1151CS204 - WEB PROGRAMMING

Lab report submitted in partial fulfillment of the requirement for award of the degree of

Bachelor of Technology in Computer Science & Engineering

By

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DEPARTMENT OF COMPUTER SCIENCE & ENGINEERINGSCHOOL OF COMPUTING

VEL TECH RANGARAJAN DR. SAGUNTHALA R&D INSTITUTE OF SCIENCE AND TECHNOLOGY

(Deemed to be University Estd u/s 3 of UGC Act, 1956)
Accredited by NAAC with A Grade
CHENNAI 600 062, TAMILNADU, INDIA
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School of Computing

Department of Computer Science and Engineering

ACADEMIC YEAR 2022 – 2023 (Winter Semester)

BONAFIDE CERTIFICATE

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Submitted for the Semester Examination held on_ Dr. Sagunthala R & D Institute of Science and Te	
EXAMINER 1	EXAMINER 2

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Task: 1	Develop a simple web site including all the information
Date:	using HTML 5 and CSS 3

Aim:

To develop a simple web site including all the information using HTML5 and CSS3

Procedure:

- 1. Install MS Visual studio code
- 2. Create HTML File
- 3. Create CSS File
- 4. Link CSS File in HTML File using link tag
- 5. Write necessary code

Program:

index.html

```
<!DOCTYPE html> <!-- The new doctype -->
<html>
  <head>
       <meta http-equiv="Content-Type" content="text/html; charset=utf-8" />
      <title>Task 1</title>
       k rel="stylesheet" type="text/css" href="styles.css" />
    </head>
  <body>
      <section id="page">
      <header>
       <hgroup>
           <img src="logo.png" width=30%>
           <h3>and a fancy slogan</h3>
         </hgroup>
      <nav class="clear"> <!-- The nav link semantically marks your main site navigation --
>
           \langle ul \rangle
             <a href="#article1">About Us</a>
             <a href="#article2">CSE</a>
             <a href="#article3">Placement</a>
           </nav>
       </header>
       <section id="articles">
       <div class="line"></div>
         <article id="article1">
           <h2>Photoshoot Effect</h2>
```

Vel Tech is well-known for its renowned educational practices, which has been recognized and endowed with several awards. The founders of the Institution, Col. Prof. Vel. Dr. R. Rangarajan Chancellor & Founder President and Dr. Sagunthala Rangarajan Foundress President believes in Education for All despite their financial means which will promote and uplift the society.

In accord to their vision, Vel Tech Mahatma Gandhi Scholarship scheme was started and has supported students since the inception. Vel Tech has bestowed 9500 scholarships worth approximately Rs. 35 Crores until 2019.

Global Alliances of Vel Tech has working International Relations with more than 390 Institution across 30 countries and has entered in the Memorandum of Understanding (MoU) with 120 Institutions for various Academic and Research exchange activities. Students, Faculty members, and Researchers get the collaborative platform for Academic projects, explore leading best practices and Research work with International Universities. Vel Tech believes that there are no boundaries in the pursuit of knowledge. Through these strategic alliances with International Universities, the standard of education at Vel Tech would be on par with the best in the world.

```
</div>
</div>
</article>
</section>
<footer> <!-- Marking the footer section -->
<div class="line"></div>
Copyright 2023 - veltech.edu.in
<a href="#" class="up">Go UP</a>
</footer>
</section>
</body>
</html>
```

