Hospital Management Using PHP and MySQL

Aim: To build an Hospital Management website using PHP,HTML,CSS, JavaScript.

TEAM MEMBERS

Batch: B

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Introduction:
The purpose of an **hospital management system** is to operate a **hospital** with efficiency.
Our project Hospital Management system includes registration of patients, storing their
details into the system, and also booking their appointments with doctors.
Our software has the facility to give a unique id for every patient and stores the details
of every patient and the staff automatically. System can be entered using a username and
password. It is accessible by an receptionist. Only they can add data into the database. The data
can be retrieved easily. The interface is very user-friendly.

Working of the project:

The System greatly lowers manual effort and allows for a seamless flow of hospital tasks by eliminating the possibility of errors when doing its activities.

Modules:

• Hospital Introductory Page.
• Receptionist Login
• Insertion, deletion of patient details and updates
  And insertion, deletion of doctor details and updates.
• View and Check Information.
• Prescription details (insert and view).
  • MedRecs- is a view which contains attributes from patient (pid,fname, lname) and prescription(medicine).

Documentation Diagrams: ER diagram

Programming Languages: PHP,HTML,CSS,BootStrap, JavaScript

Language Used	PHP8.1
Database	MySQL 8.0
User Interface Design	HTML, CSS, JavaScript, BootStrap
Web Browser	Google Chrome
Software	XAMPP

- User(Receptionist) can sign up using **id , username , phone, email, userType and password**
- Receptionist can search for patient using **pid**
- Receptionist can search for doctor using **did**
- Receptionist can search for prescription using **pres_ID**
- Receptionist can add student details, update and delete patient, doctor details.

ER Diagram for Hospital Management System.

- User is identified by a **id, username, phone, email, userType and password** .
- Categories are identified by **cat_id, category_name**.
- Patients are identified by **pid,fname, lname,gender,phone,email.**
- Doctors are identified by **did, name,email,specialization,contact.**
- Prescriptions are identified by pres_ID,**pid,did,disease/allergy,medicine,dosage.**
- MedRecs contains **pid, fname,lname,medicine**
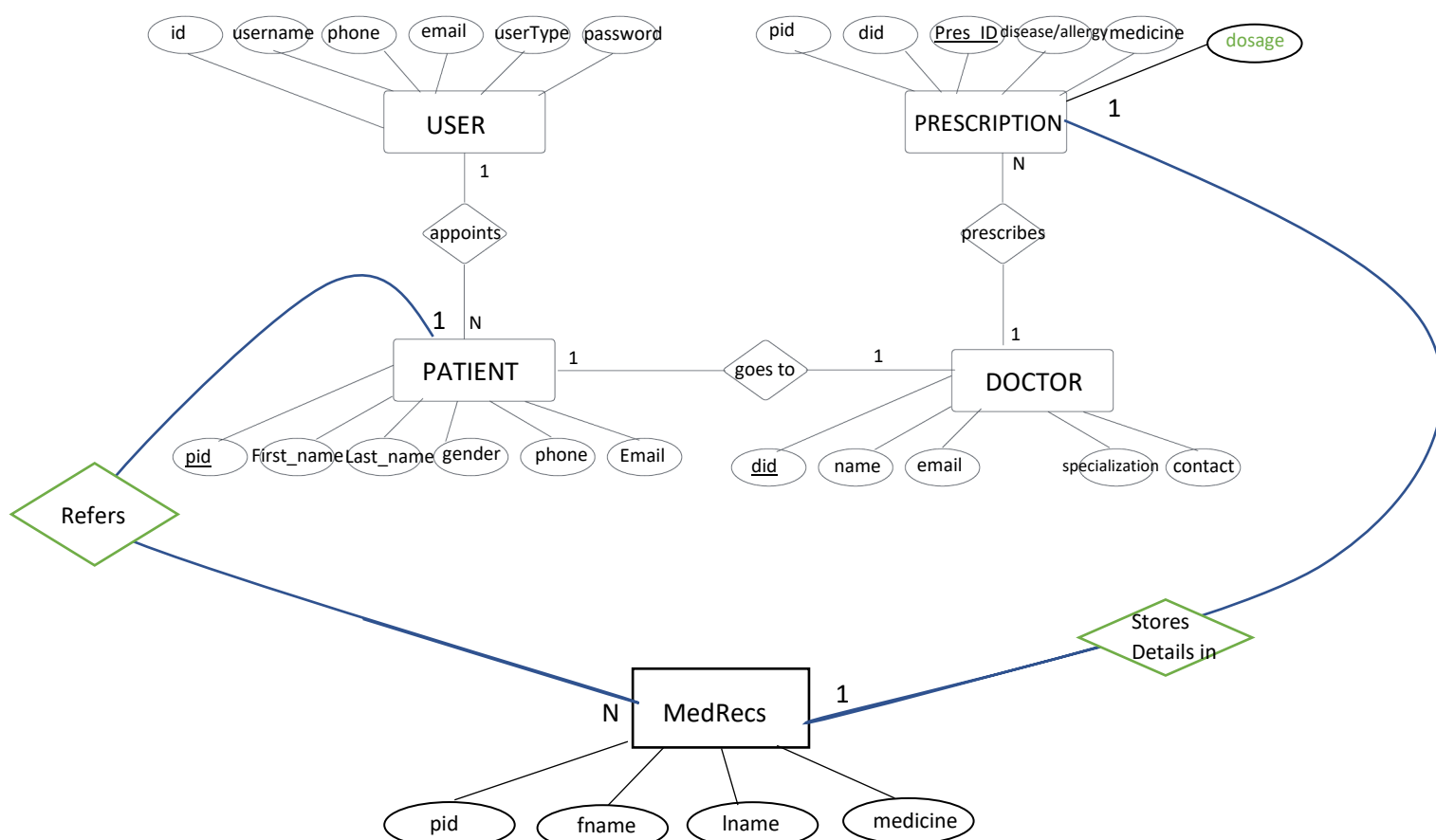
Entities and their **Attributes** are :

