GOVERNMENT POLYTECHNIC, PUNE

(An Autonomous Institute of Government of Maharashtra)

DEPARTMENT OF COMPUTER ENGINEERING

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PROJECT REPORT

ON

"Hospital Portal"

SUBMITTED BY

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UNDER THE GUIDANCE

OF

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GOVERNMENT POLYTECHNIC, PUNE

(An Autonomous Institute of Government of Maharashtra)

CERTIFICATE

This is to certify that

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Of class Third Year (2022-23) have successfully completed project on **"Hospital Portal"** under the guidance of "**Mrs.A.A.Shaikh**" in parallel fulfilment of requirement for the award of Diploma in Computer Engineering from Government Polytechnic, Pune.

Mrs. A.A.Shaikh	**Mrs. M.V.Kokate**	**Dr.V.S.Bandal**
(Internal Guide)	(H.O.D)	(Principal)

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INDEX

LIST OF FIGURES

LIST OF TABLES

ABSTRACT

Nowadays, **Hospital Portal** is one of the most essential requirements that are mostly used in Testing Lab. It is mostly used to manage medical test related activities.

In this project we tried to develop a computerized and web based Medical Testing management system. Our main intention is to allow this application to be used in most retailing hospitals or lab. This system is designed to overcome all challenges related to the management of diagnostic that were used to be handled locally and manually.

The system is an online Hospital portal application that brings up various test working online, appointment of doctor, managing reports, etc. Using this system, it will help us to records all transaction made at the daily tests, recognize all customers, employees, etc. It will manage all activities around the hospital that increases productivity and maximize profit, it will also be minimizing the risk of getting loss because all transactions are recorded to the system.

Chapter 1
Introduction

1.1 Overview:

Hospital Portal is web-based technology which brings up various diagnosis works online. Here patients are first allowed to register on the website and provide personal, test information. Once registered with their address and contact details, the patients may now see a variety of tests conducted by the lab. The patient will select the required test and book appointment after that lab centre send a lab boy at registered address to collect a sample. After successful sample collection patient can track their test history using the name, order, and registered mobile number. The system allows admin to attach a copy of the report into the system and automatically shown on user side so user can download report.

In Hospital Portal, we use PHP and MySQL database. It has three modules i.e.

1. **Admin**
2. **User (Patient)**

1.2 Admin Module:

Admin is the super user of the website who can manage everything on the website. Admin can log in through the login page

- **Dashboard:** In this section, the admin can see all detail in brief like the total, assigned and the sample collected and completed tests.
- **Pathologist:** In this section, the admin can manage Phlebotomist (add, update, delete).
- **Testing**: In this section, the admin can manage all the tests like assign the test to Pathologist and update the history.
- **Report:** In this section, the admin can generate two types of report. One is between dates reports and another one is by search. Admin can search the report by order number, name, and mobile number.
- **Notification:** In this section, the admin will get a notification for every new test request (notification bell).
- Admin can also update his profile, change the password, and recover the password

1.3 User (Patient) Module

- User can visit the application through a URL.
- **Testing:** This section divided into two parts. One is for new user and another one is for registered user. New user (First-time user) needs to provide personal and testing Information. A registered user only needs to provide test information; their personal information will be fetched from the database.
- **Report:** In this section, Users can search their test report using order number, name, and registered mobile number.
- **Dashboard:** In this section, the User can see the in which State of how many tests are done.

1.4 Purpose

The main purpose of Hospital Portal to provide a platform where patients can book the test online and get their Hospital Test Report done at home. With the help of this project, we are bringing the use of technology in the field of medical diagnosis where patients can avail all the diagnosis facilities at their door steps. Another purpose for developing this application is to generate the report automatically.

1.5 Scope

Today also we must go to the Hospital, wait in the queue to get our medical test done. As Technology is growing rapidly, we are also moving to a technical world where everything we want to be online. So with the help of this project, we are bringing the use of technology in the field of medical diagnosis where patients can avail all the diagnosis facilities at their door steps. This project makes the diagnosis process easy and reduces the burden of patients. At a same time, its help the diagnostic centre to track all their patients details with their test reports. This access friendly software provides quick and effective services which helps the diagnostic centre to increase their sales and profit.

Advantages:

- The system allows automate diagnosis system.
- Allows for faster service.
- Allows increased sales and profits for diagnostic labs.
- Easy, user-friendly GUI.
- Validation of data will be ensuring only accurate valid and complete data stored in the database.

