Covid Testing Management

PROJECT REPORT

Submitted By

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Under the supervision of

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fulfilment of the degree of Bachelor of Technology in Computer Science and Engineering



CERTIFICATE

This is to certify that the report entitled Covid Testing Management Application submitted by K.Aswini fulfilment of the requirements for the award of Bachelor of Technology in Computer Science and Engineering is a bonafide work carried out by her under my supervision and guidance.

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Assistant Professor, Computer Science RGUKT,RK Valley



DECLARATION

We are hereby declare that this report entitled "Covid Testing Management" submitted by me under the guidance and supervision of Mr.N Satyanandaram is a bonafide work. we also declare that it has not been submitted previously in part or in full to this University or other University or Institution for the award of any degree or diploma.

Date: 28-04-2022

K.Aswini(R161563) Place:RK Valley



ACKNOWLEDGMENTS

The success and final outcome of this project required a lot of guidance and assistance from many people and I am extremely privileged to have got this all along the completion of my project. All that I have done is only due to such supervision and assistance and we would not forget to thank them.

We would like to express my sincere gratitude to **N** Satyanandaram sir for valuable suggestions and keen interest throughout the progress of my project.

At the outset, We would like to thank **Rajiv Gandhi** University of Knowledge and Technologies, R.K Valley for providing all the necessary resources for the successful completion of my course work.

With Sincere Regards, K.Aswini

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ABSTRACT

The Purpose of Covid Testing Management is to collect the samples from the patients and send them for Testing. The Phlebotomist will test the samples and upadate the status of the sample whether it is on the lab or the report is done.

The user will login and he can check the report .If he wants to download he can download the report.If the user is new then he can add his details and get signed in for the test.In the dashboard the User can see in which State of how many tests are done.

Basically the project describes how to manage quick response for patients and better services for the patients which helps them for the better and quick treatment.

INTRODUCTION

The main Objective of this project is to design a dynamic, responsive website and an online Framework for Covid Testing Management System Website or web application with full-fledged logic and Environment: using new trending technologies in market with maximum functionalities, Efficiency, maximum optimal speed on web and one key feature, it must be more Informative.

SYSTEM REQUIREMENTS

HardwareRequirements

Processor: Dualcore

HDD: 250 GB

RAM:4GB

Mouse :Optical Mouse

SoftwareRequirements

OperatingSystem :

UBUNTU

CodingLanguage :

PHP

FrontEnd	:	

HTML,JavaScript

Software : Xampp

Functional Requirements

INPUT DESIGN:

Input Design is the process of converting a user-oriented description of the input into a computer-based system. This design is important to avoid errors in the data input process and show the correct direction to the management for getting correct information from the computerized system. The objectives of input design are as follows:

- To design data entry and input procedures
- To reduce input volume
- To design input data records, data entry screens, user interface screens, etc.
- To use validation checks and develop effective input controls

OUTPUT DESIGN:

The design of output is the most important task of any system. During output design, developers identify the type of output needed, and consider the necessary output controls and prototype report layouts.

Objectives of Output Design:

The objectives of input design are as follows:

- To develop output design that serves the intended purpose and eliminates the production of unwanted output.
- To develop the output design that meets the end user requirements.
- To deliver the appropriate quantity of output.
- To form the output in appropriate format and direct it to the right person.
- To make the output available on time for making good decisions.

DATABASE DESIGN:

Database design is the process of producing a detailed data of database. This data contains all the needed logical and physical design choices and physical storage parameters needed to generate a design in a data definition language, which can then be used to create a database. A fully attributed data car contains detailed attributes for each entity. The term database design can be used to describe many different parts of the design of an overall database system. Principally, and most correctly, it can be thought of as the logical design of the base data structures used to store the data. In the relational these are the tables and views. In an object database the entities and relationships map directly to object classes and named relationships. However, the term database design could also be used to apply to the overall process of designing, not just the base data structures, but also the forms and queries used as part of the overall database application within the database management system (DBMS).

SYSTEM TOOLS

The various system tools that have been used in developing both the front end and the back end of the project are being discussed in this chapter.

FRONT END:

HTML and CSS are utilized to implement the frontend.