- **User Entity** : Attributes of User Entity are
  pres_ID,pid,did,disease/allergy,medicine,dosage
- **Patient Entity :** Attributes of student Entity are **pid,first_name,
  last_name,gender,phone,email.**
- pid is Primary Key for student Entity.
- **Doctor Entity :** Attributes of Doctor Entity are **did,
  name,email,specialization,contact.** Primary Key for Doctor Entity is did.
- **Prescription Entity :** Attributes of **Prescription** Entity are
  pres_ID,**pid,did,disease/allergy,medicine,dosage.**
- Pres_id is Primary Key for **Prescription** Entity.
- MedRecs Entity: Attributes of **MedRecs** Entity are **pid,fname,lname,medicine.**

Relationships are:

- **user appoints patients => 1 : N**
  One user can appoint many patients ,so the relationship between user and
  patient is one to many relationship.
- **Patient refers to MedRecs (medical records) => 1: N**
  A patient can have more than 1 medical records.

- **Patient goes to Doctor => 1 : 1**
  One doctor can treat one patient at a time, so the relationship between doctor
  and patient is one to one relationship.
- **Prescription stores details in MedRecs => 1:1**
  A prescription record can store its information in one medical record only.

Doctor prescribes Precription => 1 : N
One doctor can prescribe many prescriptions for a single patient, thus 1:N
relationship exists between them.

