

**DEVELOPMENT OF A WEB BASED SOFTWARE SYSTEM FOR
A MODERN DAY CARE CENTER**

by

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POST GRADUATE DIPLOMA IN INFORMATION AND COMMUNICATION
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This project titled **"DEVELOPMENT OF A WEB BASED SOFTWARE SYSTEM FOR A MODERN DAY CARE CENTER"**, Submitted by Sk. Waleur Rahman, Roll No. 1015311015, Session October/2015, to the Institute of Information and Communication Technology (IICT), Bangladesh University of Engineering and Technology (BUET), has been accepted as satisfactory for the partial fulfilment of the requirement for the degree of Post Graduate Diploma (ICT) held on April 15, 2019.

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
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CANDIDATE'S DECLARATION

It is hereby declared that this project report or any part of it has not been submitted elsewhere for the award of any degree or diploma.



Sk. Waleur Rahman

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Abstract

Now-a-days the task of rearing and bearing of children becomes a great challenge for parents especially for job-holders or engaged in study. An ideal day care center is a sweet home for a baby away from home but provides the best caring and learning with passion and professionalism to the beloved children in the temporary absence of their parents. In order to create such environment, it should be equipped and integrated with modern information and communication technology. This report presents a web based software system from where all the stake holders of the day care center such as manager, parents, teachers, admin etc. can play their role and take necessary actions and convey necessary messages to the proper person immediately. The software system is developed based on Laravel framework and MySQL in order to reduce the cost of management and make it convenient for the users. It includes the most popular components of a common management system like administration, parents, teachers, child, and doctors and E-mail/SMS notification. It stores data without any manual paper-based work. The system facilitates the end users with interactive design and automated processing of day care management. It is possible to notify any information or update to the respective stake holders through SMS using the system. On web server, parent, teacher and doctor can view specific child information after authentication. Parents have the access right to view his children and related data. Moreover they can communicate with admin, doctors and teachers. Parents can view the child exam information too. Teacher and Doctor have similar kind of functionality. They can view children information which are under his supervision. They can communicate with parents and admin and view specific messages or notifications. Consequently, the developed system will save time and effort and will provide much reliable output than the existing manual procedures. Therefore, the developed system can be a welcome addition to the day care center of our country.

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Abbreviations

AJAX Asynchronous Javascript and XML

CSS Cascading Style Sheet

DB Data Base

HTML Hyper Text Markup Language

HTTP Hyper Text Transfer Protocol

OOP Object Oriented Programming

PHP Hypertext Preprocessor (Personal Home Page)

SQL Structured Query Language

Chapter 1

Introduction

1.1 Overview

Children are like buds in a garden and should be carefully and lovingly nurtured, as they are the future of the nation and the citizens of tomorrow [1]. Children and Kids are the future of a nation. One day they will be the leaders and fathers of the country. So it is very essential to ensure a sweet environment for them and for their rearing and bearing and proper development with proper education. An ideal day care center equipped and integrated with modern information and communication technology can be a sweet home for the children and kids. However the existing day care centers in our country maintain traditional system and not properly equipped with modern technological facilities [2]. This project proposes a web based software system through all the stake holders of a modern day care center can play their role interactively and online. The manager of the daycare center can present their facilities to the parents in an attractive way, publish any new events or change of any daily schedule online as well as send message to the email and mobile of the parents. Moreover, the day to day academic performance of the children can be informed to the parents daily which can inspire them in their busy schedule. On the other hand, the parents also can communicate and inform the day care center in case the children is absent through the on line system.

1.2 Objectives

(a). Objectives with specific aims:

The objective of this project is to develop a web application for a modern day care center. To achieve this objective, the following aims will have to be materialized:

1. To develop contents for the proposed day care center and make it device responsive
2. To develop a user friendly GUI for the entire users (manager, System admin and parents)
3. To develop module through which manager of the day care center can communicate with parents using SMS/Email.

1. 3 Organization of the report

The rest of the report has been organized as follows.

Chapter -2 describes the system development and analysis for the day care center .Here we study the entire component of day care center to develop the system.

Chapter -3 shows the data base design of the day care center. The architecture of the system is explained in this chapter. In this section we defined the internal property, procedure and functionality of the system.

Chapter -4 explains the implementation of day care center. Implementation of the system is explained in this chapter. It explains the visual appearance and functionality of the system.

Chapter -5 presents the conclusion of the report. This section represents conclusion of the project and future directives for further improvements.

Chapter 2

System Life Development Cycle

2.1 Introduction

The systems development life cycle (SDLC), also referred to as the application development life-cycle, is a term used in systems engineering, information systems and software engineering to describe a process for planning, creating, testing, and deploying an information system. Various SDLC methodologies have been developed to guide the processes involved, including the waterfall model (which was the original SDLC method); rapid application development (RAD); joint application development (JAD); the fountain model; the spiral model; build and fix; and synchronize-and-stabilize. Some methods work better for specific types of projects, but in the final analysis, the most important factor for the success of a project may be how closely the particular plan was followed. In general, an SDLC methodology follows the following steps. Fig 2.1 illustrates the SDLC phase.

a. Planning

This is the first phase in the systems development process. It identifies whether or not there is the need for a new system to achieve a business's strategic objectives. This is a preliminary plan (or a feasibility study) for a company's business initiative to acquire the resources to build on an infrastructure to modify or improve a service.

b. Systems Analysis and Requirements

The second phase is where businesses will work on the source of their problem or the need for a change. In the event of a problem, possible solutions are submitted and analyzed to identify the best fit for the ultimate goal(s) of the project. Systems analysis is vital in determining what a business's needs are, as well as how they can be met, who will be responsible for individual pieces of the project, and what sort of timeline should be expected. There are several tools businesses can use that are specific to the second phase. They include:

- CASE (Computer Aided Systems/Software Engineering)
- Requirements gathering
- Structured analysis

c. Systems Design

The third phase describes, in detail, the necessary specifications, features and operations that will satisfy the functional requirements of the proposed system which will be in place. This is the step for end users to discuss and determine their specific business information needs for the proposed system. It's during this phase that they will consider the essential components (hardware and/or software) structure (networking capabilities), processing and procedures for the system to accomplish its objectives.

d. Development

The fourth phase is when the real work begins—in particular, when a programmer, network engineer and/or database developer are brought on to do the major work on the project. This work includes using a flow chart to ensure that the process of the system is properly organized. The development phase marks the end of the initial section of the process. Additionally, this phase signifies the start of production. The development stage is also characterized by installation and change. Focusing on training can be a huge benefit during this phase.

e. Integration and Testing

The fifth phase involves systems integration and system testing (of programs and procedures)—normally carried out by a Quality Assurance (QA) professional—to determine if the proposed design meets the initial set of business goals. Testing may be repeated, specifically to check for errors, bugs and interoperability. This testing will be performed until the end user finds it acceptable. Another part of this phase is verification and validation, both of which will help ensure the program's successful completion.

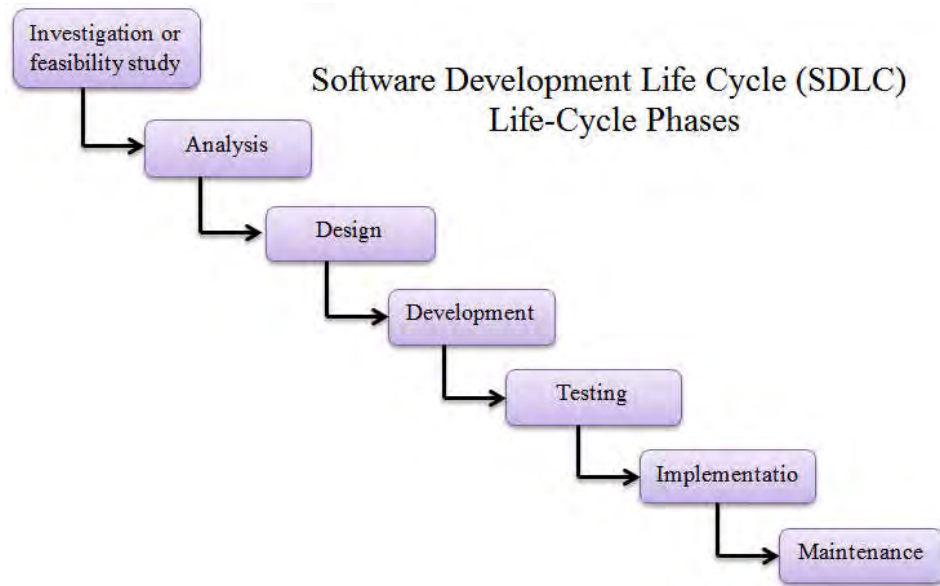


Fig 2.1: Software Development Life Cycle(SDLC)

f. Implementation

The sixth phase is when the majority of the code for the program is written. Additionally, this phase involves the actual installation of the newly-developed system. This step puts the project into production by moving the data and components from the old system and placing them in the new system via a direct cutover. While this can be a risky (and complicated) move, the cutover typically happens during off-peak hours, thus minimizing the risk. Both system analysts and end-users should now see the realization of the project that has implemented changes.

g. Operations and Maintenance

In this phase, periodic maintenance for the system will be carried out to make sure that the system won't become obsolete, this will include replacing the old hardware and continuously evaluating system's performance, it also includes providing latest updates for certain components to make sure it meets the right standards and the latest technologies to face current security threats.