HTML and CSS

Hypertext Markup Language (HTML) is the standard markup language for creating web pages and web applications. With Cascading Style Sheets (CSS) and JavaScript, it forms a triad of cornerstone technologies for the World Wide Web. HTML elements are the building blocks of HTML pages. With HTML constructs, images and other objects such as interactive forms may be embedded into the rendered page. HTML provides a means to create structured documents by denoting structural semantics for text such as headings, paragraphs, lists,

links, quotes and other items. HTML elements are delineated by tags, written using angle brackets. Tags such as and <input /> directly introduce content into the page. Other tags such as surround and provide information about document text and may include other tags as sub-elements. Browsers do not display the HTML tags but use them to interpret the content of the page.

BACK END

The back end is implemented using XAMPP SQL Server which is used to design the databases.

XAMPP Server:

XAMPP is one of the widely used cross-platform web servers, which helps developers to create and test their programs on a local webserver. It was developed by the Apache Friends, and its native source code can be revised or modified by the audience. It consists of Apache HTTP Server, MariaDB, and interpreter for the different programming languages like PHP and Perl. It is available in 11 languages and supported by different platforms such as the IA-32 package of Windows & x64 package of macOS and Linux.

XAMPP is an abbreviation where X stands for Cross-Platform, A stands for Apache, M stands for MYSQL, and the Ps stand for PHP and Perl, respectively. It is an open-source package of web solutions that includes Apache distribution for many servers and command-line executables along with modules such as Apache server, MariaDB, PHP, and Perl.

• FUNCTIONALITIES:

This application comprises of two modules, Admin and Users(patients).

Admin module:-

Admin is the superuser 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.
- **Phlebotomist:** 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 Phlebotomist 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.
- Users(patients) 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.

SAMPLE CODE

Index.php:

```
<!DOCTYPE html>
  <html lang="en">
  <head>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-</pre>
  scale=1, shrink-to-fit=no">
    <meta name="description" content="">
    <meta name="author" content="">
    <title>Covid-19 Testing Management System</title>
    <!-- Bootstrap core CSS -->
    <link href="vendor/bootstrap/css/bootstrap.min.css"</pre>
  rel="stylesheet">
    <!-- Custom styles for this template -->
    <link href="css/scrolling-nav.css" rel="stylesheet">
  </head>
  <body id="page-top">
```

```
<!-- Navigation -->
 <nav class="navbar navbar-expand-lg navbar-dark bg-dark fixed-
top" id="mainNav">
  <div class="container">
   <a class="navbar-brand js-scroll-trigger" href="#page-
top">Covid19-TMS</a>
   <button class="navbar-toggler" type="button" data-
toggle="collapse" data-target="#navbarResponsive" aria-
controls="navbarResponsive" aria-expanded="false" aria-
label="Toggle navigation">
    <span class="navbar-toggler-icon"></span>
   </button>
   <div class="collapse navbar-collapse" id="navbarResponsive">
    cli class="nav-item">
      <a class="nav-link js-scroll-trigger" href="#about">About
Coronavirus </a>
     <a class="nav-link js-scroll-trigger"
href="#services">Covid-19 Symptoms</a>
     cli class="nav-item">
      <a class="nav-link js-scroll-trigger"
href="#contact">Prevention</a>
```

```
<a class="nav-link js-scroll-trigger" href="new-user-
testing.php">Testing</a>
    <a class="nav-link js-scroll-trigger" href="live-test-
updates.php">Live Updates</a>
    <a class="nav-link js-scroll-trigger"
href="login.php">Admin</a>
    </div>
 </div>
</nav>
<header class="bg-primary text-white">
 <div class="container text-center">
  <h1>COVID19-TMS</h1>
  COVID19 - Testing Management System
 </div>
 </header>
```

```
<section id="about">
<div class="container">
<div class="row">
<div class="row">
<div class="col-lg-8 mx-auto">
<h2>About this page</h2>
```

Coronavirus disease (COVID-19) is an infectious disease caused by a newly discovered coronavirus. Most people infected with the COVID-19, virus will experience mild to moderate, respiratory illness & recover without requiring special treatment. Older people and those with underlying medical problem like cardiovascular disease.