Schema Diagram

User Table

ID	USERNAME	PHONE	EMAIL	USERTYPE	PASSWORD

Doctor Table

DID	DNAME	EMAIL	SPECIALIZATION	CONTACT

Patient Table

PID	FNAME	LNAME	GENDER	PHONE	EMAIL

Prescription Table

PID	DID	PRES_ID	DISEASE	MEDICINE	DOSAGE

MedRecs Table

PID	FNAME	LNAME	MEDICINE

Code

Insert operation

```php
<?php
session_start();
// if(!isset($_SESSION['username'])){
//    header("location:login.php");
// }
$host="localhost";
$user="root";
$password="";
$db="hospitalproject";
$data=mysqli_connect($host,$user,$password,$db);

if(isset($_POST['add_patient'])){
   $fname=$_POST['fname'];
   $lname=$_POST['lname'];
   $gender=$_POST['gender'];
   $phone=$_POST['phone'];
   $email=$_POST['email'];

   $check="SELECT * FROM patient WHERE fname='$fname' AND lname='$lname'";
   $check_user=mysqli_query($data,$check);

   $row_count=mysqli_num_rows($check_user);

   if($row_count==1){
     echo "<script type='text/javascript'>
     alert('Already Exists..try another');
     </script>";
   }
   else
   {

     $sql="INSERT INTO patient(fname,lname,gender,phone,email) VALUES('$fname','$lname','$gender','$phone','$email')";
     $result=mysqli_query($data,$sql);

     if($result){
       echo "<script type='text/javascript'>
       alert('Data Upload Success');
       </script>";
     }else
     {
       echo "upload failed";
     }
   }
}
?>

<!DOCTYPE html>
<html lang="en">
<head>
   <meta charset="UTF-8">
   <meta http-equiv="X-UA-Compatible" content="IE=edge">
```

```html
    <meta name="viewport"
content="width=device-width, initial-scale=1.0">
    <title>Receptionist Dashboard</title>
    <link rel="stylesheet" href="add_patient.css">
    <!-- Latest compiled and minified CSS -->
<link rel="stylesheet"
href="https://cdn.jsdelivr.net/npm/bootstrap@3.3
.7/dist/css/bootstrap.min.css" integrity="sha384-
BVYiiSIFeK1dGmJRAkycuHAHRg32OmUcww7on3R
Ydg4Va+PmSTsz/K68vbdEjh4u"
crossorigin="anonymous">

<!-- Optional theme -->
<link rel="stylesheet"
href="https://cdn.jsdelivr.net/npm/bootstrap@3.3
.7/dist/css/bootstrap-theme.min.css"
integrity="sha384-
rHyoN1iRsVXV4nD0JutlnGaslCJuC7uwjduW9SVrLv
RYooPp2bWYgmgJQIXwl/Sp"
crossorigin="anonymous">

<!-- Latest compiled and minified JavaScript -->
<script
src="https://cdn.jsdelivr.net/npm/bootstrap@3.3.
7/dist/js/bootstrap.min.js" integrity="sha384-
Tc5IQib027qvyjSMfHjOMaLkfuWVxZxUPnCJA7l2m
CWNIpG9mGCD8wGNIcPD7Txa"
crossorigin="anonymous"></script>
</head>
<body>
    <header class="header">
        <a href="">Receptionist Dashboard</a>


        <div class="logout">
            <a class="btn btn-primary"
href="logout.php">Logout</a>
        </div>


        <style type="text/css">
            label{
                display:inline-block;
                text-align:right;
                width: 100px;
                padding-top: 10px;
                padding-bottom: 10px;

            }

            .div_deg{
                background-color:skyblue;
                width:400px;
                padding-top:70px;
                padding-bottom:70px;
            }
        </style>

    </header>

    <aside>
        <ul>
            <li>
                <a class="btn btn-primary"
href="add_patient.php">Add Patient</a>
            </li>
            <li>
                <a class="btn btn-primary"
href="display_patient.php">View Patient</a>
            </li>


            <li>
                <a class="btn btn-primary"
href="add_doctor.php">Add Doctor</a>
            </li>
            <li>
                <a class="btn btn-primary"
href="display_doctor.php">View Doctor</a>
            </li>
            <li>
                <a class="btn btn-primary"
href="searchupdate.php">Search Patient</a>
            </li>
            <li>
                <a class="btn btn-primary"
href="prescription.php">Prescription Details</a>
            </li>

        </ul>
    </aside>

    <!-- only this part changes -->
    <div>
        <center>
        <div>
            <h1>Add Patient</h1>
        </div>

        <div class="div_deg">
            <form action="#" method="POST">
                <div>
                    <label for="">First Name</label>
                    <input type="text" name="fname">
                </div>
                <div>
                    <label for="">Last Name</label>
                    <input type="text" name="lname">
                </div>
                <div>
                    <label for="">Gender</label>
                    <input type="text" name="gender">
```

```html
          </div>
          <div>
            <label for="">Phone Number</label>
            <input type="number" name="phone">
          </div>
          <div>
            <label for="">Email</label>
            <input type="email" name="email">
          </div>
          <div>
```

```html
                <input type="submit" class="btn btn-
primary"name="add_patient" value="Add
Patient">
            </div>

          </form>
        </div>
      </center>

    </div>
  </body>
</html>
```

