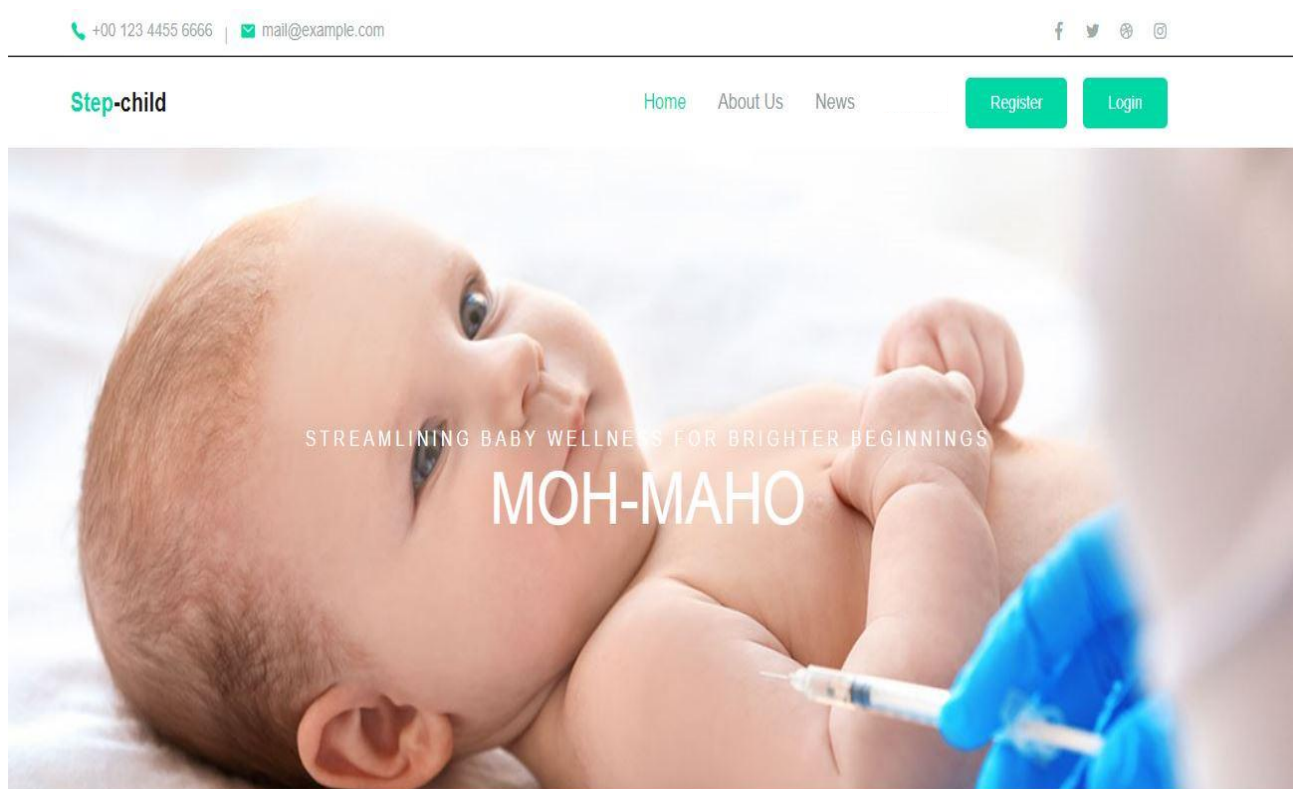


6.2.3. User Interface

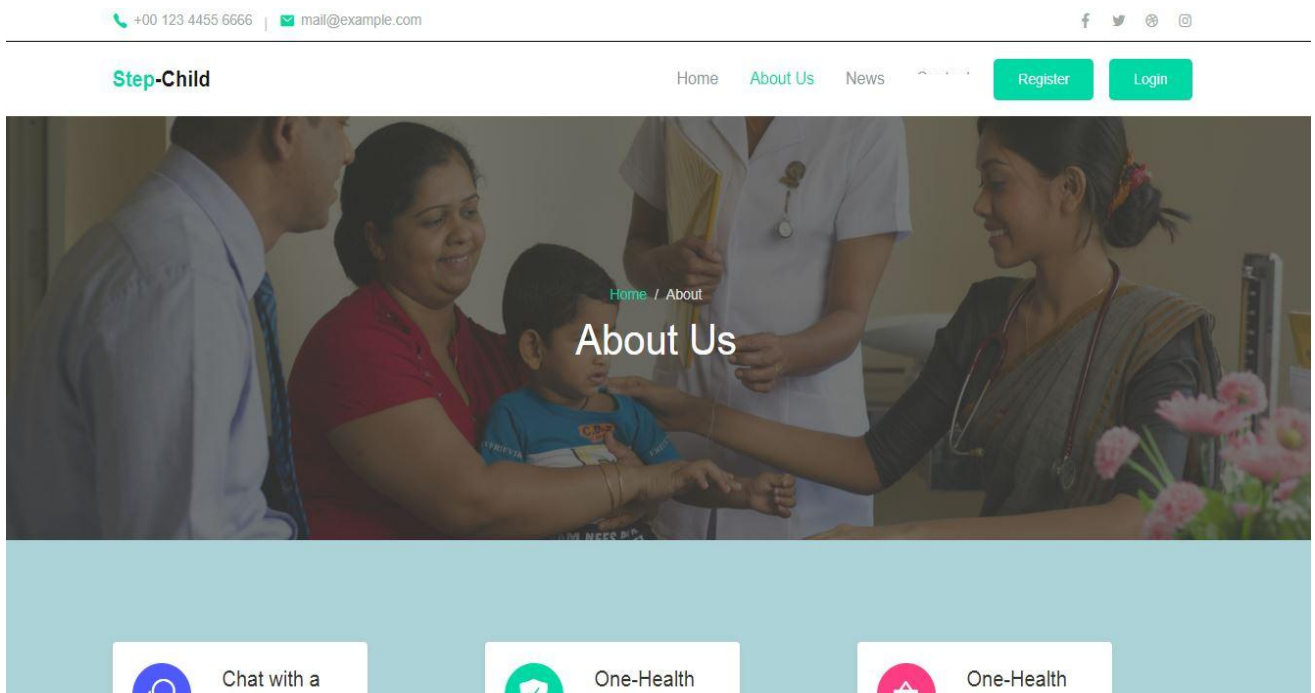
Designing interfaces is a very important fact of my web, because it is very user friendly and attractive. The web design phase produces a design specification for the new web. After analyzing requirements, it is needed to design interfaces and thereafter design the database. Then it makes much easier to implement the app.

When designing interfaces, it is necessary to design user friendly interfaces. Otherwise, it may get many difficult for a user to work with the web. When designing the interfaces of this web we mainly focused towards the colors. We used a single theme for the whole web and applied colors that matching for the web. The interfaces are not too decorated and applied simple styles.

6.2.3.1. Home page



6.2.3.2.About Page



6.2.3.3.Login Interface

The screenshot shows a 'Login' form centered on a light blue background. The form has a white background and a subtle drop shadow. It contains the following elements: the title 'Login' in a large, bold, black font; an 'Email' label above a text input field containing 'admin@gmail.com'; a 'Password' label above a text input field filled with dots; a 'Forgot Password?' link in a smaller, blue font; and a blue 'Submit' button at the bottom.

6.2.3.4.Register Interface

Registration

Mid wife Only Can Register Here !