2.2 Feasibility Study

The feasibility study will develop a project plan and budget estimates for the future stages of development. A more general description of the aims of a feasibility study is found in Putnam and Myers [11], where it is defined as a having to cover four different dimensions:

- technology (whether the project is technically feasible given the prevailing state of the art)
- finance(whether it is financially feasible within cost and budget envisaged by the client)
- time (whether it will beat the competition to the market)
- resources (whether the organization has the required resources to attempt the project)

2.2.1 Economic Feasibility

This section of feasibility study gives the top management the economic justification for the new system. This is an important input to the management because very often does not like to get confounded by the various technicalities that bound to be associated with a project of this kind. In the system, the institute is most satisfied by economic feasibility. Because, if the institute implements this system, it need not require any additional hardware resource as well as it will be saving lot of time.

2.2.2 Technical Feasibility

According to feasibility analysis procedure the technical feasibility of the system is analyzed and the technical requirements such as software facilities, procedure, inputs are identified. It is also one of the important phases of the system development activities. The system offers greater levels of user friendliness combined with greater processing speed. Therefore cost of maintenance can be reduced. Since processing speed is very high and the work is reduced in the maintenance point of view management convince that the project is operationally feasible.

2.2.3 Behavioral Feasibility

People are inherently resistant to change and computer has been known to facilitate changes. An estimate should be made of how strong the user is likely to move towards the development of computerized system. These are various levels of users in order to ensure proper authentication.

2.2.4 Disadvantages of Current System

- The current system is very time consuming.
- It is difficult to analyze.
- Data processing takes more time as it is done manually.
- It is not error free.

2.2.5 Characteristic of the Proposed System

The web based day care center has following features:

- In comparison to the present system the proposed system will be less time consuming and is more efficient.
- Analysis will be very easy in proposed system as it is automated.
- News and notification will be declared in very short span of time by using Email or SMS.
- Information of the users are stored and can be kept as back up for future use.

2.3 System Analysis

Systems Analysis and Design (SAD) is a broad term for describing methodologies for developing high quality Information System which combines Information Technology, people and data to support business requirement. The SAD technique is not only limited to IT systems and can be used to create just about anything, from a family house to the international space station. But there is no silver bullet in simplifying the development of computer systems. This principle is still true today. In other words, there is no single, simple technique that developers can use to ensure successful Information Technology (IT) projects. However, there are development methodologies that can be followed which will greatly assist an IT professional in developing and enhancing systems. [12] A methodology is essentially a procedure to get something done. A development methodology can be thought of as a roadmap. While a roadmap for a traveler will provide the details from driving from point A to point B, a development methodology will provide the IT professional with guidelines for taking a system from conception through implementation and beyond [13].

Some tools are used for system analysis.

- Data Flow Diagram
- Data Dictionary
- Decision Tree
- Structured English
- Decision Table

2.3.1 Data Flow Diagram

A data flow diagram (DFD) maps out the flow of information for any process or system. It uses defined symbols like rectangles, circles and arrows, plus short text labels, to show data inputs, outputs, storage points and the routes between each destination. Data flowcharts can range from simple, even hand-drawn process overviews, to in-depth, multi-level DFDs that dig progressively deeper into how the data is handled. They can be used to analyze an existing system or model a new one. Like all the best diagrams and charts, a DFD can often visually “say” things that would be hard to explain in words, and they work for both technical and nontechnical audiences, from developer to CEO. That’s why DFDs remain so popular after all these years. While they work well for data flow software and systems, they are less applicable nowadays to visualizing interactive, real-time or database-oriented software or system. Fig 2.2 show the DFD of this system.

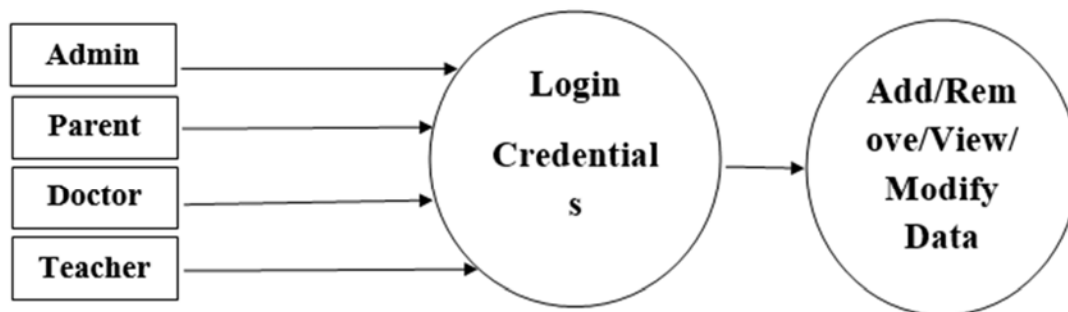


Fig 2.2: Data Flow Diagram (DFD)

2.3.2 Data Dictionary

A data dictionary is a collection of descriptions of the data objects or items in a data model for the benefit of programmers and others who need to refer to them. A first step in analyzing a system of objects with which users interact is to identify each object and its relationship to other objects. This process is called data modeling and results in a picture of object relationships. After each data object or item is given a descriptive name, its relationship is described (or it becomes part of some structure that implicitly describes relationship), the type of data (such as text or image or binary value) is described, possible predefined values are listed, and a brief textual description is provided. This collection can be organized for reference into a book called a data dictionary.

Some Important data dictionary show in Fig 2.3 of this proposed system.

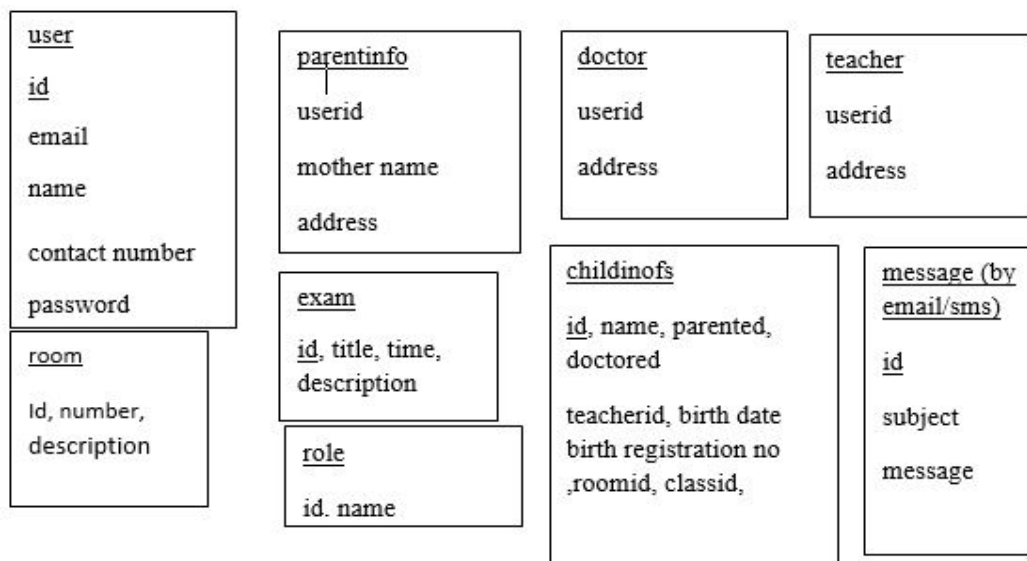


Fig 2.3: Data Dictionary

Chapter 3

System Design and Development

3.1 Design

Software/Web application design is the process by which an agent creates a specification of a software/application artifact, intended to accomplish goals, using a set of primitive components and subject to constraints. Web application design may refer to either "all the activity involved in conceptualizing, framing, implementing, commissioning, and ultimately modifying complex systems" or "the activity following requirements specification and before programming, as a stylized software engineering process." [17] Software design usually involves problem solving and planning a software solution. This includes both a low-level component and algorithm design and a high-level, architecture design.

3.2 Database Design

Database design is the organization of data according to a database model. The designer determines what data must be stored and how the data elements interrelate. With this information, they can begin to fit the data to the database model. Database design involves classifying data and identifying interrelationships.