Search, update, delete operation

```php
<!--THIS CODE SEARCHES PATIENT DETAILS AND
UPDATE/DELETES THEM ON REQUEST-->
<?php
error_reporting(0);
session_start();
$connection=mysqli_connect("localhost","root","");
$db=mysqli_select_db($connection,'hospitalproject');

if(isset($_POST['search'])){
  $id=$_POST['id'];
  $query="SELECT * FROM patient WHERE pid='$id'";
  $query_run=mysqli_query($connection,$query);
}
?>
```

```html
<!DOCTYPE html>
<html lang="en">
<head>
  <title>Receptionist Dashboard</title>
  <link rel="stylesheet" href="display_patient.css">
  <!-- Latest compiled and minified CSS -->
  <link rel="stylesheet"
href="https://cdn.jsdelivr.net/npm/bootstrap@3.3.7/dist/css/b
ootstrap.min.css" integrity="sha384-
BVYiiSIFeK1dGmJRAkycuHAHRg32OmUcww7on3RYdg4Va+PmS
Tsz/K68vbdEjh4u" crossorigin="anonymous">
  <!-- Optional theme -->
  <link rel="stylesheet"
href="https://cdn.jsdelivr.net/npm/bootstrap@3.3.7/dist/css/b
ootstrap-theme.min.css" integrity="sha384-
rHyoN1iRsVXV4nD0JutlnGaslCJuC7uwjduW9SVrLvRYooPp2bWY
gmgJQIXwl/Sp" crossorigin="anonymous">
  <!-- Latest compiled and minified JavaScript -->
  <script
src="https://cdn.jsdelivr.net/npm/bootstrap@3.3.7/dist/js/boo
tstrap.min.js" integrity="sha384-
Tc5IQib027qvyjSMfHjOMaLkfuWVxZxUPnCJA7l2mCWNIpG9mG
CD8wGNIcPD7Txa" crossorigin="anonymous"></script>
</head>
<body>
  <header class="header">
    <a href="">Receptionist Dashboard</a>
    <div class="logout">
        <a class="btn btn-primary"
href="logout.php">Logout</a>
    </div>


    <style type="text/css">
      .table_th{
        padding-left 20px;
        padding: 20px;
```

```css
        font-size: 15px;
      }
      body div{
        padding-left:20px;
      }
    </style>
  </header>
  <aside>
    <ul>
      <li>
        <a class="btn btn-primary"
href="add_patient.php">Add Patient</a>
      </li>
      <li>
        <a class="btn btn-primary"
href="display_patient.php">View Patient</a>
      </li>
      <li>
        <a class="btn btn-primary"
href="add_doctor.php">Add Doctor</a>
      </li>
      <li>
        <a class="btn btn-primary"
href="display_doctor.php">View Doctor</a>
      </li>

      <li>
        <a class="btn btn-primary"
href="searchupdate.php">Search Patient</a>
      </li>
      <li>
        <a class="btn btn-primary"
href="prescription.php">Prescription Details</a>
      </li>
    </ul>
  </aside>
  <!-- only this part changes -->
  <div>
    <center>
    <div>
      <h1>Patient Table</h1>
      <form action="" method="POST">
      <input type="text" name="id" placeholder="Enter
Patient ID">
      <input type="submit" name="search" value="search by
ID">
      </form>
      <?php
      if($_SESSION['message']){
        echo $_SESSION['message'];
      }
      unset($_SESSION['message']);
```

```php
            ?>

        </div>
        <div class="content">
        <table border="1px">
          <tr>
            <th class="table_th">pid</th>
            <th class="table_th">First Name</th>
            <th class="table_th">Last Name</th>
            <th class="table_th">Gender</th>
            <th class="table_th">Phone Number</th>
            <th class="table_th">Email</th>
            <th class="table_th">Delete</th>
            <th class="table_th">Update</th>
          </tr>
          <?php
          while($row=mysqli_fetch_array($query_run)){
            ?>
          <tr>
            <td class="table_th"> <?php echo $row['pid']; ?></td>
            <td class="table_th"> <?php echo $row['fname']; ?></td>
            <td class="table_th"> <?php echo $row['lname']; ?></td>
            <td class="table_th"> <?php echo $row['gender']; ?></td>
            <td class="table_th"> <?php echo $row['phone']; ?></td>
            <td class="table_th"> <?php echo $row['email']; ?></td>
            <td class="table_th">
              <?php
              echo "<a onClick=\"javascript:return confirm('Are you sure to delete?');\"
              class='btn btn-danger'
              href='delete.php?patient_id={$row['pid']}'>Delete</a>";
              ?>
            </td>
            <td class="table_th">
              <?php
              echo "<a onClick=\"javascript:return confirm('Are you sure to update?');\"
              class='btn btn-primary'href='update_patient.php?patient_id={$row['pid']}'>Update</a>";
              ?>
            </td>
          </tr>
          <?php
          }
          ?>

        </table>

        </div>
      </center>
    </div>
</body>
</html>
```