Clinic Name

Email

Contact

Address

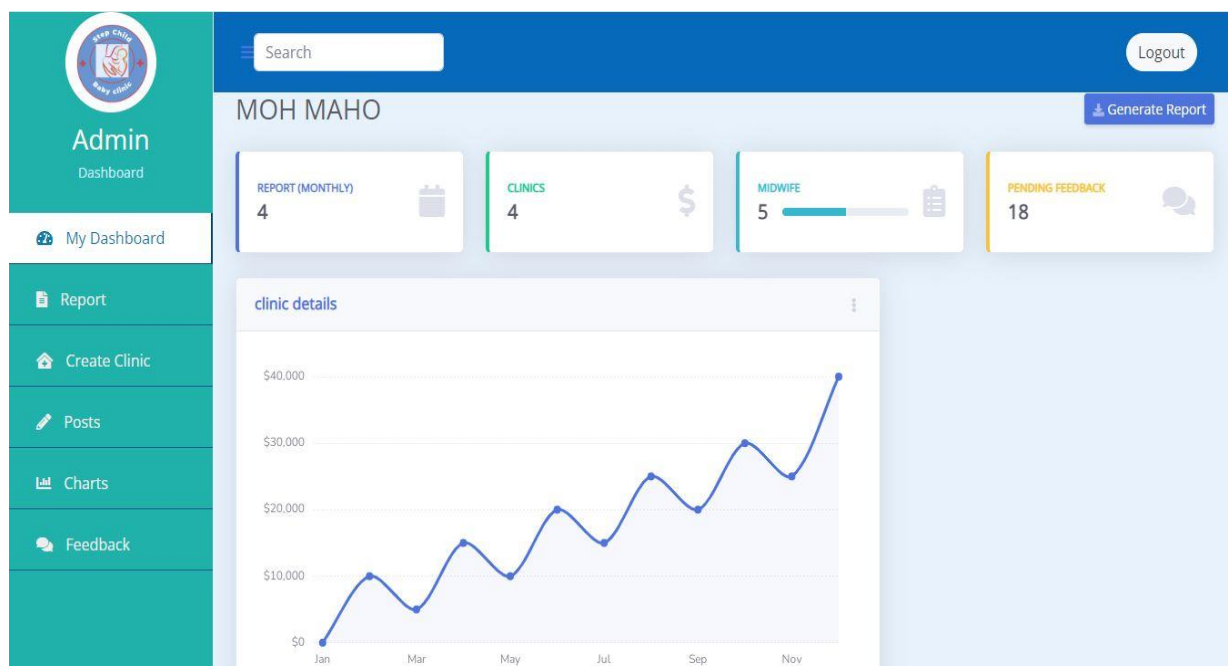
Password

Confirm Password


Submit

Already have an account? [Login](#)

6.2.3.5.Admin Dashboard




6.2.3.6. Midwife Dashboard



Midwife Dashboard
Daladagama Clinic

[Home](#)
[Add Parent](#)
[Add Baby](#)
[Add Vaccine](#)
[Add Growth Details](#)
[Report](#)
[Log Out](#)

Search.. 

Parent Register

Parent Name

Parent Address

phone


Email

password

Register

#	Parent Id	Parent Name	Clinic Id	Address	Reg_date	Email	Phone	Action
1	2	mrs.ruvini	5	maho	2024-06-06 01:36:12	ruvi@gmail.com	717325565	Edit Delete


6.2.3.7. User Interface



Daladagama Clinic
User Profile

[Home](#)
[My Account](#)
[Baby Details](#)
[Vaccine Details](#)
[Growth Chart](#)
[LogOut](#)

← WELCOME YOUR CLINIC



My Account

Parent Id

1

Parent Name

John Doe

Clinic Id

101

Address

123 Main St, Anytown

Reg Date

15

6.3.Design Consideration

This website has an interface for login by user and administrator. Here an administrator has a separate username and password.

- For example: Administrator login
User name: admin
Password:12345

The midwife can register and log in separately. The parent is registered by the midwife. Then parents can also log in.

- Midwife login
 - User name:ameesha@gmail.com
 - Password:amee1234
- User login
 - User name:ruvi@gmail.com
 - Password:ruvi3344

System design is the process of defining the elements of a app such as the architecture, modules and components, the different interfaces of those components and the data that goes through that app.

The project will follow the Agile software development methodology, allowing for iterative development and frequent feedback from stakeholders. The development process include requirements gathering, system design, implementation, testing, and deployment phases.

- A system design that outlines the components, modules, and data flows of the Baby Clinic Management System.
- The user interface to be intuitive, user-friendly, and accessible on various devices including desktops, tablets, and smartphones.
- Database schemas to efficiently store and retrieve patient information, appointment data, and clinic records.