The COVID-19 virus spread primarily
through droplet of saliva or discharge from the nose when an
infected person coughs or sneezes so it's important that you also
practice respiratory etiquette.

```
</div>
</div>
</div>
</section>

<section id="services" class="bg-light">
<div class="container">
<div class="row">
<div class="row">
<div class="row">
```

```
<h2>Covid-19 Symptoms</h2>
     <hr/>
<strong>Hight Fever 2-14 days!</strong><br/>
Reported illnesses have ranged from mild symptoms to severe
illness and death
       <hr/>
<strong>Dry Cough 2-14 days!</strong><br/>
Reported illnesses have ranged from mild symptoms to severe
illness and death
     <hr/>
<strong>Shortness of breath!</strong><br/>
Reported illnesses have ranged from mild symptoms to severe
illness and death
    </div>
   </div>
  </div>
 </section>
 <section id="contact">
  <div class="container">
   <div class="row">
    <div class="col-lg-8 mx-auto">
     <h2>Prevention</h2>
 \langle ul \rangle
      Wash your Hands often
       Vear A Face mask
```

```
Avoid contact with sick people
      Always cover your cough or sneeze
     </div>
   </div>
  </div>
 </section>
 <!-- Footer -->
 <footer class="py-5 bg-dark">
  <div class="container">
   Copyright © Aswini
2022
  </div>
  <!-- /.container -->
 </footer>
 <!-- Bootstrap core JavaScript -->
 <script src="vendor/jquery/jquery.min.js"></script>
 <script
src="vendor/bootstrap/js/bootstrap.bundle.min.js"></script>
 <!-- Plugin JavaScript -->
 <script src="vendor/jquery-easing/jquery.easing.min.js"></script>
 <!-- Custom JavaScript for this theme -->
```

```
<script src="js/scrolling-nav.js"></script>
</body>
</html>
Login.php:
<?php
session_start();
include('includes/config.php');
if(isset($_POST['login']))
 {
  $uname=$_POST['username'];
  $Password=md5($_POST['inputpwd']);
  $query=mysqli_query($con,"select ID from tbladmin where
AdminuserName='$uname' && Password='$Password' ");
  $ret=mysqli_fetch_array($query);
  if($ret>0){
   $_SESSION['aid']=$ret['ID'];
   header('location:dashboard.php');
  else{
  echo "<script>alert('Invalid Details.');</script>";
  }
```

```
}
 ?>
<!DOCTYPE html>
<html lang="en">
Dashboard.php:
<?php
session_start();
include_once('includes/config.php');
if (strlen($_SESSION['aid']==0)) {
 header('location:logout.php');
 } else{
?>
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="utf-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-</pre>
scale=1, shrink-to-fit=no">
  <meta name="description" content="">
```

```
<meta name="author" content="">
  <title>Covid-Tms | Dashboard</title>
  <!-- Custom fonts for this template-->
  <link href="vendor/fontawesome-free/css/all.min.css"</pre>
rel="stylesheet" type="text/css">
  link
href="https://fonts.googleapis.com/css?family=Nunito:200,200i,300,
300i,400,400i,600,600i,700,700i,800,800i,900,900i"
     rel="stylesheet">
  <!-- Custom styles for this template-->
  <link href="css/sb-admin-2.min.css" rel="stylesheet">
</head>
<body id="page-top">
  <!-- Page Wrapper -->
  <div id="wrapper">
     <!-- Sidebar -->
    <?php include_once('includes/sidebar.php');?>
     <!-- End of Sidebar -->
```

```
<!-- Content Wrapper -->
    <div id="content-wrapper" class="d-flex flex-column">
       <!-- Main Content -->
       <div id="content">
         <!-- Topbar -->
<?php include_once('includes/topbar.php');?>
         <!-- End of Topbar -->
         <!-- Begin Page Content -->
         <div class="container-fluid">
            <!-- Page Heading -->
            <div class="d-sm-flex align-items-center justify-
content-between mb-4">
              <h1 class="h3 mb-0 text-gray-800">Dashboard</h1>
              <a href="bwdates-report-ds.php" class="d-none d-
sm-inline-block btn btn-sm btn-primary shadow-sm"><i
                   class="fas fa-download fa-sm text-white-
50"></i> Generate Report</a>
            </div>
            <!-- Content Row -->
            <div class="row">
```

```
<?php
//Total tests
$query=mysqli_query($con,"select id from tbltestrecord");
$totaltest=mysqli_num_rows($query);
//Assigned tests
$query1=mysqli_query($con,"select id from tbltestrecord where
ReportStatus='Assigned'");
$totalassigned=mysqli_num_rows($query1);
//On the way for sample collection
$query2=mysqli_query($con,"select id from tbltestrecord where
ReportStatus='On the Way for Collection'");
$totalontheway=mysqli_num_rows($query2);
//Sample Collected
$query3=mysqli_query($con,"select id from tbltestrecord where
ReportStatus='Sample Collected'");
$totalsamplecollected=mysqli_num_rows($query3);
//Sent for lab
$query4=mysqli_query($con,"select id from tbltestrecord where
ReportStatus='Sent to Lab'");
$totalsenttolab=mysqli_num_rows($query4);
//Report Delivered
$query5=mysqli_query($con,"select id from tbltestrecord where
ReportStatus='Delivered''');
$totaldelivered=mysqli_num_rows($query5);
```

```
//Totall Registered Patients
$query6=mysqli_query($con,"select id from tblpatients");
$totalpatients=mysqli_num_rows($query6);
//Totall Registered Phlebotomist
$query7=mysqli_query($con,"select id from tblphlebotomist");
$totalphlebotomist=mysqli_num_rows($query7);
?>
               <!-- Total Tests-->
               <div class="col-xl-3 col-md-6 mb-4">
                 <div class="card border-left-primary shadow h-</pre>
100 py-2">
                   <a href="all-test.php">
                    <div class="card-body">
                      <div class="row no-gutters align-items-</pre>
center">
                         <div class="col mr-2">
                           <div class="text-xs font-weight-bold</pre>
text-primary text-uppercase mb-1">
                            Total Tests</div>
```

```
<div class="h5 mb-0 font-weight-bold</pre>
text-gray-800"><?php echo $totaltest;?></div>