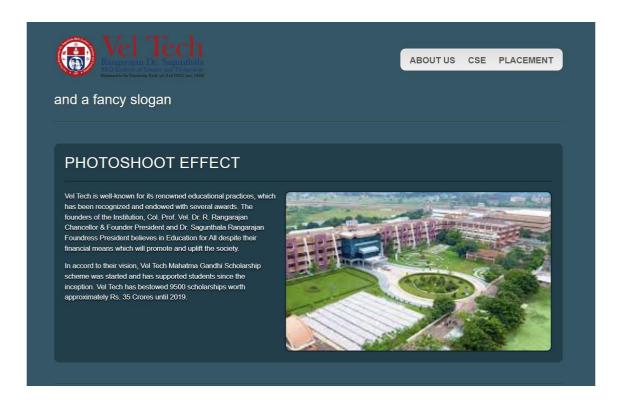
styles.css

```
*{
        /* Universal selector: */
        margin:0;
        padding:0;
}
header, footer,
article, section,
hgroup,nav,
figure{
        /* Giving a display value to the HTML5 rendered elements: */
        display:block;
}
body{
        /* Setting the default text color, size, page background and a font stack: */
        font-size:0.825em;
        color:#fcfcfc;
        background-color:#355664;
        font-family: Arial, Helvetica, sans-serif;
}
/* Hyperlink Styles: */
a, a:visited {
        color:#0196e3;
        text-decoration:none;
        outline:none;
}
a:hover{
        text-decoration:underline;
}
a img{
        border:none;
}
/* Headings: */
h1,h2 {
        font-family: "Myriad Pro", "Helvetica Neue", Helvetica, Arial, Sans-Serif;
        text-shadow:0 1px 1px black;
}
h1{
        /* The logo text */
        font-size:3.5em;
        padding:0.5em 0 0;
        text-transform:uppercase;
}
```

```
h2{
       font-size:2.2em;
       font-weight:normal;
       letter-spacing:0.01em;
       text-transform:uppercase;
}
p{
       line-height:1.5em;
       padding-bottom:1em;
}
.line{
       /* The dividing line: */
       height:1px;
       background-color:#24404c;
       border-bottom:1px solid #416371;
       margin:1em 0;
       overflow:hidden;
}
/* Article styles: */
#page{
       width:960px;
       margin:0 auto;
       position:relative;
}
article{
       background-color:#213E4A;
       margin:3em 0;
       padding:20px;
       text-shadow:0 2px 0 black;
}
figure{
       border:3px solid #142830;
       float:right;
       height:300px;
       margin-left:15px;
       overflow:hidden;
       width:500px;
}
figure:hover{
       -moz-box-shadow:0 0 2px #4D7788;
       -webkit-box-shadow:0 0 2px #4D7788;
       box-shadow:0 0 2px #4D7788;
}
figure img{
       margin-left:-60px;
```

```
}
/* Footer styling: */
footer{
    margin-bottom:30px;
    text-align:center;
    font-size:0.825em;
}

footer p{
    margin-bottom:-2.5em;
    position:relative;
}
```



Result:

Task: 2	Create home page, sign up and login page for clinic management
Date:	service using Bootstrap Framework

Aim:

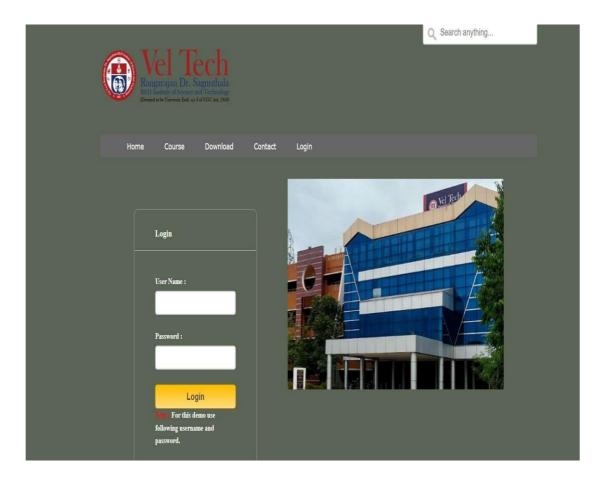
To create home page, sign up and login page for clinic management service using Bootstrap Framework.