3.3 E-R Diagram

Entity Relationship Diagram, also known as ERD, ER Diagram or ER model, is a type of structural diagram for use in database design. An ERD contains different symbols and connectors that visualize two important information: The major entities within the system scope, and the inter-relationships among these entities. [18]

Its components are:

- Rectangles representing entity sets.
- Ellipses representing attributes.
- Diamonds representing relationship sets.
- Lines linking attribute to entity sets and entity sets to relationship sets.

5.3.1 E-R Diagram for Day Care center

The description of entities are given below in Fig 3.1.

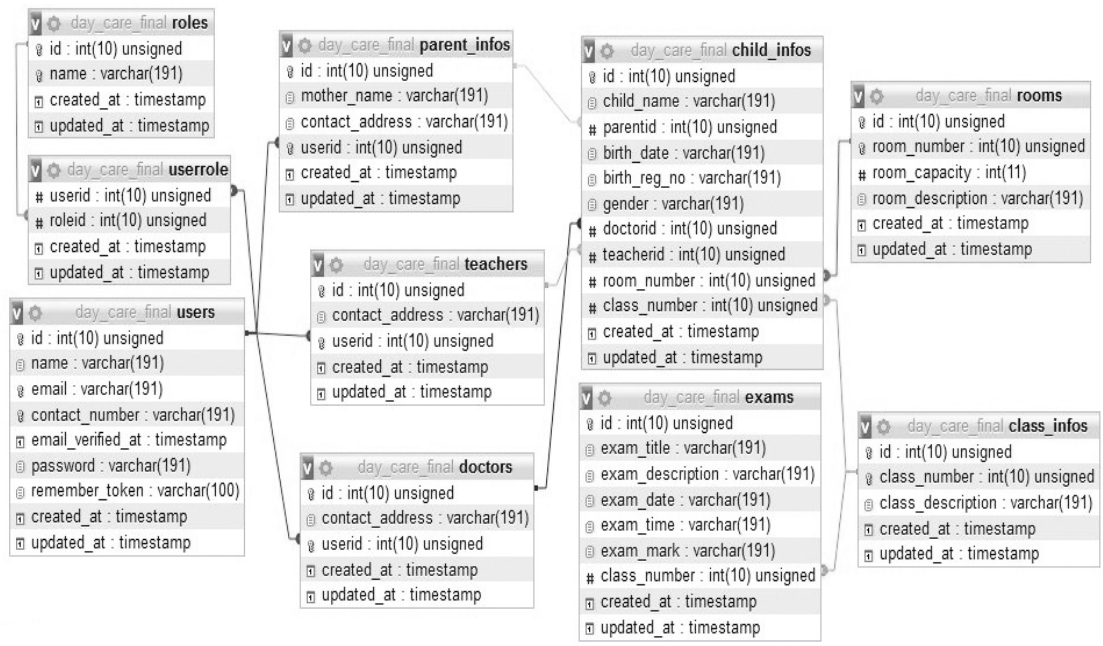


Fig 3.1: E-R Diagram

3.3.1.1 E-R Diagram for User

User information: user entity contains the user information like id, name, email, password, contact number etc. Fig 3.2 show the user ER diagram.

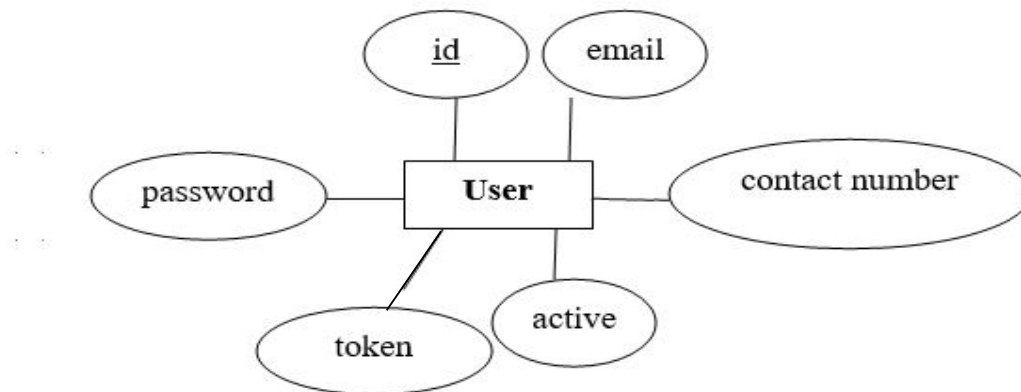


Fig 3.2: User E-R Diagram

Role: role entity contains the role information like id, name etc.

UserRole: userrole entity contains userid, roleid. It's the intermediate table for user and role many to many relation. Fig 3.3 show the user role ER diagram

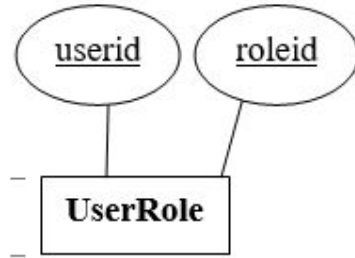


Fig 3.3: User Role E-R Diagram

Parents: parents entity contains the parent information like id, userid, mother name, address etc. It has one to relationship with user. Fig 3.4 show the doctor ER diagram.

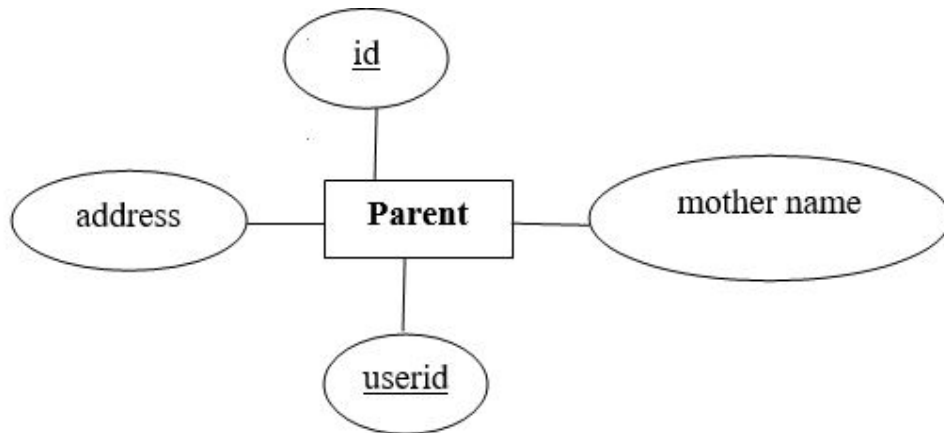


Fig 3.4: Doctor E-R Diagram

Doctors: doctor entity contains the doctor information like id, userid, address etc. It has one to relationship with user.

Teachers: teacher entity contains the teacher information like id, userid, address etc. It has one to relationship with user. Fig 3.5 show the teacher ER diagram.

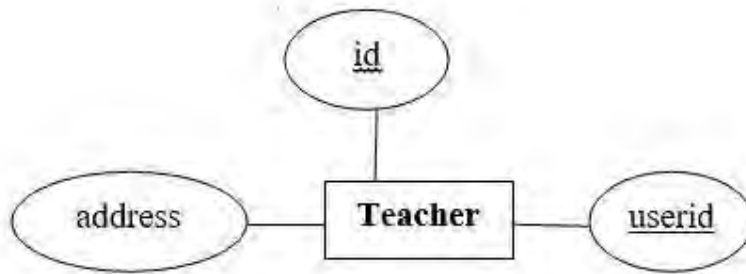


Fig 3.5: Teacher E-R Diagram

3.3.1.2 E-R Diagram of Child Information Table

E-R diagram of Child information contains primary key ID with auto increment. Teacher, doctor or admin can view child details .The admin can add student information in this table. Child have many to one relationship with parents, doctor, teacher and room. Fig 3.6 show the doctor ER diagram.