                         </div>
                         <div class="col-auto">
                            <i class="fas fa-virus fa-2x text-gray-</pre>
300"></i>
                         </div>
                       </div>
                    </div>
                  </a>
                  </div>
               </div>
               <!-- Assigned test-->
               <div class="col-xl-3 col-md-6 mb-4">
                  <div class="card border-left-success shadow h-100"</pre>
py-2">
                    <a href="assigned-test.php">
                    <div class="card-body">
                       <div class="row no-gutters align-items-
center">
                         <div class="col mr-2">
                            <div class="text-xs font-weight-bold</pre>
text-success text-uppercase mb-1">
                             Total Assigned</div>
```

```
<div class="h5 mb-0 font-weight-bold</pre>
text-gray-800"><?php echo $totalassigned;?></div>
                         </div>
                         <div class="col-auto">
                            <i class="fas fa-user fa-2x text-gray-</pre>
300"></i>
                         </div>
                       </div>
                    </div>
                 </a>
                 </div>
               </div>
               <!-- On the way for sample collection-->
               <div class="col-xl-3 col-md-6 mb-4">
                 <div class="card border-left-info shadow h-100"</pre>
py-2">
                    <a href="ontheway-samplecollection-test.php">
                    <div class="card-body">
                       <div class="row no-gutters align-items-
center">
                         <div class="col mr-2">
                            <div class="text-xs font-weight-bold</pre>
text-info text-uppercase mb-1"> On the way for sample collection
                            </div>
```

```
<div class="row no-gutters align-items-</pre>
center">
                             <div class="col-auto">
                                <div class="h5 mb-0 mr-3 font-</pre>
weight-bold text-gray-800"><?php echo $totalontheway;?></div>
                             </div>
                              <div class="col">
                             </div>
                           </div>
                        </div>
                        <div class="col-auto">
                           <i class="fas fa-motorcycle fa-2x text-
gray-300"></i>
                        </div>
                      </div>
                   </div>
                 </a>
                 </div>
               </div>
              <!-- Sample Collected -->
               <div class="col-xl-3 col-md-6 mb-4">
                 <div class="card border-left-warning shadow h-
100 py-2">
                   <a href="sample-collected-test.php">
```

```
<div class="card-body">
                      <div class="row no-gutters align-items-
center">
                         <div class="col mr-2">
                           <div class="text-xs font-weight-bold</pre>
text-warning text-uppercase mb-1">
                             Sample Collected</div>
                           <div class="h5 mb-0 font-weight-bold</pre>
text-gray-800"><?php echo $totalsamplecollected;?></div>
                         </div>
                         <div class="col-auto">
                           <i class="fas fa-prescription-bottle fa-2x</pre>
text-gray-300"></i>
                         </div>
                      </div>
                    </div>
                    </a>
                 </div>
               </div>
<!-- Sent to Lab -->
               <div class="col-xl-3 col-md-6 mb-4">
                 <div class="card border-left-warning shadow h-
100 py-2">
                    <a href="samplesent-lab-test.php">
                    <div class="card-body">
```

```
<div class="row no-gutters align-items-
center">
                         <div class="col mr-2">
                           <div class="text-xs font-weight-bold</pre>
text-warning text-uppercase mb-1">
                            Sample Sent to Lab</div>
                           <div class="h5 mb-0 font-weight-bold</pre>
text-gray-800"><?php echo $totalsenttolab;?></div>
                         </div>
                         <div class="col-auto">
                           <i class="fas fa-microscope fa-2x text-
gray-300"></i>
                         </div>
                      </div>
                    </div>
                    </a>
                 </div>
               </div>
  <!-- Report Delivered-->
               <div class="col-xl-3 col-md-6 mb-4">
                 <div class="card border-left-info shadow h-100"</pre>
py-2">
                    <a href="reportdelivered-test.php">
                    <div class="card-body">
                      <div class="row no-gutters align-items-
center">
```

```
<div class="col mr-2">
                           <div class="text-xs font-weight-bold</pre>
text-info text-uppercase mb-1">Report Delivered
                           </div>
                           <div class="row no-gutters align-items-
center">
                              <div class="col-auto">
                                <div class="h5 mb-0 mr-3 font-</pre>
weight-bold text-gray-800"><?php echo $totaldelivered;?></div>
                              </div>
                              <div class="col">
                              </div>
                           </div>
                         </div>
                         <div class="col-auto">
                           <i class="fas fa-clipboard-list fa-2x text-
gray-300"></i>
                         </div>
                      </div>
                    </div>
                 </a>
                 </div>
               </div>
```