Display Operation

```php
<!-- using this page ..we are able to delete,update -->
<!-- to update we have update_patient.php -->
<?php
error_reporting(0);
session_start();
// if(!isset($_SESSION['username'])){
//     header("location:login.php");
// }
$host="localhost";
$user="root";
$password="";
$db="hospitalproject";
$data=mysqli_connect($host,$user,$password,$db);

$sql="SELECT * FROM doctor";
$result=mysqli_query($data,$sql);

?>


<!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-scale=1.0">
    <title>Receptionist Dashboard</title>
    <link rel="stylesheet" href="display_patient.css">
    <!-- Latest compiled and minified CSS -->
    <link rel="stylesheet" href="https://cdn.jsdelivr.net/npm/bootstrap@3.3.7/dist/css/bootstrap.min.css" integrity="sha384-BVYiiSIFeK1dGmJRAkycuHAHRg32OmUcww7on3RYdg4Va+PmSTsz/K68vbdEjh4u" crossorigin="anonymous">


    <!-- Optional theme -->
    <link rel="stylesheet" href="https://cdn.jsdelivr.net/npm/bootstrap@3.3.7/dist/css/bootstrap-theme.min.css" integrity="sha384-rHyoN1iRsVXV4nD0JutlnGaslCJuC7uwjduW9SVrLvRYooPp2bWYgmgJQIXwl/Sp" crossorigin="anonymous">
```

```html
    <!-- Latest compiled and minified JavaScript
-->
    <script
src="https://cdn.jsdelivr.net/npm/bootstrap
@3.3.7/dist/js/bootstrap.min.js"
integrity="sha384-
Tc5IQib027qvyjSMfHjOMaLkfuWVxZxUPnCJA7
l2mCWNIpG9mGCD8wGNIcPD7Txa"
crossorigin="anonymous"></script>
</head>
<body>
    <header class="header">
        <a href="">Receptionist Dashboard</a>


        <div class="logout">
            <a class="btn btn-primary"
href="logout.php">Logout</a>
        </div>


        <style type="text/css">
            .table_th{
                padding-left 20px;
                padding: 20px;
                font-size: 15px;
            }
            body div{
                padding-left:20px;
            }
        </style>
    </header>


    <aside>
        <ul>
            <li>
                <a class="btn btn-primary"
href="add_patient.php">Add Patient</a>
            </li>
            <li>
                <a class="btn btn-primary"
href="display_patient.php">View Patient</a>
            </li>

            <li>
                <a class="btn btn-primary"
href="add_doctor.php">Add Doctor</a>
            </li>
            <li>
                <a class="btn btn-primary"
href="display_doctor.php">View Doctor</a>
            </li>
            <li>
                <a class="btn btn-primary"
href="searchupdate.php">Search Patient</a>
            </li>
            <li>
                <a class="btn btn-primary"
href="prescription.php">Prescription
Details</a>
            </li>

        </ul>
    </aside>

    <!-- only this part changes -->
    <div>
        <center>
        <div>
            <h1>Doctor Table</h1>
            <?php
            if($_SESSION['message']){
                echo $_SESSION['message'];
            }
            unset($_SESSION['message']);
            ?>

        </div>

        <div class="content">

        <table border="1px">
            <tr>
                <th class="table_th">did</th>
                <th class="table_th">Name</th>
                <th class="table_th">Email</th>
                <th
class="table_th">Specialization</th>
                <th class="table_th">Contact</th>
            </tr>


            <?php
            while($info=$result->fetch_assoc()){
            ?>

            <tr>
                <td class="table_th"><?php echo
"{$info['did']}";?></td>
```

```php
        <td class="table_th"><?php echo
"{$info['dname']}";?></td>
        <td class="table_th"> <?php echo
"{$info['email']}";?></td>
        <td class="table_th"> <?php echo
"{$info['specialization']}";?></td>
        <td class="table_th"> <?php echo
"{$info['contact']}";?></td>
        <td class="table_th">
          <?php
            echo "<a
onClick=\"javascript:return confirm('Are you
sure to delete?');\"
            class='btn btn-danger'
href='delete.php?doctor_id={$info['did']}'>Del
ete</a>";
          ?>
        </td>
        <td class="table_th">
          <?php
            echo "<a
onClick=\"javascript:return confirm('Are you
sure to update?');\"
            class='btn btn-
primary'href='update_doctor.php?doctor_id=
{$info['did']}'>Update</a>";
          ?>
        </td>
      </tr>
      <?php
      }
      ?>

    </table>

  </div>
  </center>
  </div>
</body>
</html>
```