7.IMPLEMENTATION

7.1.Development Environment

The implementation stage involves careful planning, investigation of the existing app and its constraints on implementation, designing of methods to achieve changeover and evaluation of changeover methods. Laravel is a web application framework used for PHP development. It is designed to make the development process more straightforward and efficient by providing a range of tools and resources for common tasks. Laravel is a web application framework which is used in PHP development. It follows the Model-View-Controller (MVC) architectural. The primary goals of Laravel are to be elegant, expressive, modular, secure, and developer-friendly, offering a robust set of tools and features including an ORM (Eloquent), a templating engine (Blade), and a routing system.

7.2.Technologies Used

Front-end tools-The tools which are used to design the user interfaces of the application

- Vue.js: Often used with Laravel due to its ease of integration.
- Bootstrap: For responsive design and pre-built components.
- Tailwind CSS: A utility-first CSS framework for custom designs.
- Sass: For advanced CSS with variables, nested rules, and mixins.
- Webpack : A module bundler to compile JavaScript modules.
- Laravel Mix : A wrapper around Webpack to make asset compilation simple.
- jQuery : For DOM manipulation and AJAX requests.
- Npm : For managing JavaScript packages.

Back-end tools:

The tools which are used to design data base (storage design) of the application

- Laravel: A PHP framework for building robust web applications.
- PHP: The primary language for Laravel development.
- MySQL: A relational database management system

Software used:

- Laravel 10
- Gantt to create Gantt chart.
- Draw.io, Canva (online) software used for draw the class diagram, use case diagram.
- ERD Plus used for draw the ER Diagram.

7.3.Implmentation Details

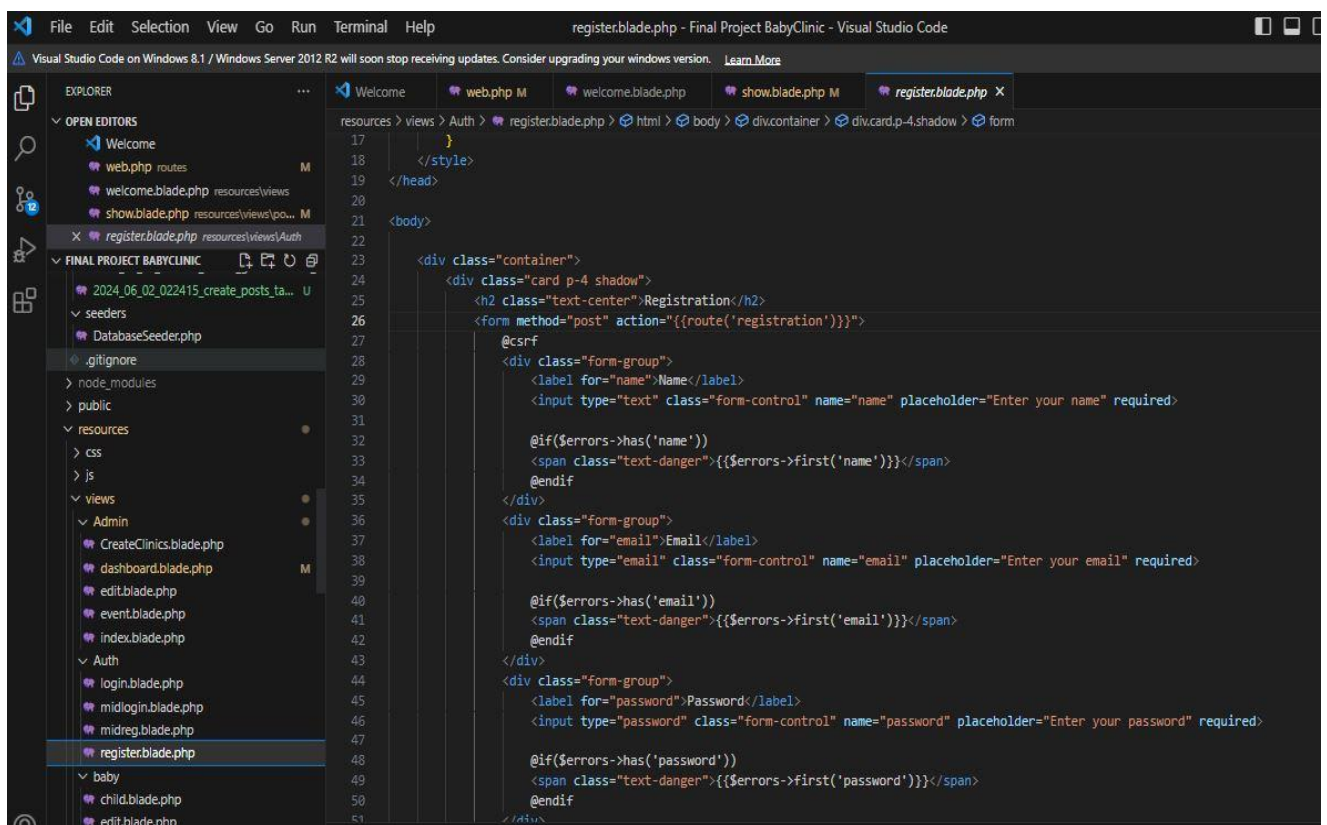
Implementation plane:

- Deciding on project size and time frame.
- Identify feasible and measurable objectives and goals.
- Develop a method for monitoring project implementation progress.

The Baby Clinic Management System aims to modernize and streamline the operations of a baby clinic by automating administrative tasks and reducing reliance on manual processes.

This system offers several benefits to both the clinic staff and the parents, leading to significant time and cost savings.

7.4.Code snippets



```
registerblade.php - Final Project BabyClinic - Visual Studio Code
Visual Studio Code on Windows 8.1 / Windows Server 2012 R2 will soon stop receiving updates. Consider upgrading your windows version. Learn More

EXPLORER
  OPEN EDITORS
    Welcome
    web.php routes M
    welcome.blade.php resources\views M
    show.blade.php resources\views\po... M
    X register.blade.php resources\views\Auth
  FINAL PROJECT BABYCLINIC
    2024_06_02_022415_create_posts_ta... U
    seeders
    DatabaseSeeder.php
    .gitignore
    node_modules
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        CreateClinics.blade.php
        dashboard.blade.php M
        edit.blade.php
        event.blade.php
        index.blade.php
        login.blade.php
        midlogin.blade.php
        midreg.blade.php
        register.blade.php
        baby
        child.blade.php
        edit.blade.php

resources > views > Auth > register.blade.php > html > body > div.container > div.card.p-4.shadow > form
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<?php
</style>
</head>
<body>
<div class="container">
  <div class="card p-4 shadow">
    <h2 class="text-center">Registration</h2>
    <form method="post" action="{{route('registration')}}">
      @csrf
      <div class="form-group">
        <label for="name">Name</label>
        <input type="text" class="form-control" name="name" placeholder="Enter your name" required>
        @if($errors->has('name'))
          <span class="text-danger">{{ $errors->first('name') }}</span>
        @endif
      </div>
      <div class="form-group">
        <label for="email">Email</label>
        <input type="email" class="form-control" name="email" placeholder="Enter your email" required>
        @if($errors->has('email'))
          <span class="text-danger">{{ $errors->first('email') }}</span>
        @endif
      </div>
      <div class="form-group">
        <label for="password">Password</label>
        <input type="password" class="form-control" name="password" placeholder="Enter your password" required>
        @if($errors->has('password'))
          <span class="text-danger">{{ $errors->first('password') }}</span>
        @endif
      </div>
    </form>
  </div>
</div>
</body>
</html>
```

7.4.1. Register code


```

13 <div class="container mt-5" style="width:900px;">
14 <div class="row justify-content-center">
15 <div class="col-md-6">
16 <div class="card p-4 shadow">
17 <h2 class="text-center">Login</h2>
18
19 @if(Session::has('success'))
20 <div class="alert alert-success">{{Session::get('success')}}</div>
21 @endif
22 <form method="post" action="{{route('login.post')}}">
23 @csrf
24 <div class="form-group">
25 <label for="email">Email</label>
26 <input type="email" class="form-control" name="email" placeholder="Enter your email" required>
27
28 @if($errors->has('email'))
29 <span class="text-danger">{{ $errors->first('email') }}</span>
30 @endif
31 </div>
32 <div class="form-group">
33 <label for="password">Password</label>
34 <input type="password" class="form-control" name="password" placeholder="Enter your password" required>
35 <small class="form-text text-muted"><a href="{{url('forgot-password')}}">Forgot Password?</a></small> <!-- A
36
37 @if($errors->has('password'))
38 <span class="text-danger">{{ $errors->first('password') }}</span>
39 @endif
40 </div>
41 <button type="submit" class="btn btn-primary">Submit</button>
42 </form>
43 <p class="mt-3 text-center"><a href="{{url('registration')}}">Registration</a></p>
44 </div>
45 </div>

```

7.4.2.Login Interface

```

12 class BabyController extends Controller
13 {
14     protected $baby;
15     protected $employee;
16     public function __construct()
17     {
18         $this->baby = new Baby();
19         $this->employee = new Employee();
20     }
21     public function index()
22     {
23         $response['babies'] = $this->baby->join('employees', 'babies.emp_id', '=', 'employees.id')->select('babies.*', 'employees.emp_name')->get();
24         $response['employees'] = $this->employee->where('clinic_id', Auth::id())->get();
25         return view('baby.child')->with($response);
26     }
27     public function store(Request $request)
28     {
29         // Validate the incoming request data
30         $request->validate([
31             'b_name' => 'required',
32             'parent_id' => 'required',
33             'address' => 'required',
34             'b_age' => 'required',
35             'gender' => 'required',
36             'born_weight' => 'required',
37             'bdy' => 'required|date'
38         ]);
39
40         // Create a new baby record in the database
41         $this->baby->create([
42             'clinic_id' => Auth::id(),
43             'emp_id' => $request->input('parent_id'),
44             'b_name' => $request->input('b_name'),
45             'b_age' => $request->input('b_age'),
46             'address' => $request->input('address'),
47             'born_weight' => $request->input('born_weight'),
48             'bdy' => $request->input('bdy')
49         ]);
50     }
51 }

```

7.4.3.BabyController code

8.TESTING

The purpose of testing is to discover errors. Testing is the process of trying to discover every conceivable fault or weakness in this product. It provides a way to check the functionality of components, sub-assemblies or a finished product.

8.1.Types of testing conducted

A strategy for software testing must accommodate low-level tests that are necessary to verify that a small source code segment has been correctly implemented as well as high level tests that validate major system functions against customer requirements. A strategy must provide guidance for the practitioner and a set of milestones for the manager. Because the steps of the test strategy occur at a time when deadline pressure begins to rise, progress must be measurable and problems must surface as early as possible. Following testing techniques are well known and the same strategy is adopted during this project testing.

8.1.1.Unit testing:

Unit testing focuses verification effort on the smallest unit of software design the component or module.

8.1.2.System testing:

System testing is actually a series of different tests whose primary purpose is to fully exercise the computer-based system. Below we have described the two types of testing which have been taken for this project. It is to check all modules worked on input basis. If you want change any values or inputs will change all information. So specified input is must. Conducted using Selenium for automated testing of the user interface.

8.1. 3.Performance Testing:

Performance testing is designed to test the run-time performance of board within the context of an integrated system. Performance testing occurs throughout all steps in the testing process. Even at the unit level, the performance of an individual module may be assessed as white-box tests are conducted.

8.1.4.User Acceptance Testing

Validate the application against the requirements and ensures it meets the needs of end users. Conducted with a group of representative users who use the application and provide feedback.

8.2.Tset Cases

8.2.1.Test Case for Login

Test case name/ID: 001
Test case Type: Functional Test case
Requirement No: 1
Module: Admin Login
Status: Pass/ Fail
Pre-Condition: Complete Registration.
Test Data: Email – admin@gmail.com ,Password-admin123
Summary: To check the functionality of login
Author: G.M.H.R.Wijebandara.
Reviewed By: G.M.H.R.Wijebandara.
Tested By: G.M.H.R.Wijebandara.
Date: 31/05/2024

Step no	Description	Inputs	Expected result	Actual result	Status
1	Open web and Click Login Button		Login page of the system must be display	As expected,	Pass
2	Enter Email				
	Valid	admin@gmail.com	Accept	Access is complete	Pass
	Blank		Error Message "Enter the Email"	Not as expected	Fail
3	Enter the "password"				
	Valid	admin1213	Accept	Access is complete	Pass
	Blank		Error Message "Enter Password".	Not as expected	Fail
4	After enter the both inputs then click on "login" button				
	Correct		Login Successful	Access is complete	Pass
	Incorrect		Login Failed "Check Username and Password"	Not as expected	Fail

Test Case for Login

8.2.2.Test Case for Midwife Register

Test case name/ID: 002
Test case Type: Functional Test case
Requirement No: 1
Module: Register the midwife
Status: Pass/Fail
Pre-Condition: Open the web
Test Data: Clinic name-ambanpola Name-kanthi,
Email – kanthi@gmail.com ,Password-
kanthi123, Confirm Password- kanthi123
Summary: Check the Registration form
Author: G.M.H.R.Wijebandara.
Reviewed By: G.M.H.R.Wijebandara.
Tested By: G.M.H.R.Wijebandara.
Date: 31/05/2024

Step No	Description	Inputs	Expected Result	Actual Result	Status
1	Open the web and click Register button		Register page of the system must be display	As expected,	Pass
2	Enter the Clinic name-				
	Valid	ambanpola	Accept	Access is complete	pass
3	Enter Name				
	Valid	kanthi	Accept	Access complete	Pass
	Blank		“Error” Enter the Name	Not as expected	Fail
4	Enter Email				
	Valid	kanthi @ gmail.com	Accept	Access complete	Pass
	Blank		“Error” Enter Email	Not as expected	Fail
5	Enter Password				
	Valid	kanthi123	Accept	Access complete	Pass
	Blank		“Error” Enter Password	Not as expected	Fail
6	Enter Confirm Password				
	Valid	kanthi123	Accept	Access complete	Pass
7	Enter the Valid Details and Press Register Button		“Register Successfully” & Redirect to login page	expected	Pass

Test Case for Midwife Register

8.2.3.Test case for User Register

Test case name/ID: 003
Test case Type: Functional Test case
Requirement No: 1
Module: Register the user
Status: pass/ Fail
Pre-Condition: Midwife Login to the system
Test Data: parent and baby, they are username email password address T.P, ID, etc. Deails.
Summary: Need a register parent & baby.
Author: G.M.H.R.Wijebandara.
Reviewed By: G.M.H.R.Wijebandara.
Tested By: G.M.H.R.Wijebandara.
Date: 31/05/2024

Step No	Description	Inputs	Expected Result	Actual Result	Status
1	Need a register parent & baby.	parent and baby, username, email password address T.P, ID, baby born weight.born place etc. Deails.	1.The midwife pages loddred successfully without errors. 2.Clickble & visible on add buttons and successfull register.	As expected,	Pass
	Input invalid parent id given baby register.		Error	Not as expected	Fail
	Success		successfull register.	As expected,	Pass

Test case for user register

8.2.4.Test case for Add record.

Test case name/ID: 004
Test case Type: Functional Test case
Requirement No: 1

Module: successfully Add record.
Status: pass/ Fail
Pre-Condition: Should be Register to the parents and baby
Test Data: Monthly baby growth,vaccine details, etc.
Summary: successfully Add record.
Author: G.M.H.R.Wijebandara.
Reviewed By: G.M.H.R.Wijebandara.
Tested By: G.M.H.R.Wijebandara.
Date: 31/05/2024

Step No	Description	Inputs	Expected Result	Actual Result	Status
1	successfully Add record.	Baby name, parent id,address,date,T.P, baby height,baby weight etc. Deails.	1.Add buttons all visible and clickble. 2.Monthly to Baby details can be added to the form. 3.Save button should be visble and save thee database to all data correctly.	As expected,	Pass