<!-- Total Registered Patients-->

```
<div class="col-xl-3 col-md-6 mb-4">
                 <div class="card border-left-primary shadow h-</pre>
100 py-2">
                    <div class="card-body">
                      <div class="row no-gutters align-items-
center">
                         <div class="col mr-2">
                           <div class="text-xs font-weight-bold</pre>
text-primary text-uppercase mb-1">
                            Total Registered Patients</div>
                           <div class="h5 mb-0 font-weight-bold</pre>
text-gray-800"><?php echo $totalpatients;?></div>
                         </div>
                         <div class="col-auto">
                           <i class="fas fa-users fa-2x text-gray-
300"></i>
                         </div>
                      </div>
                    </div>
                 </div>
               </div>
```

<!-- Total Registered Phlebotomist-->

```
<div class="col-xl-3 col-md-6 mb-4">
                 <div class="card border-left-success shadow h-100"</pre>
py-2">
                        <a href="manage-phlebotomist.php">
                    <div class="card-body">
                      <div class="row no-gutters align-items-</pre>
center">
                         <div class="col mr-2">
                           <div class="text-xs font-weight-bold</pre>
text-success text-uppercase mb-1">
                             Total Registered Phlebotomist</div>
                            <div class="h5 mb-0 font-weight-bold</pre>
text-gray-800"><?php echo $totalphlebotomist;?></div>
                         </div>
                         <div class="col-auto">
                           <i class="fas fa-user-nurse fa-2x text-
gray-300"></i>
                         </div>
                      </div>
                    </div>
                     </a>
                 </div>
               </div>
```

```
</div>
<!-- Content Row -->
```

```
<!-- Footer -->
<!-- Footer -->
<!-- End of Footer -->

</div>
<!-- End of Content Wrapper -->

</div>
<!-- End of Page Wrapper -->

<!-- End of Page Wrapper -->

<!-- Scroll to Top Button-->

<!-- Bootstrap core JavaScript-->

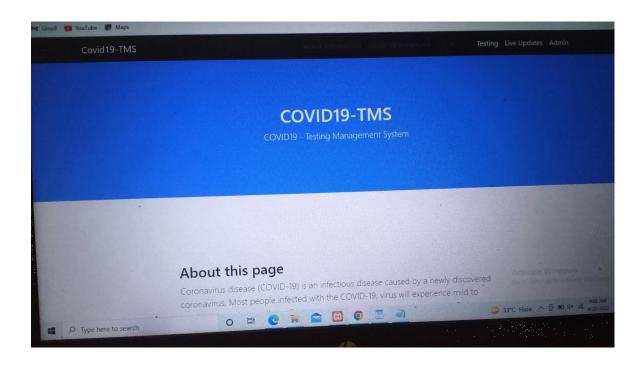
<script src="vendor/jquery/jquery.min.js"></script>
<script

src="vendor/bootstrap/js/bootstrap.bundle.min.js"></script>
```