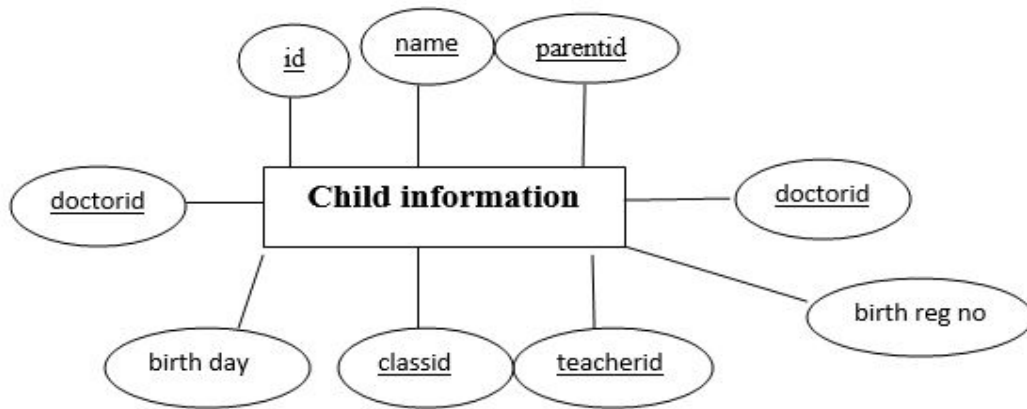


Fig 3.6: Child E-R Diagram

3.3.1.2 E-R Diagram of Exam and Class Information Table

E-R diagram of exam and class information contains primary key ID with auto increment. Exam table have one to one relation with class. And Class have one to many relation with child table. Fig 3.7 and Fig 3.8 show the class and exam ER diagram.

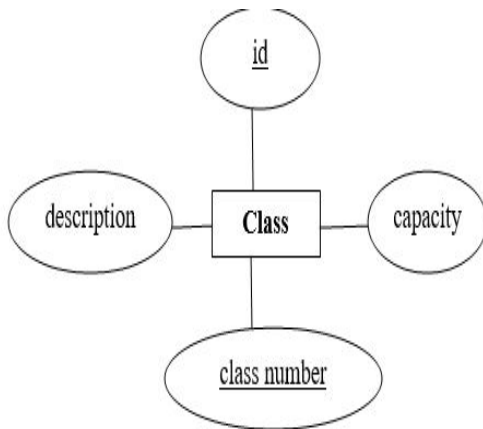


Fig 3.7: Class E-R Diagram

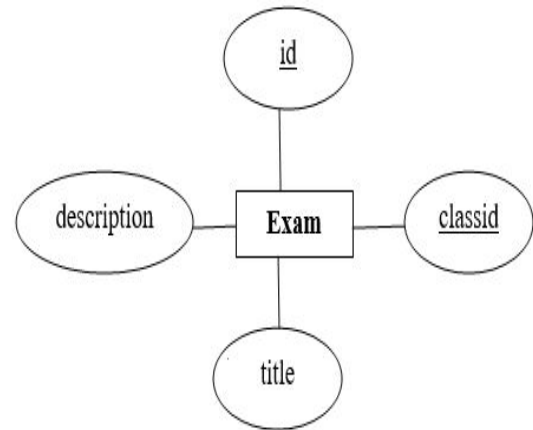


Fig 3.8: Exam E-R Diagram

3.4 Use Case Diagram

A use case diagram is a graphic depiction of the interactions among the elements of a system. A use case is a methodology used in system analysis to identify, clarify, and organize system requirements. In this context, the term "system" refers to something being developed or operated, such as a mail-order product sales and service Web site. Use case diagrams are employed in UML (Unified Modeling Language), a standard notation for the modeling of real-world objects and systems. System objectives can include planning overall requirements, validating a hardware design, testing and debugging a software product under development, creating an online help reference, or performing a consumer-service-oriented task. For example, use cases in a product sales environment would include item ordering, catalog updating, payment processing, and customer relations. [19]

3.4.1 Use Case Diagram of Admin

Fig 3.9 shows the use case diagram for the admin. Admin can add /view/edit/delete parent/child/doctor/teacher data. Admin can also add/view/edit/delete exam/class/notice/gallery images data. And also notify user for different information's like exam date.

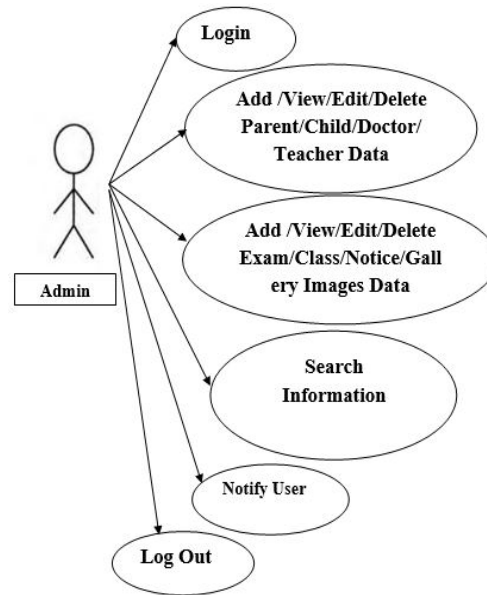


Fig 3.9: Admin Use Case Diagram

3.4.2 Use Case Diagram of Parent

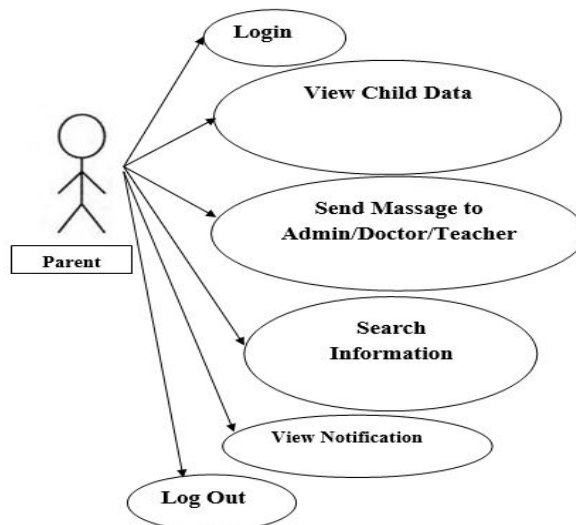


Fig 3.10: Parent Use Case Diagram

Fig 3.10 shows the use case diagram for the parent. Parent can view child data .Parent also view notification and communicate with admin, doctor or teacher etc.

3.4.3 Use Case Diagram of Doctor

Fig 3.11 shows the use case diagram for the doctor. Doctor can view child data .Doctor also view notification and communicate with admin, parent etc.

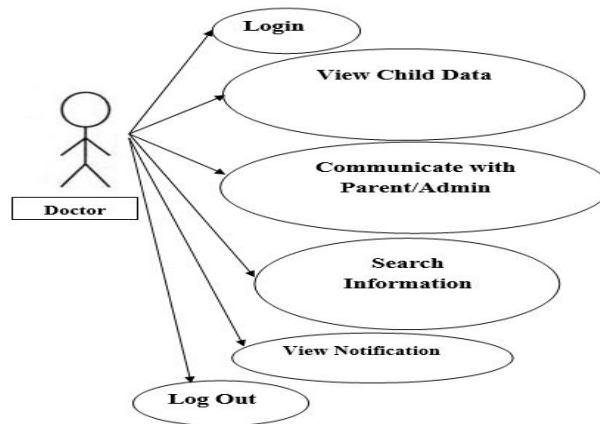


Fig 3.11: Doctor Use Case Diagram

3.4.4 Use Case Diagram of Teacher

Fig 3.12 shows the use case diagram for the doctor. Doctor can view child data .Doctor also view notification and communicate with admin, parent etc.

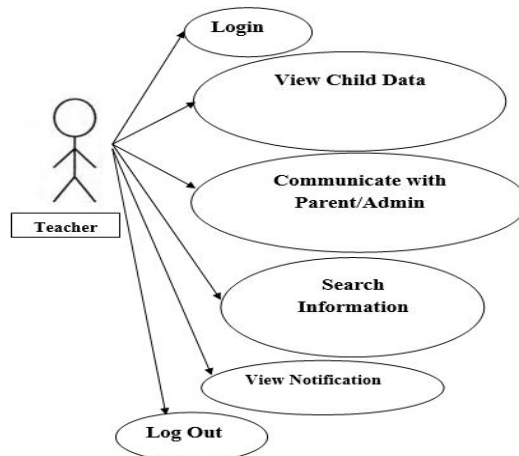


Fig 3.12: Teacher Use Case Diagram

3.5 Implementation

In this phase, the designs are translated into code. Computer programs are written using a conventional programming language or an application generator. Different high level programming languages like PHP, MYSQL, SQL, and HTML are used for coding. With respect to the type of application, the right programming language is chosen. In This project we use PHP and JS.

3.6 System Testing

In this phase, the system is tested. Normally programs are written as a series of individual modules, these subjects to separate and detailed test. The system is then tested as a whole. The separate modules are brought together and tested as a complete system. The system is tested to ensure that interfaces between modules work (integration testing), the system works on the intended platform and with the expected volume of data (volume testing) and that the system does what the user requires.

3.7 Tools and Technologies

3.7.1 Xampp Server

XAMPP is a free and open-source cross-platform web server solution stack package developed by Apache Friends, consisting mainly of the Apache HTTP Server, MariaDB database, and interpreters for scripts written in the PHP and Perl programming languages. Since most actual web server deployments use the same components as XAMPP, it makes transitioning from a local test server to a live server possible. XAMPP's ease of deployment means a WAMP or LAMP stack can be installed quickly and simply on an operating system by a developer, with the advantage a number of common add-in applications such as Wordpress and Joomla! can also be installed with similar ease using Bitnami .[14]

3.7.2 MySQL

SQL stands for Structured Query Language. MySQL is an open source Relational Database Management System (RDBMS); it is a popular database for use in web applications, and is a central part of the greatly used LAMP (Linux, Apache, MySQL, and Perl/PHP/Python) open-source web application software stack. On all platforms excluding Windows, MySQL sends with no GUI (Graphical User Interface) to administer MySQL databases or managing the data held within the databases. Users may install MySQL Workbench by downloading separately

or simply may use the command line tools. The first version of MySQL revealed on 23 may 1995. It has various versions. The general accessibility of MySQL 5.7 was broadcast in Oct 2015, and the version which is used in my project is 5.0.12 [15].

3.7.3 PHP

PHP is a server side scripting language that is used to develop Static websites or Dynamic websites or Web applications. PHP stands for Hypertext Pre-processor, that earlier stood for Personal Home Pages. PHP scripts can only be interpreted on a server that has PHP installed. The client computers accessing the PHP scripts require a web browser only. A PHP file contains PHP tags and ends with the extension ".php". There are many versions of the PHP, and the version, I have used for my application is the PHP version 7.2.3.

3.7.4 PhpMyAdmin

It is an open source tool and also, it is free written in PHP, XHTML, CSS, and JavaScript planned to manage the administration of MySQL by using of a web. It is able to perform various missions like creating, modifying databases, tables, fields, executing SQL statements or managing and supervise users. PhpMyAdmin is being translated into 72 languages in order to make the usage easy to a wide domain of people and it supports both LTR and RTL languages. [19].

3.7.5 The Sublime Text 3 editor

Sublime Text is a cross platform source code editor written in C++ and python. It originally supports plenty of programming and markup languages, and its functionality can be increased via users with plugins. Sublime Text 3 has two main features that are symbol pane management and symbol indexing. Through pane management users are to move between panes by hotkeys and symbol indexing enable Sublime Text to scan files and build an index to make easy the features Go to Symbol and Go to Definition in project.

It is downloaded from www.sublimetext.com/, site.

- A list of some features of Sublime Text is as following,
- It is python based plug-in API
- It is cross platform (Linux, Linux, OS X)
- Compatible with numerous language framers form Text Mate

- Project specific preferences

3.7.4 HTML AND CSS

HTML (Hyper Text Markup Language) is the most basic building block of the Web. It defines the meaning and structure of web content. Other technologies besides HTML are generally used to describe a web page's appearance/presentation (CSS) or functionality/behavior (JavaScript).

Cascading Style Sheets (CSS) is a stylesheet language used to describe the presentation of a document written in HTML or XML (including XML dialects such as SVG, MathML or XHTML). CSS describes how elements should be rendered on screen, on paper, in speech, or on other media.

3.8 Frameworks

3.8.1 Bootstrap

Bootstrap is the most popular HTML, CSS, and JS framework for developing responsive, mobile first projects on the web. Bootstrap easily and efficiently scales our websites and applications with a single code base, from phones to tablets to desktops with CSS media queries. On 31 Jan, 2012, Bootstrap 2 was released. This framework has brought many changes to the existing components and, also, added 12 column grid layout and responsive design constituents. On August, 19, 2013, Bootstrap 3 was announced, which moved to first approach of mobile and using a flat design. The first alpha version of Bootstrap was spread out on 19, Aug, 2015.

3.8.2 JavaScript Framework (Vue)

Vue is a progressive framework for building user interfaces. Unlike other monolithic frameworks, Vue is designed from the ground up to be incrementally adoptable. The core library is focused on the view layer only, and is easy to pick up and integrate with other libraries or existing projects. On the other hand, Vue is also perfectly capable of powering sophisticated Single-Page Applications when used in combination with modern tooling and supporting libraries.

3.8.3 Laravel (PHP Framework)

Laravel is a free, open-source PHP web framework, created by Taylor Otwell and intended for the development of web applications following the model–view–controller (MVC) architectural pattern and based on Symfony. Some of the features of Laravel are a modular packaging system with a dedicated dependency manager, different ways for accessing relational databases, utilities that aid in application deployment and maintenance, and its orientation toward syntactic sugar. The source code of Laravel is hosted on GitHub and licensed under the terms of MIT License. [5]

3.8.4 NPM

‘npm’ is the package manager for JavaScript and the world’s largest software registry. Discover packages of reusable code — and assemble them in powerful new ways. ‘npm’ Orgs is powerful collaboration — for free

- Encourage code discovery and re-use within teams
- Publish and control access to your own namespace
- Manage public and private code with the same workflow

3.8.5 Browsers

Chorme will be used for web client. Chorme is commonly used browser. The web application will also support many other modern web browsers like Firefox, Internet Explore etc.

3.8.6 Operating system

The operating system used to develop and test the project is Windows 10. Windows 10 is the commonly used operating system. The web application will develop and implement on computer which use Windows 10.

Chapter 4

Results and Discussions

4.1 Introduction

The Home screen of the proposed system consists of various buttons, images and links which helps to navigate to different section. In order to go to the desired screen, the users just have to click the related button on sidebar. By clicking the Home, About, Log In, Register, Gallery, Log Out buttons, their respective screens will appear. In home screen there is an image slider, a notice section and a header section to put some welcome text. Fig 4.1 show the home page section.



Fig 4.1: Home Page

4.2 About Section

In about section admin can put some information about the day care center.

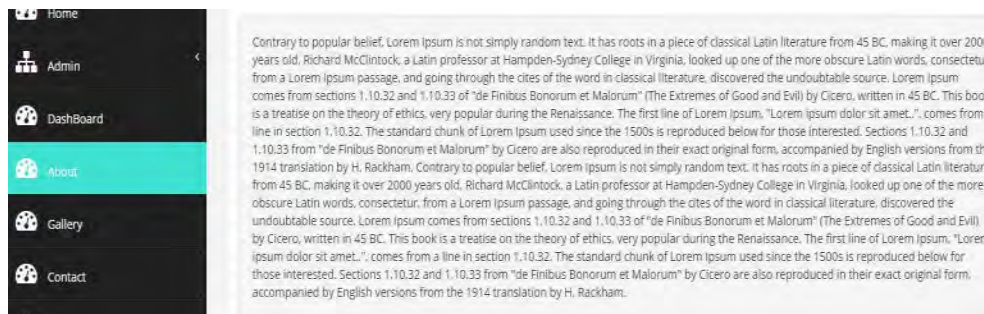


Fig 4.2: About Page

Fig 4.2 show the about page section.

4.3 Gallery Section

In this section various image of day care center and its activity would be showed. On click on a single image user can show the details about the image. Fig 4.3 show gallery page section.