Procedure:

- 1. Install MS Visual studio code
- 2. Create HTML File
- 3. Create CSS File
- 4. Link CSS File in HTML File using link tag
- 5. Write necessary code and include bootstrap framework

Program:

```
<div class="container">
<div class="main">
<h3>Login </h3><hr/>
<form id="form_id" method="post" name="myform">
<strong>User Name :</strong></br>
<input type="text" name="username" id="username"/></br>
<strong>Password :</strong></br>
<input type="password" name="password" id="password"/></br>
<input type="button" value="Login" id="submit" onclick="validate()"/>
</form>
<span><b class="note">Note : </b><strong>For this demo use following username
and password. <br/> <br/>b class="valid"><h4>User Name : Vel Tech<br/> Password :
CSE</b></h4></span></strong>
</div>
<div class="fugo">
<a href="images/Image.png"><img src="images/Image.png"/></a>
</div>
</div>
```



Result:

Task: 3	Validate the Registration, user login, user profile and payment by
Date:	credit card pages using JavaScript.

Aim:

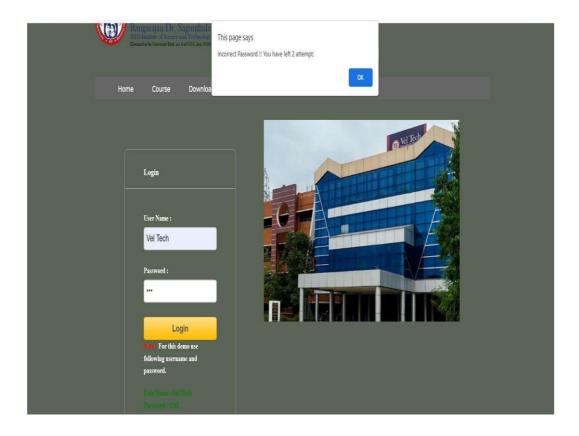
To validate the Registration, user login, user profile and payment by credit card pages using JavaScript.

Procedure:

- 1. Install MS Visual studio code
- 2. Create HTML File
- 3. Create CSS File
- 4. Link CSS File in HTML File using link tag
- 5. Write necessary code and include bootstrap framework
- 6. Create Javascript file for validation of login page

Program:

```
var attempt = 3; //Variable to count number of attempts
//Below function Executes on click of login button
function validate(){
      var username = document.getElementById("username").value;
      var password = document.getElementById("password").value;
      if ( username == "Vel Tech" && password == "CSE"){
             alert ("Login successfully");
             window.location = "success.html"; //redirecting to other page
             return false;
      else{
             attempt --;//Decrementing by one
             alert("Incorrect Password !! You have left "+attempt+" attempt;");
             //Disabling fields after 3 attemptsif( attempt== 0){
                     document.getElementById("username").disabled = true;
                     document.getElementById("password").disabled = true;
                     document.getElementById("submit").disabled = true;
                     return false;
             }
      }
}
```



Result:

Task: 4	Parse the web page to get the required information using JQuery
Date:	and DOM Traversing.

Aim:

To parse the web page to get the required information using JQuery and DOM Traversing.

Procedure:

- 1. Install MS Visual studio code
- 2. Create HTML File
- 3. Add jQuery link
- 4. Write necessary code to traverse the element
- 5. Save and run the program.

Program:

```
<!doctype html>
   <html lang="en">
   <head>
   <meta charset="utf-8">
   <title>jQuery.parseHTML demo</title>
   <script src="https://code.jquery.com/jquery-3.5.0.js"></script>
   </head>
   <body>
   <div id="log">
   <h3>Content:</h3>
   </div>
   <script>
   var $log = $( "#log" ),
   str = "hello, <b>my name is</b> jQuery.", html = $.parseHTML( str ),
   nodeNames = [];
   // Append the parsed HTML
   $log.append( html );
   // Gather the parsed HTML's node names
   $.each( html, function( i, el ) {
   nodeNames[ i ] = "" + el.nodeName + "";
   // Insert the node names
   $log.append( "<h3>Node Names:</h3>" );
   $( "" )
    .append( nodeNames.join( "" ) )
   .appendTo($log);
   </script>
   </body>
</html>
```

Content:

hello, my name is jQuery.