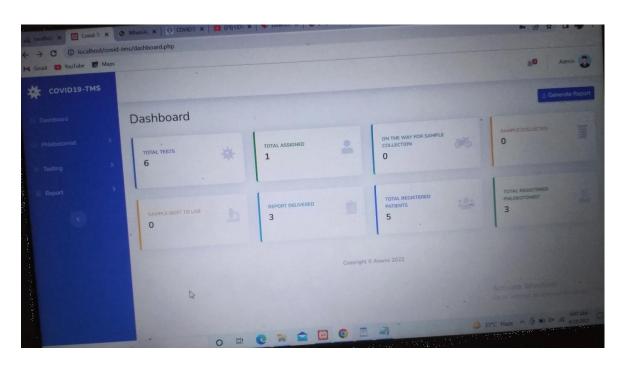
```
<!-- Core plugin JavaScript-->
  <script src="vendor/jquery-</pre>
easing/jquery.easing.min.js"></script>
  <!-- Custom scripts for all pages-->
  <script src="js/sb-admin-2.min.js"></script>
  <!-- Page level plugins -->
  <script src="vendor/chart.js/Chart.min.js"></script>
  <!-- Page level custom scripts -->
  <script src="js/demo/chart-area-demo.js"></script>
  <script src="js/demo/chart-pie-demo.js"></script>
</body>
</html>
<?php } ?>
```

OUTPUT SCREENSHOTS

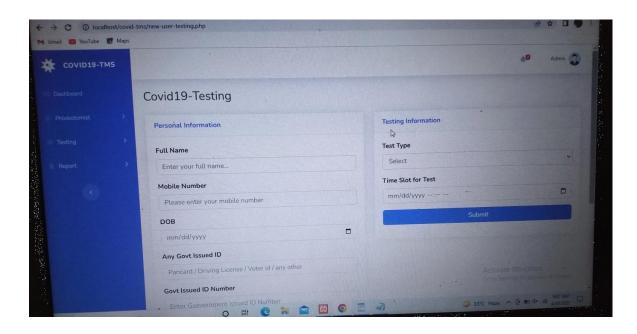
Home Page



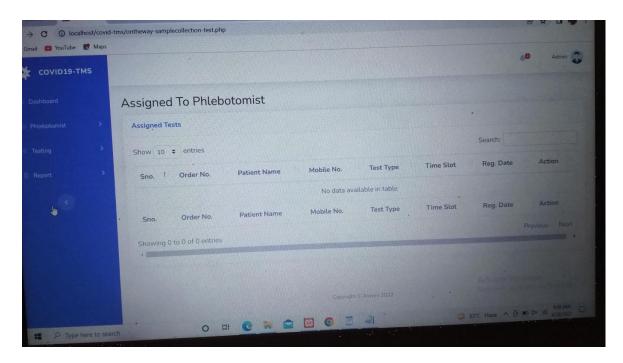
DashBoard



Testing page



Assigned Page



NON-FUNCTIONAL REQUIREMENTS:

Reliability:

User should get appropriate information about his complaint

Usability:

This tool should has user friendly GUI. User can use it effectively. Availability: Using should get information 24x7. User can access at any time with this tool

Accessibility:

This tool support multi user accessing. Any user can access the system from different places to use the tool.

Performance:

User should have fast access to get the information from the help center. User should retrieve the information from help center database veryquickly.

Security:

As it is a web based application it should be more secure in order to save help centers confidential data from hackers.

Platform Compatibility:

This tool has to work on any kind of operating system withoutmodifying it.

CONCLUSION:

The Covid Testing Management System Website developed using php fully meets the objectives of the system which it has been developed.

The system has reached a steady state where all bugs have been eliminated.

The system is operated at a high level of efficiency and all the teachers and user associated with the system understands its advantage.

The system solves the problem, it was intended to solve as requirement specification.

An attempt has been made to develop an Application using a Database Software which meets all the necessary requirements that were set out. It is user friendly and provides an easy interaction for the user.

The user can very easily use this tool to manipulate a Database created. The interface is mouse and keyboard driven and the user can select the options to edit or insert data. It is helpful for any of the users to access the data and analyze the data.

Hence it is helpful for us even to take up this field as our career and develop some other features in SQL and provide some contribution from our side in the development of this field.

We can even make further make inclusions like adding many other Testing data and adding many other cool features that can attract the users attention so that many users can use this website for the faster results.

FUTURE SCOPE:

- Number of Product owners can register to the Application for increase their sale.
- This application can be used by any user to take covid test and get appropriate information by downloading the reports.