Home Page
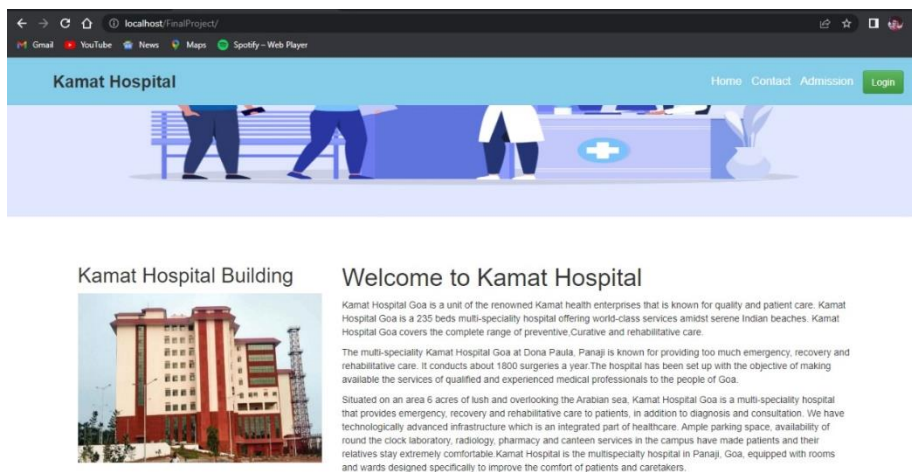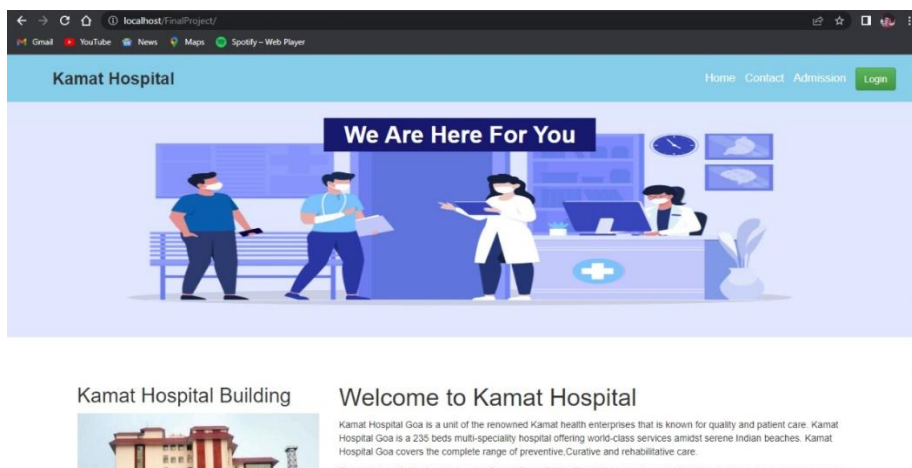
Login Page
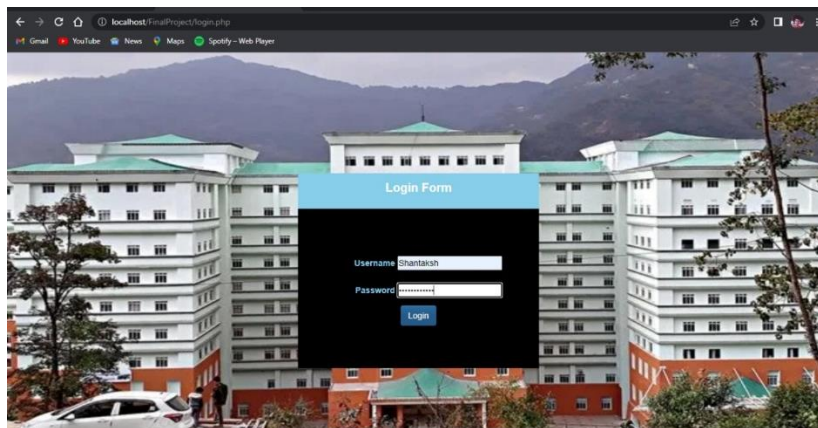
Receptionist's Dashboard