Test case for add record

8.2.5. Test case for create Report.

Test case name/ID: 005
Test case Type: Functional Test case
Requirement No: 1

Module: Create report successfully
Severity: Critical
Pre-Condition: Should be Register to the parents and baby
Test Data: Monthly baby growth,vaccine details, etc.
Summary: successfully Add record.
Author: G.M.H.R.Wijebandara.
Reviewed By: G.M.H.R.Wijebandara.
Tested By: G.M.H.R.Wijebandara.
Date: 31/05/2024

Step No	Description	Inputs	Expected Result	Actual Result	Status
1	successfully create Report..	All clinic Baby name, parent id,address,date,T.P, baby height,baby weight etc. Deails.	1.Navigate to the admin page. 2.Visible and clickbale report generate button. 3.Create the successfully all clinic report.	As expected,	Pass

Test case for create report.

8.4. Test Results and Analysis

When observing the existing documents, we were able to see that generating the results were very difficult to be done manually as it requires more time and effort from the employees involved.

9.RESULTS

9.1.Outcomes of the project

The Baby Clinic Management System is designed to streamline and enhance the management of pediatric care. The system's key outcomes include:

- **Improved Efficiency:** The registration and management of patient information become more efficient, reducing administrative workload and allowing midwives to focus more on patient care.
- **Enhanced Record Keeping:** Medical records, including vaccination schedules and growth charts, are stored and managed digitally, providing quick access and reducing the risk of data loss.
- **Parental Engagement:** The secure parent portal allows guardians to access their child's health information, schedule appointments, and communicate with healthcare providers, fostering greater involvement in their child's healthcare.
- **Clear Communication:** The feedback system ensures effective communication between staff members and parents, allowing for timely updates and responses to concerns.
- **Special Messaging:** Administrators can send special messages and view comprehensive reports, ensuring important information is conveyed and that there is an overview of the clinic's performance and patient health status.

9.2. Issues Encountered and Resolution

- **Data Security and Privacy:**

Issue: Ensuring that sensitive patient information is securely stored and accessed only by authorized individuals.

Resolution: Implementing robust encryption methods, secure login procedures, and compliance with healthcare data protection regulations (such as HIPAA) to safeguard data.

- **User Accessibility and Training:**

Issue: Ensuring that all users, including midwives, parents, and administrators, can effectively use the system.

Resolution: Providing comprehensive training sessions, user manuals, and ongoing support to ensure all users are comfortable with the system's features and functionalities.

- **Scalability and Performance:**

Issue: Ensuring the system can handle a growing number of users and records without performance degradation.

By addressing these issues effectively, the Baby Clinic Management System was successfully implemented, providing a comprehensive, secure, and user-friendly platform for managing pediatric care.

10.CONCLUSION

Before I started developing the baby clinic management system, I conducted extensive research to gather ideas and understand the essential features and functionalities needed. I analyzed various existing systems to identify their strengths and weaknesses, which gave me a clearer vision of what I wanted to achieve with my project. During the development process, I meticulously divided the tasks into manageable weekly segments, ensuring a structured and progressive approach. This method not only helped in tracking the progress but also made it easier to manage and implement changes as needed. Each week had specific milestones and objectives, allowing for a focused and systematic workflow.

Some crucial tasks performed while creating the system included:

- Requirement Analysis: Identifying and documenting the system requirements in consultation with stakeholders and users to ensure the system meets their needs.
- System Design: Creating detailed design documents, including data flow diagrams, entity-relationship diagrams, and user interface designs to guide the development process.
- Database Design: Designing a robust database to store and manage patient information, appointments, medical records, and billing details securely and efficiently.
- Frontend Development: Developing an intuitive and user-friendly interface that allows easy navigation for both clinic staff and patients.

Throughout the development, I collaborated closely with my project supervisor, whose support and guidance were invaluable. They provided critical insights, helped troubleshoot issues, and ensured the project stayed on track.

By the end of the project, I gained extensive experience in software development, project management, and problem-solving. I was proud to deliver a fully functional and well-designed baby clinic management system that met the initial objectives and exceeded user expectations. This project significantly enhanced my technical skills and provided a solid foundation for future endeavors in software development.

11. REFERENCES

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