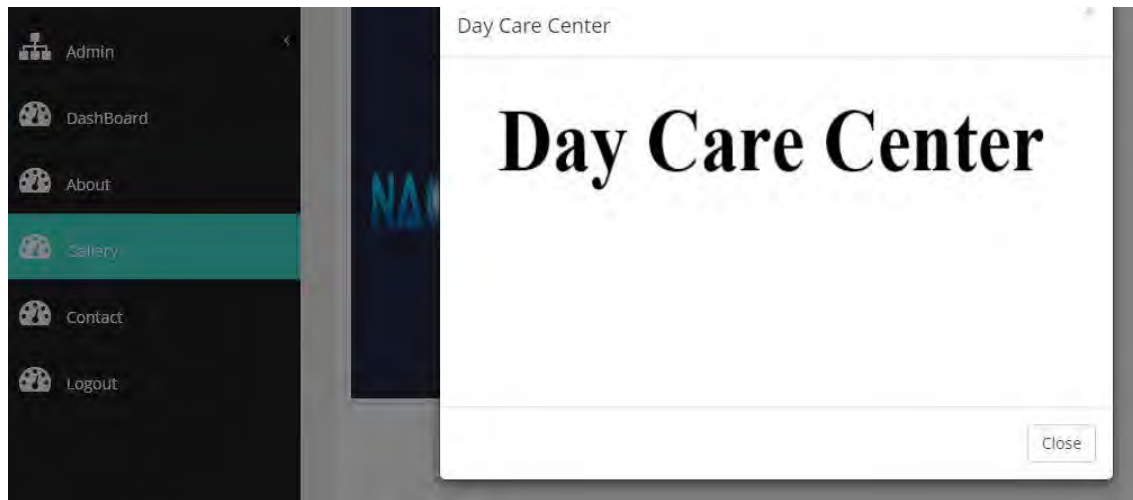


Fig 4.3: Gallery Page

4.4 Contact Section

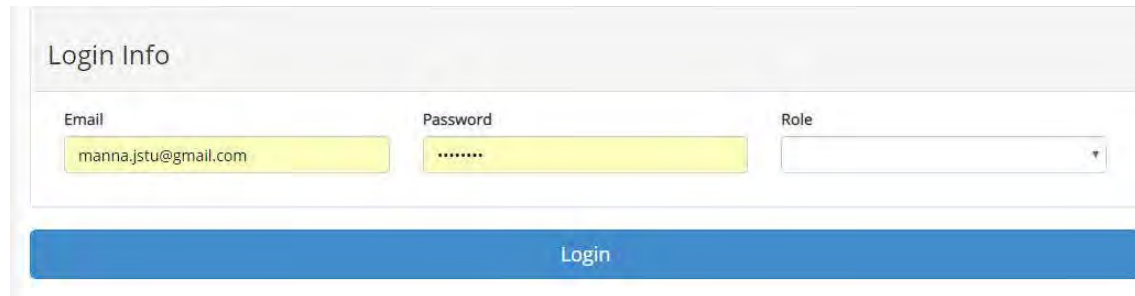
In this section, there is a contact form to contact with admin of day care center. Fig 4.4 show contact page section.

The image shows a contact form titled 'Contact With Admin'. It contains four input fields: 'Subject', 'Email', 'Contact Number', and 'Message'. The 'Message' field is a larger text area. Below the form is a blue button labeled 'Add Message'.

Fig 4.4: Contact Page

4.5 Login Section

The most import part of this management system is to manage the whole system. There is a form which have email, password and role field to login to the system back end. This page is made for security purpose. So an authentic user only has an access in to the project. A user can login to a system to obtain access, and then logout when the access is no longer needed. Fig 4.5 show login page section.




The login page features a form titled "Login Info" with a light gray header. Below the header, there are three input fields: "Email" containing "manna.jstu@gmail.com", "Password" with masked characters "*****", and "Role" which is a dropdown menu. A prominent blue button labeled "Login" is positioned at the bottom of the form.

Fig 4.5: Login Page

4.6 Register Section

By clicking on register button on sidebar, user show a registration form to register as parent. Fig 4.6 show register page section.



The registration page features a form titled "Register Info" with a light gray header. Below the header, there are five input fields arranged in two rows: "Email", "Father Name/Name", and "Contact Number" in the top row; "Password" and "Confirm Password" in the bottom row. A prominent blue button labeled "Register" is positioned at the bottom of the form.

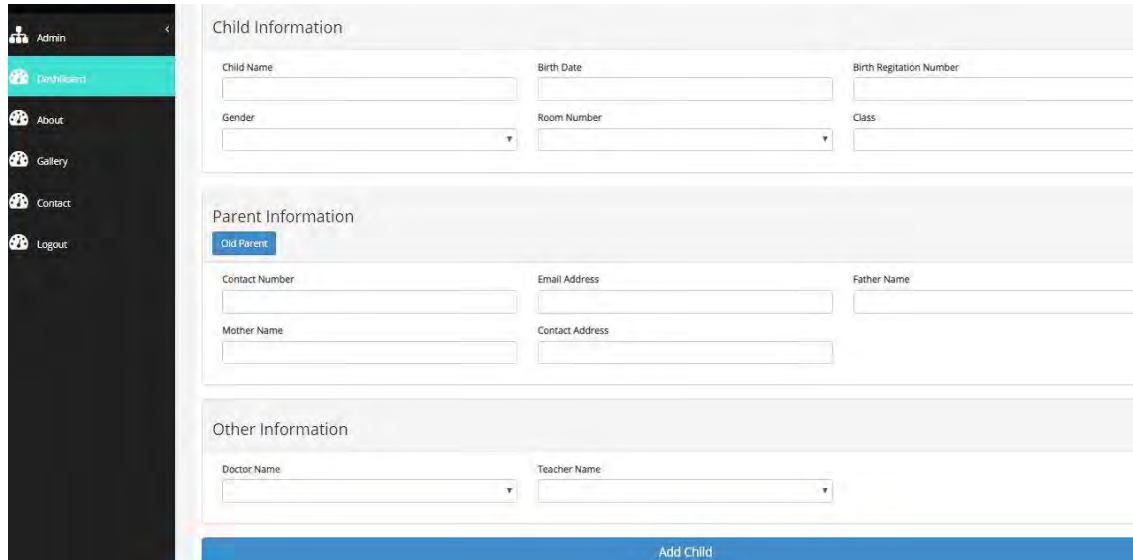
Fig 4.6: Register Page

4.7 Dashboard

This system have 4 types of user role (admin, parent, doctor, and teacher). If a user is authenticate, it will see dashboard panel based on their user role.

4.7.1 Admin Dashboard

If the authentic user role is admin, it will redirect to a page to add child, parent details. Fig 4.7 show admin dashboard page section.

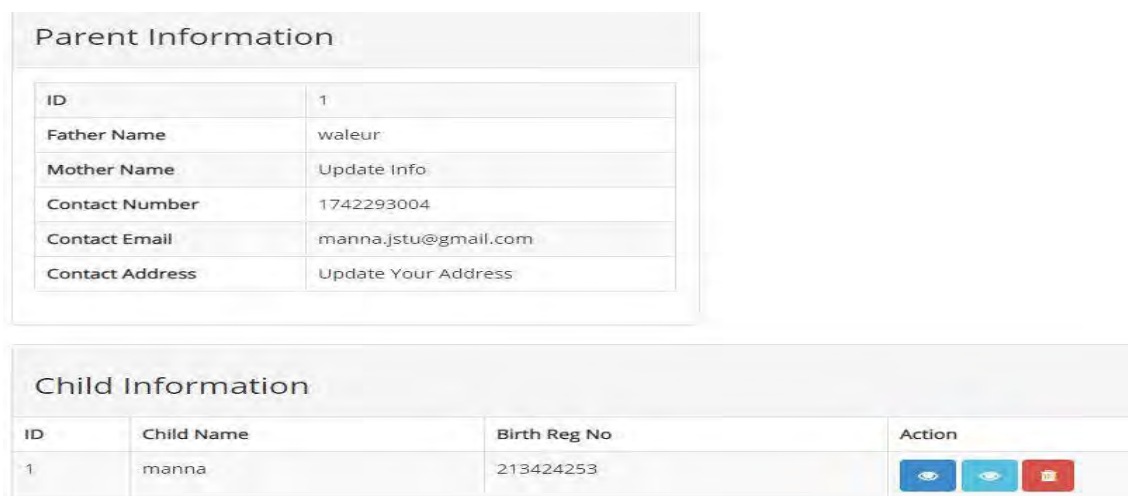


The Admin Dashboard Page features a dark sidebar on the left with navigation links: Admin, Don't select, About, Gallery, Contact, and Logout. The main content area is divided into three sections: Child Information, Parent Information, and Other Information. The Child Information section contains input fields for Child Name, Birth Date, Birth Registration Number, Gender, Room Number, and Class. The Parent Information section includes a 'Old Parent' button and input fields for Contact Number, Email Address, Father Name, Mother Name, and Contact Address. The Other Information section has dropdown menus for Doctor Name and Teacher Name. A blue 'Add Child' button is located at the bottom right of the form.

Fig 4.7: Admin Dashboard Page

4.7.2 Parent Dashboard

If the authentic user role is 'parent'. It will redirect to a page where user see detail information. It also see children information detail. Fig 4.8 show parents dashboard page section.



The Parent Dashboard Page displays two main sections: Parent Information and Child Information. The Parent Information section shows a table with details for a parent with ID 1, including Father Name (waleur), Mother Name (Update Info), Contact Number (1742293004), Contact Email (manna.jstu@gmail.com), and Contact Address (Update Your Address). The Child Information section shows a table with details for a child with ID 1, including Child Name (manna) and Birth Reg No (213424253). The Action column in the Child Information table contains three icons: a blue eye, a blue eye with a slash, and a red trash can.













ID	Child Name	Birth Reg No	Action
1	manna	213424253	  

Fig 4.8: Parent Dashboard Page

4.7.3 Teacher Dashboard

If the authentic user role is 'teacher'. It will redirect to a page where user see detail information. It also see children information detail under it. It also have an option to send message/email to admin. Fig 4.9 and Fig 4.10 show teacher dashboard page section.

Child Information			
ID	Child Name	Birth Reg No	Action
2	waleur	2134242556	  
4	waleur	2134242545	  
5	waleur	76213424258	  

Teacher To Admin Message			
ID	Subject	Message	Action

Admin To Teacher Message			
ID	Subject	Message	Action

Fig 4.9: Teacher Dashboard Page

Back

Teacher Information

ID	2
Name	waleur
Contact Number	1742293004
Contact Email	manhajstu@gmail.com
Contact Address	Please Insert Your Contact Address

Teacher To Admin Message

Subject

Message

Add Message

Fig 4.10: Teacher Communication with Admin

4.7.4 Doctor Dashboard

It has the same feature as the teacher dashboard.

4.8 Admin (Authentic Admin User) Section

If authentic user is an admin, it has some extra feature on sidebar menu. Those feature manage the application system. Fig 4.11 show admin sidebar section.

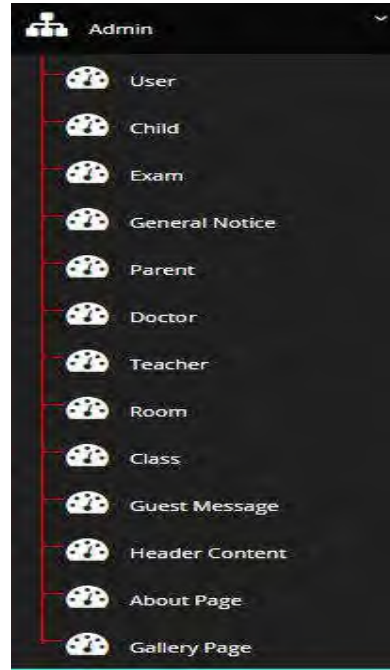


Fig 4.11: Admin Sidebar Section

4.8.1 User

User Section manage the day care center users. That is add/delete/edit user data. This section have the access to create new admin or modify user roles. User have email, name, contact number, password etc. Fig 4.12 show admin adding form.

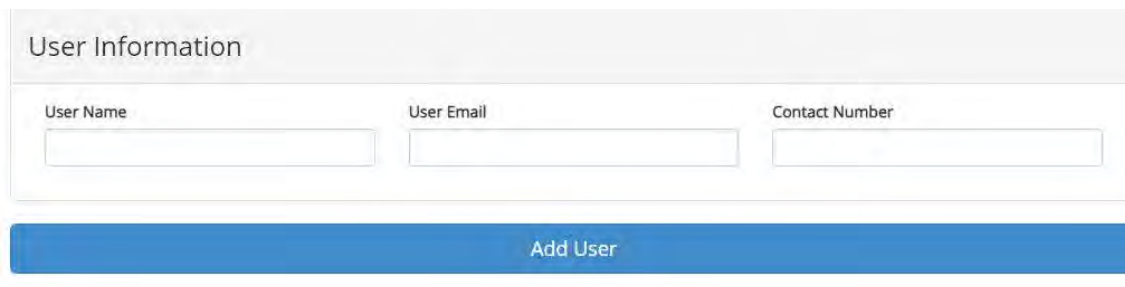
A form titled 'User Information' with a light gray header. Below the header, there are three input fields: 'User Name', 'User Email', and 'Contact Number'. Each field has a small label above it and a text input box. At the bottom of the form, there is a blue button with the text 'Add User' in white.

Fig 4.12: Add Admin (User) Data

[Add Admin](#)

All User Information

Search for users...











ID	Name	Email	Contact Number	Role	Action
1	waleur	manna.jstu@gmail.com	1742293004	admin parent teacher doctor	  
2	waleur	waleur.jessore@gmail.com	5757585	parent teacher doctor	  
3	teacher tt 3	magvhvnnajstu@gmail.com	174229307604	teacher	  
4	gd	manna.fgfjstu@gmail.com	17422930046557	doctor	  

Fig 4.13: User Details and Search Functionality

4.8.2 Child

Child Section manage the day care center children. That is add/delete/edit children data. Fig 4.14 show child details section.

[Add Child](#)

Children Information

Search for children...


ID	Child Name	Father Name	Mother Name	Contact Number	Birth Reg No	Birth Day	Action
6	waleur	waleur	Update Info	1742293004	54545464	04/12/2018	  
5	waleur	waleur	Update Info	1742293004	76213424258	10/12/2018	  
4	waleur	Sk Hachibur Rahman	hjih	174652293004	2134242545	24/12/2018	  

Fig 4.14: All Child Details for Admin

4.8.3 Exam

exam Information

Exam Title

Exam Description

Exam Mark

Exam Date

Exam Time

Class

[Add Exam](#)

Fig 4.15: Add Exam Page

This section have the access to add new exam information on a specific class. And also notify the specific parent about the exam details via sms or email. The admin user can insert exam title, description mark, data of exam, specific class etc. Fig 4.16 show single exam details section.

Back

Notify All Child

Exam Information

Exam ID	1
Exam Title	jhj
Exam Description	dfdf
Exam Date	20/11/2018
Exam Time	8:46 AM

All Child

Child Information

ID	Child Name	Birth Reg No	Action
1	manna	213424253	<div><div></div><div></div><div></div></div>

Fig 4.16: Single Exam Details with Children Page

4.8.4 General Notice

This section manage the day care center notice section. Notice have title and description. This section have the search functionality to search previous notices. Fig 4.17 and Fig 4.18 show general notice section.

General Notice

Notice Title

Notice Description

Add Notice

Fig 4.17: Add General Notice Page

Add General Notice

General Notice

Search for children...

ID	Title	Description	Action
6	fg hbfcv fg hbfcv	gdgdg fgfgf...	<div><div></div><div></div><div></div></div>

Fig 4.18: General Notice Details Page

4.8.5 Parent

This window have functionality to add/edit/view/delete/search parent. It can also manage child under the specific parent. Fig 4.19 and Fig 4.20 show parent section.



Fig 4.19: Parent Details Page



Fig 4.20: Add Parent Page

4.8.6 Doctor

This window have functionality to add/edit/view/delete/search doctor. It can also manage child under the specific doctor. Fig 4.21 and Fig 4.22 show doctor section.

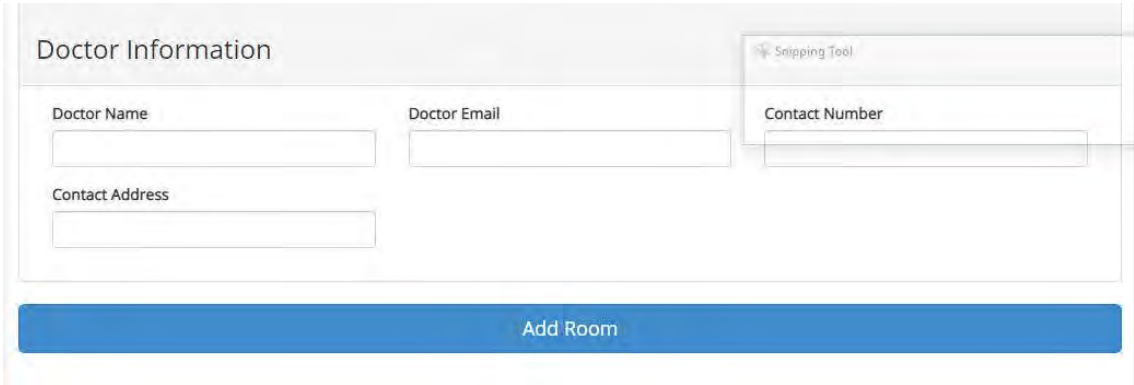


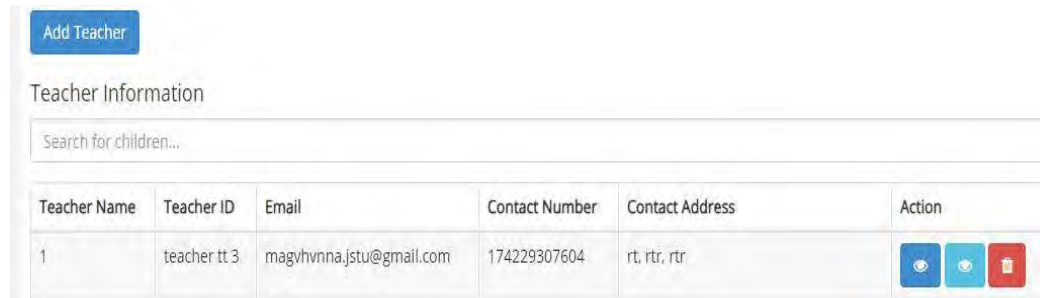
Fig 4.21: Add Doctor Page



Fig 4.22: Doctor Details Page

4.8.7 Teacher

This window have functionality to add/edit/view/delete/search doctor. It can also manage child under the specific teacher. Fig 4.23 show teacher section.