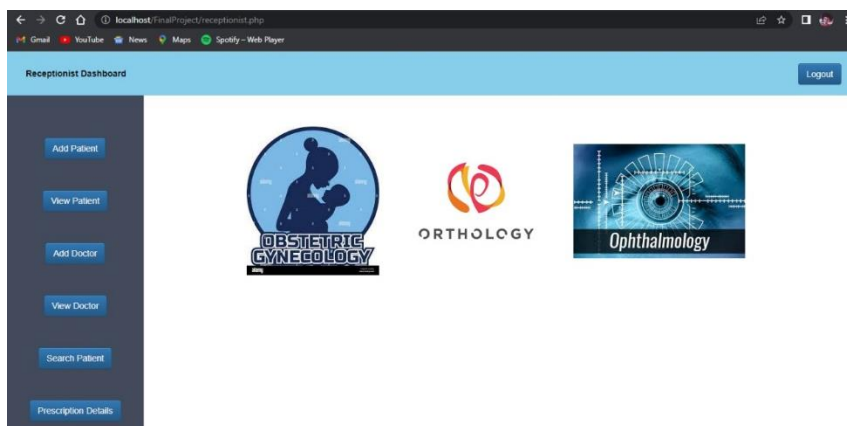
View Patient
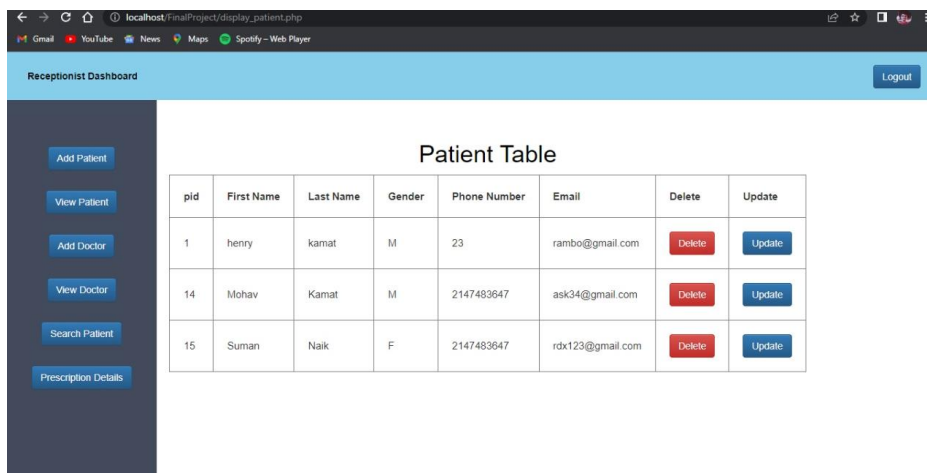
On clicking 'add patient' the following details will be added to the patient table