Node Names:

- 1. #text 2. B 3. #text

Result:

Task: 5

Date:

Implement a server-side logic using PHP to create three-tier applications for conducting online examination for displaying student mark list. Assume that student information is available in a database which has been stored in a database server.

Aim:

To implement a server-side logic using PHP to create three-tier applications for conducting online examination for displaying student mark list.

Procedure:

- Environment Setup
 - 1. Install XAMPP Web Server
 - 2. Open the XAMPP Control Panel.
 - 3. Start the Apache server by clicking on the Start button.
 - 4. Start the MySQL by clicking on the Start button.
 - 5. Create all the files needed for login.
 - 6. Create login table in the database using phpMyAdmin in XAMPP.
- Creation of Necessary Files
 - 1. index.html This file is created for the GUI view of the login page and empty field validation.
 - 2. style.css This file is created for the attractive view of the login form.
 - 3. connection.php Connection file contains the connection code for database connectivity.
 - 4. authentication.php This file validates the form data with the database which is submitted bythe user

Program:

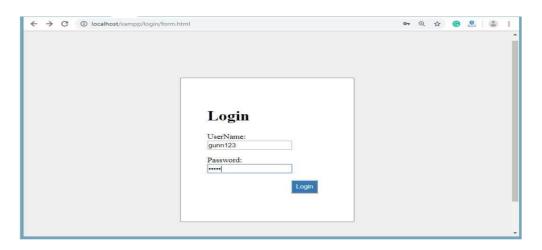
Connect to database:

```
<?php
    $host = "localhost";
    $user = "root";
    $password = ";
    $db_name = "CSE";
    $con = mysqli_connect($host, $user, $password, $db_name);
    if(mysqli_connect_errno()) {
        die("Failed to connect with MySQL: ". mysqli_connect_error());
    }
?>
```

Authenticating the Database

```
<?php
include('connection.php');
$username = $_POST['user'];
$password = $_POST['pass'];
$username = stripcslashes($username);
$password = stripcslashes($password);</pre>
```

```
$username = mysqli_real_escape_string($con, $username);
$password = mysqli_real_escape_string($con, $password);
$sql = "select *from login where username = '$username' and password = '$password'";
$result = mysqli_query($con, $sql);
$row = mysqli_fetch_array($result, MYSQLI_ASSOC);
$count = mysqli_num_rows($result);
if($count == 1){
    echo "<h1><center> Login successful </center></h1>";
}
else{
    echo "<h1> Login failed. Invalid username or password.</h1>";
}
?>
```



Result:

Task:6	Create a simple HTTP web server using Node.js to generate a
Date:	dynamic response

Aim: To create a simple HTTP web server using Node.js to generate a dynamic response

Procedure:

- 1. Install Node Js
- 2. Create the server using http.createServer(function (request, response) {});
- 3. Send the response
- 4. Server will be listening at port 3000
- 5. Run index.js file using below command:
 - a. nodeindex.js

Program:

```
moduleconst http=
require("http")
constserver=http.createServer((req,res) =>{
res.write("This is the response from the server")
    res.end();
})
server.listen((3000), ()=> {
    console.log("ServerisRunning");
})
```

Output:

```
$ node index.js
Server is Running
```

Result: Thus the above program was executed and output was verified successfully.

Task:7	Create a three-tier application using Node.js and MySQL data bas
Date:	

Aim: To create a three-tier application using Node.js and MySQL data base

Procedure:

- 1. Install Node.js
- 2. Include Npm registry
- 3. Use any TextEditor like VSCode or notepad.
- 4. Postman:this will allow to test your API(GET, POST, PUT, DELETE, etc.)