The screenshot shows a web interface for managing teachers. At the top left is a blue button labeled 'Add Teacher'. Below it is a section titled 'Teacher Information' containing a search bar with the placeholder text 'Search for children...'. Underneath the search bar is a table with the following data:




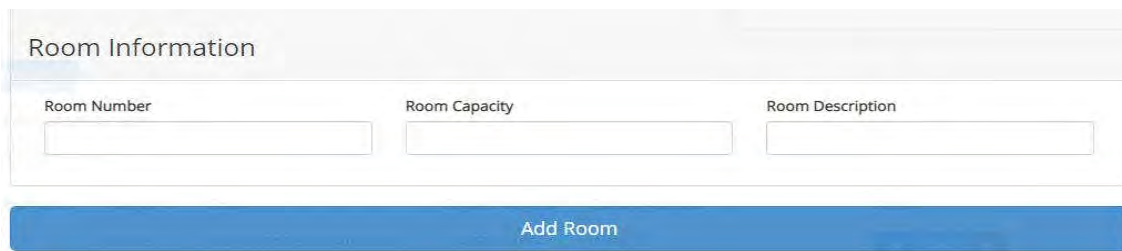
Teacher Name	Teacher ID	Email	Contact Number	Contact Address	Action
1	teacher tt 3	magvhvnnajstu@gmail.com	174229307604	rt, rtr, rtr	  

Fig 4.23: Teacher Details Page

4.8.8 Room

This section have the functionality to add/edit/view/delete/search room information. Fig 4.25 show teacher section. Fig 4.24 show room section.

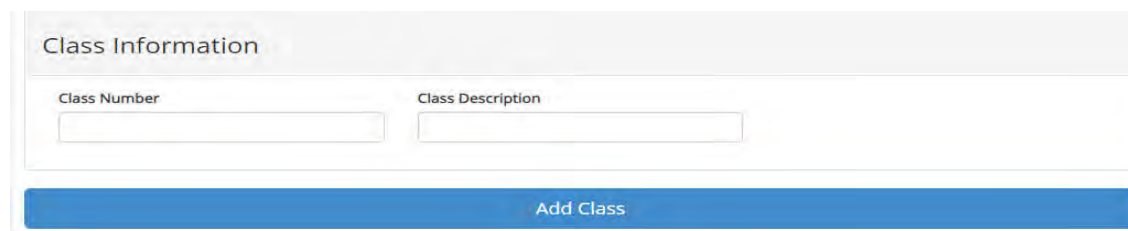


The screenshot shows a web interface for adding a new room. It has a section titled 'Room Information' with three input fields: 'Room Number', 'Room Capacity', and 'Room Description'. Below these fields is a large blue button labeled 'Add Room'.

Fig 4.24: Add Room Page

4.8.9 Class

This section have the functionality to add/edit/view/delete/search class information. Fig 4.25 show teacher section.



The screenshot shows a web interface for adding a new class. It has a section titled 'Class Information' with two input fields: 'Class Number' and 'Class Description'. Below these fields is a large blue button labeled 'Add Class'.

Fig 4.25: Add Class Page

4.8.10 Guest Message

The front end guest messages via the contact form are shown there. It also show there email and contact number. Admin can manage the message. Fig 4.26 show guest message section.


Guest Message				
Search for children...				
ID	Subject	Email	Contact Number	Action
8	Cancel unpaid order	manna.js@gmail.com	01842293004	

Fig 4.26: Guest Message Details Page

4.8.11 About Page and Header

Front end about and header content is managed by this section. Fig 4.27 show about page section.

Header Content

Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s, when an unknown printer took a galley of type and scrambled it to make a type specimen book. It has survived not

Update Room

Fig 4.27: Add Home Page Header Content

About Page Content

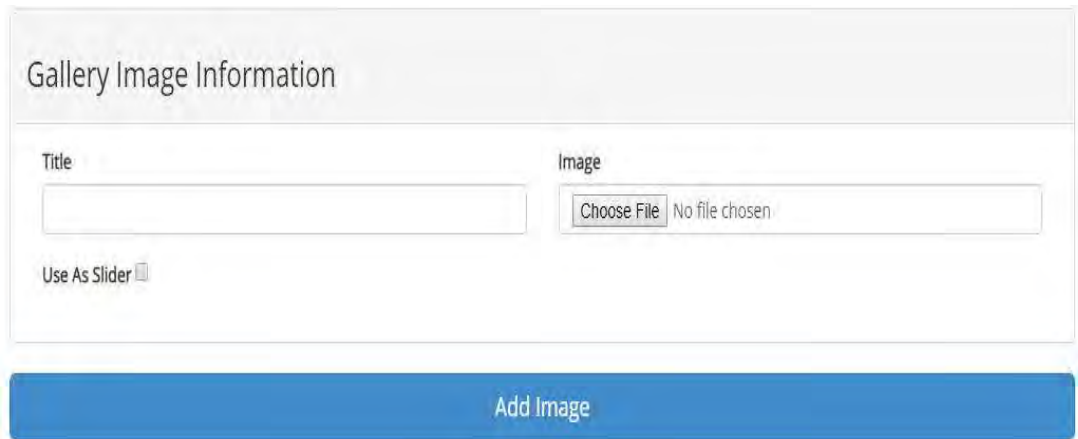
Contrary to popular belief, Lorem Ipsum is not simply random text. It has roots in a piece of classical Latin literature from 45 BC, making it over 2000 years old. Richard McClintock, a Latin professor at Hampden-Sydney College in Virginia, looked up one of the more obscure

Update Content

Fig 4.28: Add About Page Content

4.8.12 Gallery Page

Gallery and slider images are managed by this section. Fig 4.29 and Fig 4.30 show teacher section.



Gallery Image Information

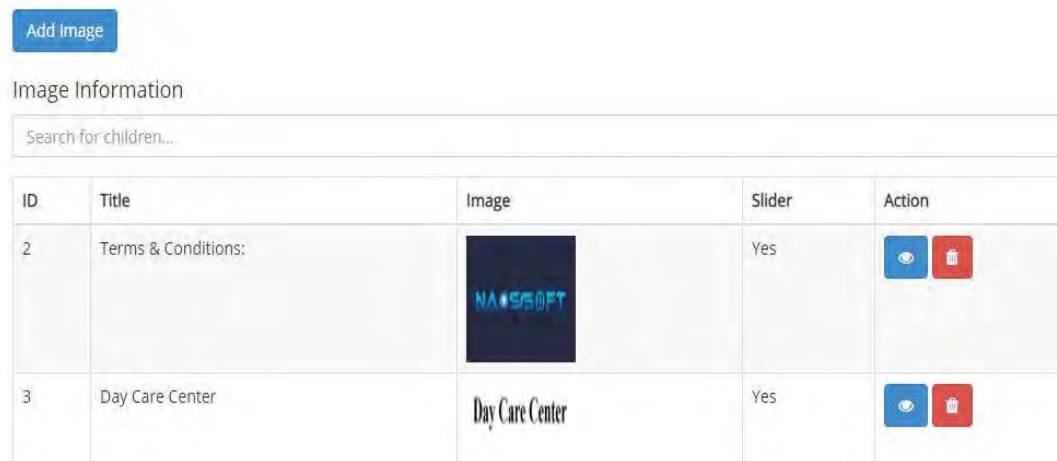
Title

Image No file chosen

Use As Slider ☐

[Add Image](#)

Fig 4.29: Add Gallery and Slider Images



[Add Image](#)

Image Information

Search for children...



ID	Title	Image	Slider	Action
2	Terms & Conditions:		Yes	View Delete
3	Day Care Center		Yes	View Delete

Fig 4.30: Gallery and Slider Images Details Page

4.9 Single Child Page

On a single child page, there are many functionality base on the user roles. Admin can send message/notification to parent and see the message from parent too. Admin can also see the doctor and teacher message on specific child .Admin also see the exam details. If the authentic user act as a parent ,it only the specific child information, exam time ,admin, doctor, teacher messages .Parent can send message to specific doctor and teacher .Parent Also communicate with admin. Doctor and Teacher can also view the child information and communicate with parent.

Chapter 5

Conclusion

5.1 Conclusion

As the nuclear family and working parent increase day by day, the demand of day care center increase simultaneously. So it is time to introduce a day care center with modern tools and technology. It is required to manage information and communicate with parent by a digital system. In this project, ICT equipped modern day care modern day care center is presented. It reduces manual workload, cut down on errors, and finally improve service levels. It is user-friendly with responsive design. In addition, it is a multi-user role base system and there is no limitation on the number of simultaneous users. The security of the system has been maintained and only the authorized users have access to the system backend. In future many new features can be added to enhance the system.

5.2 Future works

In the future, many features will develop like digital payment system, biometric validation, attendant system etc. Those feature will make this application more advanced and will also increase its reliability and effectiveness.

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