Dialog Box appears to show successful entry of a patient
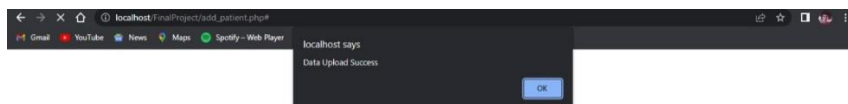
New record is added successfully

Patient Table

pid	First Name	Last Name	Gender	Phone Number	Email	Delete	Update
1	henry	kamat	M	23	rambo@gmail.com	Delete	Update
14	Mohav	Kamat	M	2147483647	ask34@gmail.com	Delete	Update
15	Suman	Naik	F	2147483647	rdx123@gmail.com	Delete	Update
16	Ramchandra	Dessai	M	2147483647	wer@gmail.com	Delete	Update

Similar functionalities are available for doctor table

Doctor Table

did	Name	Email	Specialization	Contact		
1	Kalpana Chawla	rakesh12@gmail.com	Cardiology	9822012345	Delete	Update

On clicking update button for pid=16, we can update the details

Update Patient

First Name Laxman

Last Name Dessai

Gender M

Phone Number 2147483647

Email wer@gmail.com

Update

Updated table

pid	First Name	Last Name	Gender	Phone Number	Email	Delete	Update
1	henry	kamat	M	23	rambo@gmail.com	Delete	Update
14	Mohav	Kamat	M	2147483647	ask34@gmail.com	Delete	Update
15	Suman	Naik	F	2147483647	rdx123@gmail.com	Delete	Update
16	Laxman	Dessai	M	2147483647	wer@gmail.com	Delete	Update

Patient Table

Search patient

Receptionist Dashboard   Logout

Patient Table

16   Search by ID

pid	First Name	Last Name	Gender	Phone Number	Email	Delete	Update

Deletion operation on patient table

(Pid=16 is deleted)

Prescription Page

After pressing 'ADD DETAILS' , MedRecs table is displayed.

Tables in the database:

User table

Patient table

```
SELECT * FROM `patient`
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

☐ Show all | Number of rows: 25 ▾   Filter rows: Search this table   Sort by key: None ▾

Extra options

			pid	fname	lname	gender	phone	email
☐	✎ Edit	⬛ Copy ⊘ Delete	1	henry	kamat	M	982234123	rambo@gmail.com
☐	✎ Edit	⬛ Copy ⊘ Delete	14	Mohav	Kamat	M	2147483647	ask34@gmail.com
☐	✎ Edit	⬛ Copy ⊘ Delete	15	Suman	Naik	F	2147483647	rdx123@gmail.com

↑ ☐ Check all   With selected: ✎ Edit   ⬛ Copy   ⊘ Delete   🖳 Export

Doctor table

```
SELECT * FROM `doctor`
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

☐ Show all | Number of rows: 25 ▾   Filter rows: Search this table

Extra options

			did	dname	email	specialization	contact
☐	✎ Edit	⬛ Copy ⊘ Delete	1	Kalpana Chawla	rakesh12@gmail.com	Cardiology	9822012345

↑ ☐ Check all   With selected: ✎ Edit   ⬛ Copy   ⊘ Delete   🖳 Export

Prescription table

```
SELECT * FROM `prescription`
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

☐ Show all | Number of rows: 25 ▾   Filter rows: Search this table

Extra options

pres_id	did	date	disease	medicine	dosage	pid
1	1	2022-12-20	fever	meftal	twice a day	1
2	1	2022-12-20	malaria	paracetamol	twice a day	2
3	1	2022-12-19	malaria	paracetamol	as per direction of doctor	3

MedRecs table (it's a view created by the command ' CREATE VIEW *MedRecs* AS
SELECT *pid, fname, lname*, *medicine* FROM *patient, prescription where patient.pid = prescription.pid;*)

```
SELECT * FROM `medrecs`
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

☐ Show all | Number of rows: 25 ▾   Filter rows: Search this table

Extra options

			pid	fname	lname	medicine
☐	✎ Edit	⬛ Copy ⊘ Delete	1	henry	kamat	meftal

Conclusion: The Hospital Management System was successfully made using MySQL and PHP.