Program:

\$mkdir project && mkdirproject/server && mkdirproject/client && cdserver/ \$touch package.json

Scripts to start application
"name":"server",
"version":"1.0.0","pr
ivate":
true,"scripts":{
"start": "node -r esm
app.js","dev":"nodemonresmapp.js"
},

• Installation:

\$npx install-peerdeps—deveslint-config-airbnb

• BuildServer:

//Import all dependencies & middleware here import express from 'express';

//Init an Express App.This later starts a server and put all dependencies into your project to use constapp =express();
//Use your dependencies here

```
//use all controllers(APIs)here
app.get('/',(req,res) => {
  res.status(200).json({sta
    tus:'success'
  });
});
// Start Anything here
```

```
app.listen(8080,()=>{
 console.log('Example app listening on port 8080!');
});
    • Startserver:
$npmstart
    • CreateRESTfulAPIs
        Import express from'express';
        Const user
        Controller=express.Router();userControlle
        r.get('/', (req,res)=> {
          res.status(200).json({status:'
            success'
          });
        });
        Export tdefault userController;
    • Install & Start
        MongoDBapp.listen(8080,(
        )=> {
          console.log(`Started successfully server at port
          ${port}`);mongoose.connect('mongodb://localhost/test').then
          (()=>\{
           console.log(`Conneted to mongoDB at port27017`);
          });
        });
Output:
UsePOST/methodand enterlocalhost:8080/add-user. This will call the "/add-user" API.
'email': 'example@gmail.com', 'passw
ord':'123456789'
```

Result: Thus the above program was executed and output was verified successfully.

{

}

Task:8	Create a simple single web page chat bot's application using
Date:	Angular for Bike Rental System.

Aim: To create a simple single web page chat bot's application using Angular for Bike Rental System

Procedure:

- 1. Install angular
- 2. This application has only one extra dependency the Dialog Flow JavaScript SDK. It is written in TypeScript, so we can install it to the dev dependencies.
- 3. We need to add the Angular Forms Module to the imports and add the Chat Dialog Component to exports.
- 4. Then import the chat module into the app module
- 5. Now we have to call this app Component where ever we want the functionality to been included. Currently in our application, we used it in index.html

Program:

```
import{NgModule}from'@angular/core';
import{CommonModule}from'@angular/common';impo
rt { FormsModule } from
'@angular/forms';import{ChatService}from
'../chat.service';
import{ChatDialogComponent}from'./chat-dialog/chat-dialog.component';
<b>@NgModule</b>({im
ports: [Common Module,
Forms Module
declarations: [Chat
Dialog Component
],
exports:[Chat Dialog Component],//<--export here
providers:[Chat Service]
})
Export class ChatModule{}
```

Output:

Result: Thus the above program was executed and output was verified successfully.

Task:9	Develop a micro service for finding what people think by asking
Date:	500 people's opinion for any consumer product in Node.js using
Ducci	Seneca Toolkit.

Aim: To develop a micro service for finding what people think by asking 500 people's opinion for any consumer product in Node.js using Seneca Toolkit.

Procedure:

- 1. seneca.add method adds a new action pattern to the Seneca instance
- 2. Pattern property is used to match in any JSON messages that the Seneca instance receives.
- 3. Action function is used to execute when a pattern matches a message.
- 4. To initialize a plugin, you add a special action pattern: init:<plugin-name>

Program:

```
this.add({
    role:
    "movement",cmd:"ra
    wMoves",
  , (msg, reply) => \{var\}
    err=null;
    var rawMoves=[];
    varpos=msg.piece.position;
    switch (msg.piece.piece)
     {case'R':
       rawMoves =
       rankAndFile(pos);break;
    case'B':
       rawMoves =
       diagonal(pos);break;
    case'Q':
       rawMoves=rankAndFile(pos)
          .concat(diagonal(pos));br
       eak;
    case'K':
       rawMoves=rankAndFile(pos,1)
          .concat(diagonal(pos,
       1))break;
    default:
       err = "unhandled " +
       msg.piece;break;
     };
```

```
reply(err,rawMoves);
});
```

```
[{file:'c',rank:'4'},
{file:'d',rank:'5'},
{file:'e',rank:'4'},
{file:'d',rank:'3'},
{file:'b',rank:'4'},
{file:'d',rank:'6'},
```

Result: Thus the above program was executed and output was verified successfully.