Chapter 2

Requirement Analysis

This chapter will explore the system requirement analysis (Functional and non-functional requirements) and requirement specifications.

2.1 Hardware Requirements:

Client Side:

RAM	512 MB
Hard disk	10 GB
Processor	1.0 GHz

Server side:

RAM	1 GB
Hard disk	20 GB
Processor	2.0 GHz

2.2 Software Requirement:

Client Side:

Web Browser	Google Chrome or any compatible browser
Operating System	Windows or any equivalent OS

Server Side:

Web Server	APACHE
Server side Language	PHP5.6 or above version
Database Server	MYSQL
Web Browser	Google Chrome or any compatible browser
Operating System	Windows or any equivalent OS

2.3 APACHE

The Apache HTTP Server Project is an effort to develop and maintain an open-source HTTP server for modern operating systems including UNIX and Windows. The goal of this project is to provide a secure, efficient and extensible server that provides HTTP services in sync with the current HTTP standards.

The Apache HTTP Server ("httpd") was launched in 1995 and it has been the most popular web server on the Internet since April 1996. It has celebrated its 20th birthday as a project in February 2015.

2.4 PHP

- PHP stands for PHP: Hypertext Preprocessor.
- PHP is a server-side scripting language, like ASP.
- PHP scripts are executed on the server.
- PHP supports many databases (MYSQL, Informix, Oracle, Sybase, Solid, Generic ODBC, etc.).
- PHP is an open source software.
- PHP is free to download and use.

2.5 MYSQL

- MYSQL is a database server
- MYSQL is ideal for both small and large applications
- MYSQL supports standard SQL

- MYSQL compiles on a number of platforms
- MYSQL is free to download and use
- **How to access MySQL:**
- http://localhost/phpmyadmin (link)

Chapter 3

Analysis and Design

3.1 Analysis:

Today also we have to go to the diagnostic centre, wait in the queue to get our Hospital test done. As Technology is growing rapidly, we are also moving to a technical world where everything we want to be online. So, with the help of this project, we are bringing the use of technology in the field of medical diagnosis where patients can avail all the diagnosis facilities at their door steps. This project makes the diagnosis process easy and reduces the burden of patients. At a same time, its help the diagnostic centre to track all their patients details with their test reports.

3.2 Disadvantage of present system:

Not user friendly: The present system not user friendly because data is not stored in structure and proper format.

Manual Control: All report calculation is done manually so there is a chance of error.

Lots of paper work: Visitors maintain in the register so lots of paper require storing details.

Time consuming

3.3 Design Introduction:

Design is the first step in the development phase for any techniques and principles for the purpose of defining a device, a process or system in sufficient detail to permit its physical realization. Once the software requirements have been analysed and specified the software design involves three technical activities - design, coding, implementation and testing that are required to build and verify the software.

The design activities are of main importance in this phase, because in this activity, decisions ultimately affecting the success of the software implementation and its ease of maintenance are made. These decisions have the final bearing upon reliability and maintainability of the system. Design is the only way to accurately translate the customer’s requirements into finished software or a system.

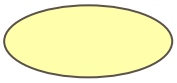
Design is the place where quality is fostered in development. Software design is a process through which requirements are translated into a representation of software. Software design is conducted in two steps. Preliminary design is concerned with the transformation of requirements into data

3.4 UML Diagrams:

Actor:

A coherent set of roles that users of use cases play when interacting with the use cases.

Use case: A description of sequence of actions, including variants, that a system performs that yields an observable result of value of an actor.



UML stands for Unified Modelling Language. UML is a language for specifying, visualizing and documenting the system. This is the step while developing any product after analysis. The goal from this is to produce a model of the entities involved in the project which later need to be built. The representation of the entities that are to be used in the product being developed need to be designed.

3.5 USECASE DIAGRAMS:

Use case diagrams model behaviour within a system and helps the developers understand of what the user require. The stick man represents what's called an actor.

Use case diagram can be useful for getting an overall view of the system and clarifying that can do and more importantly what they can't do.

Use case diagram consists of use cases and actors and shows the interaction between the use case and actors.

- The purpose is to show the interactions between the use case and actor.
- To represent the system requirements from user's perspective.
- An actor could be the end-user of the system or an external system.

USECASE DIAGRAM: A Use case is a description of set of sequence of actions. Graphically it is rendered as an ellipse with solid line including only its name. Use case diagram is a behavioural diagram that shows a set of use cases and actors and their relationship. It is an association between the use cases and actors. An actor represents a real-world object. Primary Actor – Sender, Secondary Actor Receiver.