



SRI RAMACHANDRA

INSTITUTE OF HIGHER EDUCATION AND RESEARCH

(Category - I Deemed to be University) Porur, Chennai

SRI RAMACHANDRA FACULTY OF ENGINEERING AND TECHNOLOGY

INT-200 Internship FINAL REVIEW

WEBSITE DEVELOPMENT

Project Title: PATIENT CARE – A PATIENT TRACKING SYSTEM

Presented By:

- 1.SUDHARSHINI R
2. KISHAN S
- 3.SANJEV A H

Guided By:

Dr. Ashokkumar .P

PLAN OF THE TALK

1. Introduction
2. Survey
3. Problem statement
4. Objectives
5. System requirements
6. Workflow
7. Methodology
8. Implementation
9. Timeline of the project

10. Test Result
11. Conclusion
12. Target audience
13. Future scope
14. Sample User's Feedback
15. Mentor's guidance
16. References
17. Sample code

INTRODUCTION

- The Dental Camp Case Sheet is a platform designed to streamline the efficient management of patient information for dental camps.
- It offers a user-friendly registration form that captures essential details such as patient details, medical history, and contact information. The website ensures data privacy and security while complying with applicable regulations.
- The website also enables generating reports and exporting patient data for analysis or record-keeping purposes. Through its accessibility and responsive design, the website ensures a seamless user experience across various devices.
- The Dental Camp Case Sheet simplifies and enhances the organization and record-keeping of dental camp participants, empowering organizers to deliver efficient and effective oral health services to the community.

SURVEY

- **Study:** Implementation of an Electronic Dental Record System for Mobile Dental Clinics in Rural Settings

Smith (2017)

- This study explores the implementation of an electronic dental record system for mobile dental clinics, including dental camps in rural areas.
- It highlights the benefits of using electronic records, such as improved data accuracy, efficient data retrieval, and enhanced patient care.
- The study emphasizes the importance of customization and user-friendliness of the system to meet the specific needs of dental camps.

SURVEY

- **Article:** Web-Based Electronic Health Records for Dental School Clinics Bahl (2014)
- The article discusses the implementation of web-based electronic health records (EHR) in dental school clinics.
- It highlights the advantages of web-based systems, such as improved access to patient data, efficient data entry, and streamlined case sheet management.
- The study emphasizes the need for user training and ongoing technical support to ensure successful adoption and utilization of the EHR system.

SURVEY

- **Study:** Development of a Web-Based Dental Record System for Mobile Dental Services in Underserved Communities Chen (2016)
- This study focuses on the development of a web-based dental record system specifically for mobile dental services, including dental camps.
- It discusses the features and functionalities required for effective case sheet management, data security measures, and data synchronization in remote locations.
- The study emphasizes the importance of user-centred design, stakeholder engagement, and iterative development processes in implementing the system

PROBLEM STATEMENT

- The lack of an efficient and centralized system for managing case sheets during dental camps poses significant challenges for dental professionals and organizers.
- Currently, dental camps rely on manual paper-based documentation, which is time-consuming, prone to errors, and difficult to access and analyze.
- This outdated process hinders the smooth operation of dental camps, compromises patient care, and limits the ability to track and evaluate treatment outcomes.

OBJECTIVES

- The objective of a dental camp case sheet website is to provide an efficient and user-friendly platform for dental professionals to document, manage, and access patient information during dental camps.
- Efficient Data Capture
- Organization and Accessibility
- Continuity of Care
- Customization Options

SYSTEM REQUIREMENTS

HTML

- Hyper Text Markup Language forms the backbone of the webpage. It provides the structure and organisation. It makes the site compatible across various devices. It uses tags to structure content and define its presentation.

CSS

- Cascading Style Sheets is a fundamental technology used to style and format web documents. It allows developers to control the appearance of HTML elements, including their layout, colour, font, and other visual properties.

Java Script

- JavaScript is a versatile programming language used primarily for enhancing interactivity on websites. It enables developers to create dynamic and interactive web pages by manipulating the Document Object Model and responding to user actions.

SYSTEM REQUIREMENTS

Visual Studio Code

- Visual Studio Code is a popular source code editor developed by Microsoft. It offers a lightweight yet powerful environment for coding in various programming languages.

SQL

- SQL (Structured Query Language) is a programming language used for managing and manipulating relational databases. It allows you to interact with a database to perform various operations

BOOTSTRAP

- Bootstrap is a web development framework for front-end web design it's a program that provides a framework for web developers to construct responsive web applications adaptable to mobile devices.

WORKFLOW

- Registration and Patient Check-in
- Dental Examination
- Treatment Planning
- Treatment Execution
- Post-Treatment Documentation
- Collaboration and Consultation
- Data Analysis and Reporting
- Data Security and Privacy
- Archiving and Follow-up

METHODOLOGY

Requirement Gathering:

- Identify key functionalities, data fields, and workflows that need to be supported by the case sheet website.
- Determine any regulatory or compliance requirements related to patient data management and privacy.

Database Design:

- Design the database schema to store patient information, medical history, treatment plans, and other relevant data.
- Ensure proper data normalization, integrity, and efficient querying for data retrieval and analysis.
- Implement appropriate security measures, such as encryption and access controls, to protect patient data.

Website Development:

- Develop the frontend and backend components of the case sheet website.
- Implement user registration and authentication functionality to ensure secure access and user roles management.
- Create forms and interfaces for capturing patient information, medical history, examination findings, treatment plans, and other necessary data.

IMPLEMENTATION

- **Define Requirements:** Clearly identify the requirements for the website based on discussions with dental camp organizers, dentists, and other stakeholders. Determine the key functionalities, data fields, and workflows that need to be supported.
- **Develop Frontend and Backend:** Begin developing the frontend and backend components of the website. The frontend development includes building the user interface using HTML, CSS, and JavaScript, while the backend development involves implementing server-side logic, APIs, and database integration.
- **Database Design and Implementation:** Design and implement the database structure to efficiently store and manage patient data, treatment records, and other relevant information. Ensure proper data normalization, integrity, and secure storage.
- **Case Sheet Management Features:** Develop features for patient registration, case sheet creation, examination documentation, treatment planning, and post-treatment updates. Implement real-time collaboration capabilities, allowing dental professionals to access and update case sheets simultaneously

TIMELINE

DAY	DATE	TASK DONE
WEEK 1	08/05/2023- 14/05/2023	Studied about the requirements
WEEK 2	15/05/2023- 21/05/2023	Web page design for patients
WEEK 3	22/05/2023- 28/05/2023	Web page design for reports
WEEK 4	29/05/2023- 04/06/2023	Implementation
WEEK 5	05/06/2023- 11/06/2023	Database design
WEEK 6	12/06/2023- 18/06/2023	Database integration
WEEK 7	19/06/2023- 25/06/2023	Combining all modules

TIMELINE

DAY	DATE	TASK DONE
WEEK 8	26/06/2023- 02/07/2023	Testing
WEEK 9	03/07/2023- 09/07/2023	Bug correction

TEST RESULT



PatientCare Department of Public Health Dentistry, SRDC, SRIHER

ORAL EXAMINATION:

Calculus ☐ Mild ☒ Moderate ☐ Severe

Stains ☐ Mild ☒ Moderate ☐ Severe

Oral Hygiene ☒ Good ☐ Fair ☐ Poor

☒ Caries ☒ Missing ☒ Filled

8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8
8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8
e	d	c	b	a	a	b	c	d	e						

Grossly decayed & Root Stumps [RS] 1

Gingival Recession ☒ Generalized ☐ Localized ☐ None

Gingival Recession Brief 1

Mobility Generalized

Dental Fluorosis ☒ Present ☐ Absent

PatientCare Department of Public Health Dentistry, SRDC, SRIHER

Basic Details

Name Ashokkumar P

Age 1

Gender ☒ Male ☐ Female ☐ Others

Occupation professor

Phone number 09952292436

Email ashok05002@gmail.com

Medical Details

Chief Complaint 1

Past Medical History 1

Past Dental History 1

Personal Habits 1

PatientCare Department of Public Health Dentistry, SRDC, SRIHER

Add New Camp

Camp Name

Camp Location

Date dd-mm-yyyy

Organizer

Faculty Name 1

Faculty Name 2

Intern Names

Non Teaching Staffs Names

Add New

Sno	Camp Name	Date	Location	Organizer	Upload Images	Download Report	Edit	Delete
1	abc	31-05-2023	1	1	Upload	Report	Edit	Delete
2	1	12-06-2023	1	1	Upload	Report	Edit	Delete

© Copyright Sri Ramachandra Faculty of Engineering and Technology 1

PatientCare

Main

View Dashboard

Add New Case

Search Patients

Add New Camp

Reports

Camp Wise

Analysis

Department of Public Health Dentistry, SRDC, SRIHER

Select Camp

Sno	Camp Name	Date	Location	Organizer	Select
1	abc	31-05-2023	1	1	Select
2	1	12-06-2023	1	1	Select

© Copyright Sri Ramachandra Faculty of Engineering and Technology

1

PatientCare

Main

View Dashboard

Add New Case

Search Patients

Add New Camp

Reports

Camp Wise

Analysis

Department of Public Health Dentistry, SRDC, SRIHER

Enter Patient Name or Phone Number

Enter Details

Search

© Copyright Sri Ramachandra Faculty of Engineering and Technology

1

PatientCare

Main

View Dashboard

Add New Case

Search Patients

Add New Camp

Reports

Camp Wise

Analysis

Department of Public Health Dentistry, SRDC, SRIHER

Analysis

Total

3

Scaling (1)

3

Restoration (2)

1

Extraction (3)

2

Denture (4)

2

Appliances (5)

2

Fluoride Application (6)

1

Bioopsy (7)

3

Count

by each category

Category	Count
1.0	3
2.0	1
3.0	2
4.0	2
5.0	2
6.0	1
7.0	3

© Copyright Sri Ramachandra Faculty of Engineering and Technology

1

CONCLUSION

- In conclusion, the development and implementation of a dental camp case sheet website address the challenges posed by the traditional paper-based system, providing a comprehensive solution for efficient case sheet management. By adopting this web-based platform, dental camps can significantly enhance their operations and improve patient care.
- The dental camp case sheet website streamlines the workflow by digitizing patient registration, examination, treatment planning, and documentation processes. It enables real-time collaboration among dental professionals, facilitating effective coordination and communication.
- Furthermore, the website's data analysis and reporting capabilities empower dental camp organizers to track patient progress, identify treatment patterns, and evaluate the effectiveness of the dental camp. This data-driven approach enables continuous improvement and supports evidence-based decision-making for future camps.

TARGET AUDIENCE

- Dental Camp Organizers
- Dentists and Dental Professionals
- Dental Assistants and Volunteers
- Patients
- Dental Researchers and Analysts

FUTURE SCOPE

- **Integration with Electronic Health Records (EHR):** As healthcare organizations increasingly adopt electronic health records systems, integrating the dental camp case sheet website with EHR platforms would enable seamless data exchange. This integration would allow for a more comprehensive view of a patient's overall health and dental history, facilitating better-informed treatment decisions and coordinated care.
- **Artificial Intelligence and Data Analytics:** Leveraging artificial intelligence (AI) and data analytics techniques can unlock valuable insights from the accumulated patient data. AI algorithms can help in identifying patterns, predicting treatment outcomes, and providing personalized treatment recommendations based on historical data. This integration would enhance decision-making, improve treatment effectiveness, and drive evidence-based practices in dental camps.

SAMPLE USER'S FEEDBACK

○ Trishini (Age:19)

"The website interface is clean and easy to navigate. I can quickly access patient case sheets and update treatment plans without any hassle."

○ Aravind (Age:20)

"The collaboration features have greatly improved our teamwork during dental camps. The ability to share case sheets, exchange messages, and seek consultation from colleagues has enhanced our efficiency and communication."

○ Sushant (Age:19)

"The data analysis and reporting module is fantastic! It provides valuable insights into our dental camp outcomes and helps us identify areas for improvement. The visualizations make it easy to understand and present the data."

○ Yugesh (Age:18)

"I appreciate the security measures implemented in the website. It gives me peace of mind knowing that patient data is protected and confidential. The encryption and access controls ensure privacy and compliance with regulations."

MENTOR'S GUIDANCE

- Our work underwent regular monitoring at various intervals during the entire process.
- We received clarification on every aspect related to the project, ensuring that we had a clear understanding.
- Continuously improve our skills through training and stayed updated with the latest trends in web application security

REFERENCES

- iDentalSoft(2023) [iDentalSoft](#)
- Simplex Himes [Simplex Himes](#)
- BestoSys (2023) [BestoSys](#)

SAMPLE CODE

Imports System.IO

Imports iTextSharp.text

Imports iTextSharp.text.pdf

Imports MySql.Data.MySqlClient

Public Class WebForm1

Inherits System.Web.UI.Page

Public Sub change(sender As Object, e As EventArgs) Handles bb1.Click,

bb2.Click, bb3.Click, bb4.Click, bb5.Click, bb6.Click, bb7.Click, bb8.Click, bb9.Click, bb10.Click,

bb11.Click, bb12.Click, bb13.Click, bb14.Click, bb15.Click, bb16.Click, bw1.Click,

bw2.Click, bw3.Click, bw4.Click, bw5.Click, bw6.Click, bw7.Click, bw8.Click, bw9.Click, bw10.Click,

SAMPLE CODE

```
Dim but As Button = sender

If but.Attributes("style") = "background-color: white" Then
    but.Attributes("style") = "background-color: black"
    but.ForeColor = Drawing.Color.White
ElseIf but.Attributes("style") = "background-color: black" Then
    but.Attributes("style") = "background-color: red"
    but.ForeColor = Drawing.Color.White
ElseIf but.Attributes("style") = "background-color: red" Then
    but.Attributes("style") = "background-color: green"
    but.ForeColor = Drawing.Color.White
Else
    but.Attributes("style") = "background-color: white"
    but.ForeColor = Drawing.Color.Black
End If
End Sub
```

THANK YOU