Task:10	Develop a simple micro service for E-Payment service in Node.js
Date:	using Seneca toolkit.

Aim: To develop a simple micro service for E-Payment service in Node.js using Seneca toolkit.

Procedure:

- 1. . add method adds a new action pattern to the Seneca instance
- 2. Pattern property is used to match in any JSON messages that the Seneca instance receives.
- 3. Action function is used to execute when a pattern matches a message.
- 4. To initialize a plugin, you add a special action pattern: init:<plugin-name>

Program:

```
Var seneca=require('seneca')();
seneca
 .use('basic')
 .use('entity');
seneca.add({"role": "product", "cmd": "create"}, (args, done) =>
 {var product = seneca.make$("Product");
 product.name
 =args.name;product.description =
 args.description;product.price
 =args.price;product.save$((err,
 savedProduct) =>
 {done(err,savedProduct);
 });
});
// Listen for messages in the specified transport type and
port.seneca.listen({
  "type":"http","p
  ort":8080
});
```

Output:



Result: Thus the above program was executed and output was verified successfully.

HOSPITAL REGISTRATION FORM

Aim:

To implement hospital Management System using PHP and MySQL.

Procedure:

- Environment Setup
 - 1. Install XAMPP Web Server
 - 2. Open the XAMPP Control Panel.
 - 3. Start the Apache server by clicking on the Start button.
 - 4. Start the MySQL by clicking on the Start button.
 - 5. Create all the files needed for login.
 - 6. Create login table in the database using phpMyAdmin in XAMPP.
- Creation of Necessary Files
 - ✓ index.html This file is created for the GUI view of the login page.
 - ✓ Welcome.php this file contains the connection code for database connectivity and inserts form data into the database after submission.

Program:

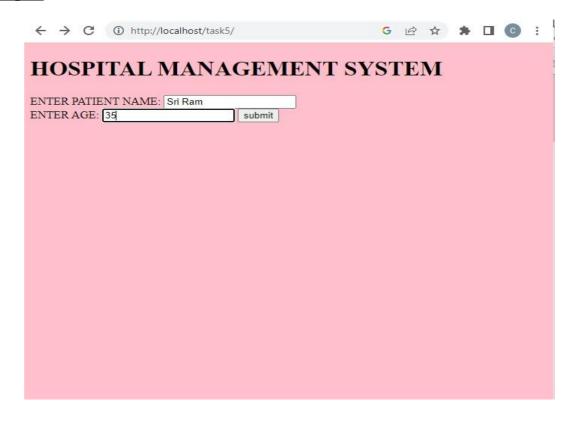
home.html

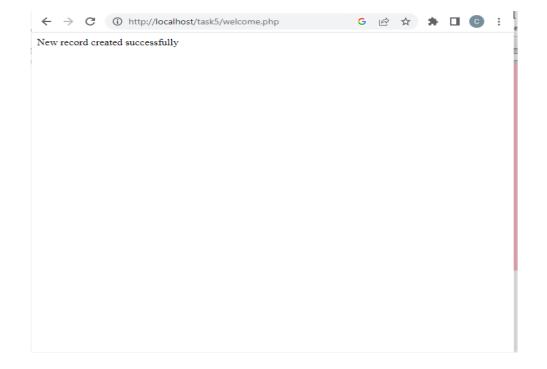
```
<!DOCTYPE html>
<html>
<body BGCOLOR="PINK">
<h1>HOSPITAL MANAGEMENT SYSTEM </h1>
<form action="welcome.php" method="POST">
ENTER PATIENT NAME: <input type="text" name="name" ><br>
ENTER AGE: <input type="text" name="age" >
<input type="submit" value="submit">
</form>
</body>
</html>
Welcome.php
<?php
$servername = "localhost";
$username = "root";
$password = "";
$dbname = "sample";
// Create connection
$conn = new mysqli($servername, $username, $password, $dbname);
// Check connection
```

```
if ($conn->connect_error)
{
    die("Connection failed: " . $conn->connect_error);
}
$name=$_POST["name"];
$age=$_POST["age"];

$sql = "INSERT INTO patient (name, age) VALUES ('$name', '$age')";

if ($conn->query($sql) === TRUE)
{
    echo "New record created successfully";
}
else
{
    echo "Error: " . $sql . "<br/>br>" . $conn->error;
}
$conn->close();
?>
```





Result:

Usecase:

LIBRARY MANAGEMENT SYSTEM

Aim:

To implement library management system using PHP and MySQL.

Procedure:

- Environment Setup
 - ✓ Install XAMPP Web Server
 - ✓ Open the XAMPP Control Panel.
 - ✓ Start the Apache server by clicking on the Start button.
 - ✓ Start the MySQL by clicking on the Start button.
 - ✓ Create all the files needed for login.
 - ✓ Create login table in the database using phpMyAdmin in XAMPP.
- Creation of Necessary Files
 - ✓ index.html This file is created for the GUI view of the login page.
 - ✓ Welcome.php this file contains the connection code for database connectivity and inserts form data into the database after submission.

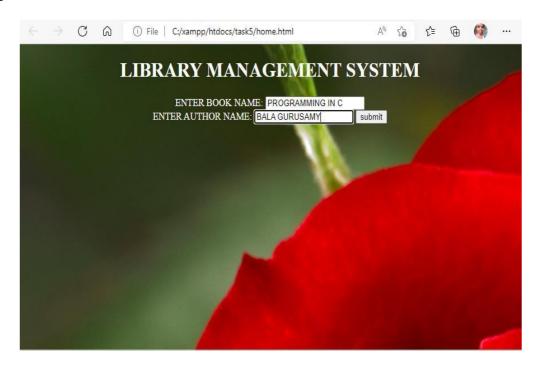
Home.html

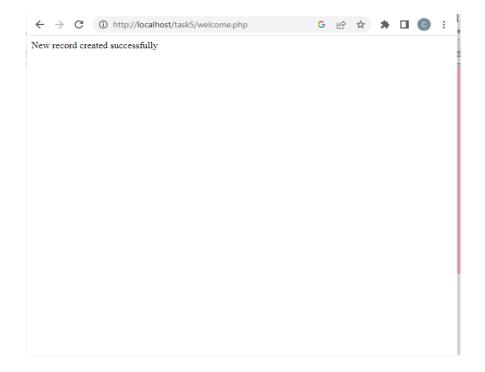
```
<!DOCTYPE html>
<html>
<body background="C:\Users\NIVAASHINI\Desktop\rose.jpg">
>
<center>
<h1 style="color:white">LIBRARY MANAGEMENT SYSTEM </h1>
<form action="welcome.php" method="POST">
<label style="color:white">ENTER BOOK NAME:</label> <input type="text"</pre>
name="bname" ><br>
<label style="color:white"> ENTER AUTHOR NAME: </label><input type="text"</pre>
name="aname" >
<input type="submit" value="submit">
</center>
</form>
</body>
</html>
Welcome.php
<?php
$servername = "localhost";
$username = "root";
$password = "";
$dbname = "sample";
// Create connection
$conn = new mysqli($servername, $username, $password, $dbname);
```

```
// Check connection
if ($conn->connect_error)
{
    die("Connection failed: " . $conn->connect_error);
}
$bname=$_POST["name"];
$aname=$_POST["age"];

$sql = "INSERT INTO book (bookname, authorname) VALUES ('$bname', '$aname')";

if ($conn->query($sql) === TRUE)
{
        echo "New record created successfully";
}
else
{
        echo "Error: " . $sql . "<br/>br>" . $conn->error;
}
$conn->close();
}
```





Result:

Usecase:

RAILWAY TICKET MANAGEMENT SYSTEM LOGIN PAGE

Aim:

To implement railway ticket management system using PHP and MySQL.

Procedure:

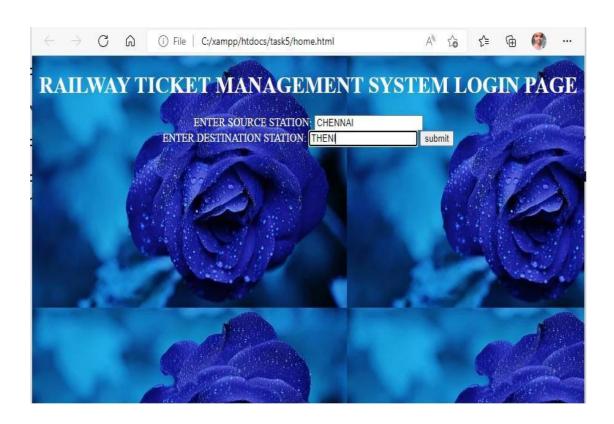
- Environment Setup
 - ✓ Install XAMPP Web Server
 - ✓ Open the XAMPP Control Panel.
 - ✓ Start the Apache server by clicking on the Start button.
 - ✓ Start the MySQL by clicking on the Start button.
 - ✓ Create all the files needed for login.
 - ✓ Create login table in the database using phpMyAdmin in XAMPP.
- Creation of Necessary Files
 - ✓ index.html This file is created for the GUI view of the login page.
 - ✓ Welcome.php this file contains the connection code for database connectivity and inserts form data into the database after submission.

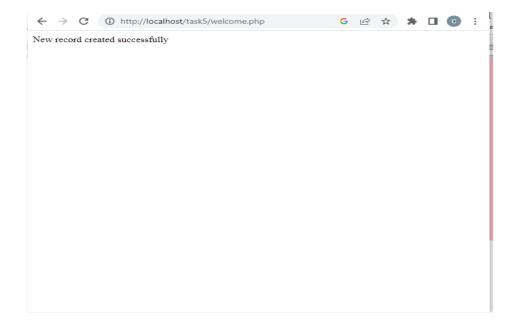
home.html

```
<!DOCTYPE html>
<html>
<body background="C:\Users\NIVAASHINI\Desktop\rose1.jpg">
>
<center>
<h1 style="color:white">RAILWAY TICKET MANAGEMENT SYSTEM LOGIN PAGE
</h1>
<form action="welcome.php" method="POST">
<label style="color:white">ENTER SOURCE STATION:</label> <input type="text"</pre>
name="source" ><br>
<label style="color:white"> ENTER DESTINATION STATION: </label><input type="text"</pre>
name="destination" >
<input type="submit" value="submit">
</center>
</form>
</body>
</html>
Welcome.php
```

```
<?php
$servername = "localhost";</pre>
```

```
$username = "root";
$password = "";
$dbname = "sample";
// Create connection
$conn = new mysqli($servername, $username, $password, $dbname);
// Check connection
if ($conn->connect_error)
 die("Connection failed: " . $conn->connect_error);
$source=$_POST["source"];
$destination=$_POST["destination"];
$sql = "INSERT INTO train (source, destination) VALUES ('$source', '$destination')";
if ($conn->query($sql) === TRUE)
       echo "New record created successfully";
else
       echo "Error: " . $sql . "<br>" . $conn->error;
$conn->close();
?>
```





Result: