Micro Project Report

On

Dr.Network

Diploma Computer Engineering

Semester 4

(Introduction to Web Development – 4340704)

Group Members		
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Introduction to Project

- In the rapidly evolving landscape of healthcare, the integration of technology has become indispensable for streamlining processes, improving patient care, and enhancing overall efficiency within medical practices. The advent of digital platforms has revolutionized the way healthcare professionals interact with patients and manage various aspects of their practice. In line with this progression, the development of a comprehensive Doctor Portal using PHP offers a transformative solution for modern healthcare management.
- The Doctor Portal serves as a centralized platform tailored specifically to meet the needs of medical practitioners, facilitating seamless communication, efficient scheduling, and effective management of patient information. By harnessing the power of PHP, a versatile and widely-used scripting language for web development, this project aims to provide a robust and scalable solution that empowers doctors to optimize their workflow and enhance the quality of care they deliver.
- This project encompasses a diverse range of features and functionalities designed to address key pain points encountered by doctors in their daily practice. From user authentication and profile management to appointment scheduling, prescription management, and telemedicine integration, the Doctor Portal offers a comprehensive suite of tools to streamline essential tasks and enhance the doctor-patient relationship.
- In addition to enhancing operational efficiency, the Doctor Portal fosters collaboration among healthcare professionals, enabling seamless communication and knowledge sharing. Through features such as messaging systems, collaboration tools, and continuing medical education resources, doctors can collaborate effectively, stay updated on the latest medical advancements, and continually improve their clinical practice.
- Overall, the Doctor Portal represents a paradigm shift in healthcare management, leveraging technology to empower doctors, optimize patient care, and elevate the standard of healthcare delivery. Through continuous refinement and innovation, this project aims to set new benchmarks in medical practice management and contribute to the advancement of the healthcare industry.

Functional Requirement

- Develop a secure login system
- Management of profiles
- Request appointment
- Accept appointment
- Send prescriptions
- Perform chatting
- Make payment
- Send bills
- Collect feedbacks
- Give reviews
- Continuing medical education

Applications

- **Hospital Management Systems:-** The Doctor Portal can serve as a crucial component of hospital management systems, facilitating efficient communication between doctors and patients, streamlining appointment scheduling, and centralizing patient records management.
- **Clinic Management Solutions:-** For smaller healthcare facilities such as clinics and outpatient centers, the Doctor Portal offers a cost-effective solution for managing appointments, prescriptions, and patient records, enhancing operational efficiency and improving the overall patient experience.
- **Telemedicine Platforms:**- With the integration of telemedicine features, the Doctor Portal can be deployed as a standalone telemedicine platform, enabling remote consultations between doctors and patients, especially beneficial for patients in rural or underserved areas.
- **Private Practice Management Tools:**- Independent practitioners and specialists can leverage the Doctor Portal as a comprehensive practice management tool, empowering them to streamline administrative tasks, communicate effectively with patients, and deliver personalized care.
- **Healthcare Network Integration:**- Integrated within larger healthcare networks, the Doctor Portal facilitates seamless collaboration and information sharing among multiple healthcare facilities and practitioners, promoting continuity of care and improving patient outcomes.
- **Medical Education and Training Platform:**- Beyond clinical practice, the Doctor Portal can be repurposed as a medical education and training platform, providing access to educational resources, online courses, and collaborative learning environments for medical professionals.
- **Research and Clinical Trials Management:**- Research institutions and organizations conducting clinical trials can utilize the Doctor Portal to manage participant recruitment, track medical data, and facilitate communication between researchers, clinicians, and participants involved in studies.
- **Healthcare Startup Solutions:**- Startups in the healthcare technology sector can leverage the Doctor Portal as a foundation for developing innovative solutions, such as AI-driven diagnostic tools, remote monitoring devices, or personalized health management apps, integrated seamlessly within the existing healthcare infrastructure.

Code

```php
<?php
session_start();
$conn = mysqli_connect("localhost", "root", 12345, "healthcare");
if (mysqli_connect_errno()) {
    die("Connection failed:". mysqli_connect_error());
}
if($_SERVER["REQUEST_METHOD"] == "POST"){
    $id = $_POST["user_id"];
    $name = $_POST["username"];
    $password = $_POST["password"];
    $email = $_POST["email"];
    $user_type = $_POST["user_type"];
    $sql = "select * from users where user_id = '$id'";
    $result = mysqli_query($conn, $sql);
    if (mysqli_num_rows($result) > 0){
        switch($user_type){
            case "doctor":
                $_SESSION["user_id"] = $id;
                $_SESSION["name"] = $name;
                header("Location: Doctor_page.php");
                break;
            case "patient":
                $_SESSION["user_id"] = $id;
                $_SESSION["name"] = $name;
                header("Location: Patient_page.php");
                break;
            default:
                header("Location: index.html");
        }
```

```php
    $options = new Options();
    $options->set("isHtml5ParserEnabled", "true");
    $dompdf = new Dompdf($options);
    $dompdf->loadHtml($html_content);
    $dompdf->setPaper('A4', 'portrait');
    $dompdf->render();
    $file_path = "prescription_$prescription_id.pdf";
    $output = $dompdf->output();
    file_put_contents($file_path, $output);
    $mail = new PHPMailer(true);
    try {
        $mail->isSMTP();
        $mail->Host       = 'smtp.gmail.com';
        $mail->SMTPAuth   = true;
        $mail->Username   = 'adityapithva36@gmail.com';
        $mail->Password   = 'zevvggicpqnpvzno';
        $mail->SMTPSecure = 'tls';
        $mail->Port       = 587;
        $mail->setFrom('adityapithva36@gmail.com', 'Aditya Pithva');
        $mail->addAddress($email);
        $mail->addAttachment($file_path, "Prescription_Details.pdf");
        $mail->isHTML(true);
        $mail->Subject = 'Prescription Details';
        $mail->Body    = "Hello, $name .Please find attached prescription details.";
        $mail->send();
        echo 'Email sent successfully';
        unlink($file);
    } catch (Exception $e) {
        echo "Email sending failed: {$mail->ErrorInfo}";
```

```php
<?php
session_start();
$conn = new mysqli("localhost", "root", 12345, "healthcare");
if (mysqli_connect_errno()) {
    die("Connection failed" . mysqli_connect_error());
}
if ($_SERVER["REQUEST_METHOD"] == "POST") {
    $doctor_id = $_POST["doctor_id"];
    $patient_id = $_POST["patient_id"];
    $invoice_details = $_POST["invoice_details"];
    $amount = $_POST["amount"];
    $status = "pending";
    $sql = "insert into billing (doctor_id,patient_id,invoice_details,amount,status) values
    ('$doctor_id','$patient_id','$invoice_details','$amount','$status')";
    $result = mysqli_query($conn, $sql);
}
$id = $_SESSION["user_id"];
$query = "select * from billing where doctor_id in (select doctor_id from doctor where user_id = '$id')
";
$result = mysqli_query($conn, $query);
?>
<!DOCTYPE html>
<html lang="en">

<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Billing and Invoice</title>
    <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.2/dist/css/bootstrap.min.css"
```

```php
<?php
session_start();
$conn = new mysqli("localhost","root",12345,"healthcare");
$u_id = $_SESSION["user_id"];
$sql = "select * from doctor where user_id = $u_id";
$result = mysqli_query($conn,$sql);
if(mysqli_num_rows($result)>0){
    $row = mysqli_fetch_assoc($result);
}
$sql2 = "select password from users where user_id = $u_id";
$result2 = mysqli_query($conn, $sql2);
if(mysqli_num_rows($result2)> 0){
    $row2 = mysqli_fetch_assoc($result2);
}
if(isset($_POST['update_profile'])){
    $update_name = mysqli_real_escape_string($conn,$_POST['update_name']);
    $update_ph_no =  mysqli_real_escape_string($conn,$_POST['update_ph_no']);
    $update_email =  mysqli_real_escape_string($conn,$_POST['update_email']);
    $update_s =  mysqli_real_escape_string($conn,$_POST['update_s']);
    $update_pass =  mysqli_real_escape_string($conn,$_POST['update_pass']);
    $sql3 = "update doctor set name='$update_name',ph_no = '$update_ph_no',email='$update_email',
    specification='$update_s' where user_id = $u_id";
    $result3 = mysqli_query($conn,$sql3);
    $sql4 = "update users set username='$update_name',password='$update_pass',email='$update_email'
    where user_id = $u_id";
    $result4 = mysqli_query($conn,$sql4);
}
?>
<!DOCTYPE html>
```

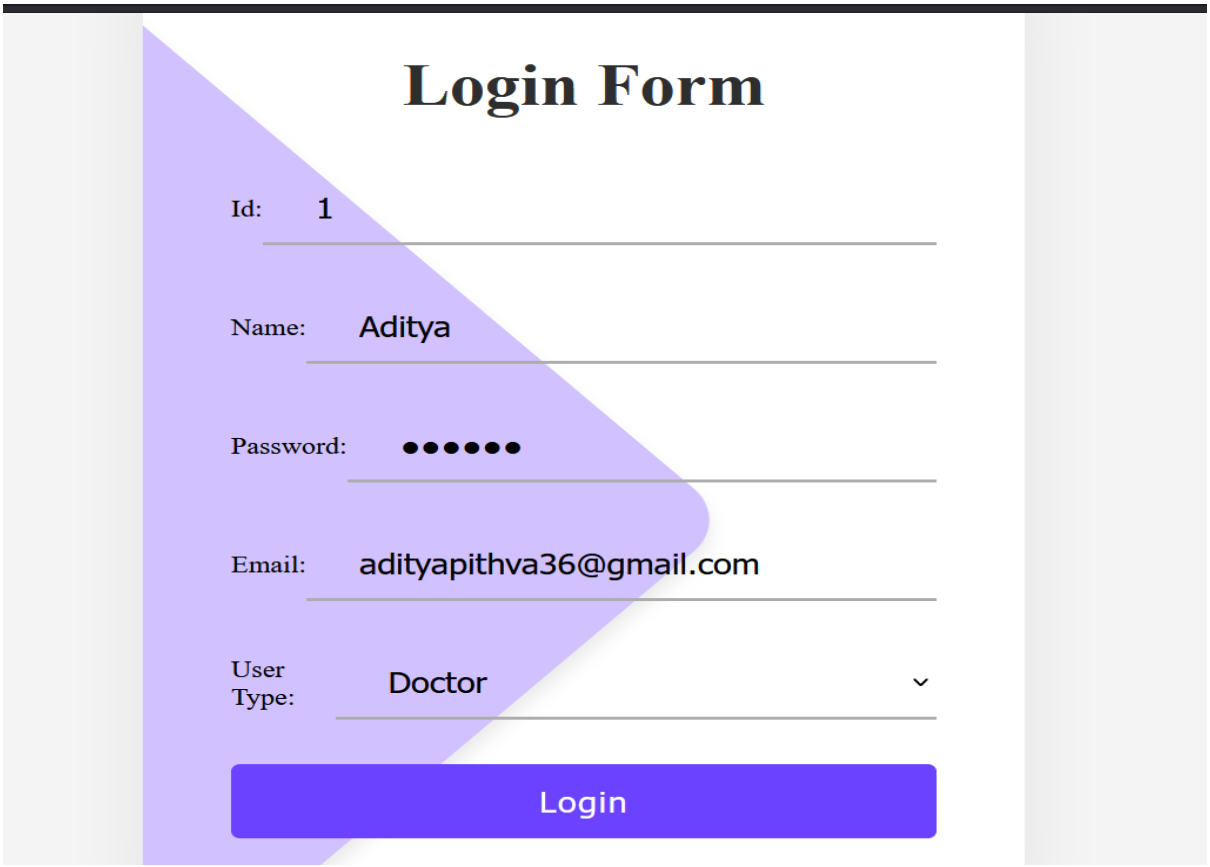
```php
<?php
$conn = new mysqli("localhost", "root", 12345, "healthcare");
if(mysqli_connect_errno()){
    die("Connection failed: " . mysqli_connect_error());
}
if($_SERVER["REQUEST_METHOD"] == "POST"){
    $doctor_id = $_POST["doctor_id"];
    $patient_id = $_POST["patient_id"];
    $name = $_POST["name"];
    $comment = $_POST["comment"];
    $rating = $_POST["rating"];
    $sql = "INSERT INTO feedback (doctor_id, patient_id, name, comment, rating) VALUES ('$doctor_id',
    '$patient_id', '$name', '$comment', '$rating')";
    $result = mysqli_query($conn, $sql);
    if($result){
        echo "Feedback submitted successfully";
    } else {
        echo "Error while submitting feedback: " . $conn->error;
    }
}
```

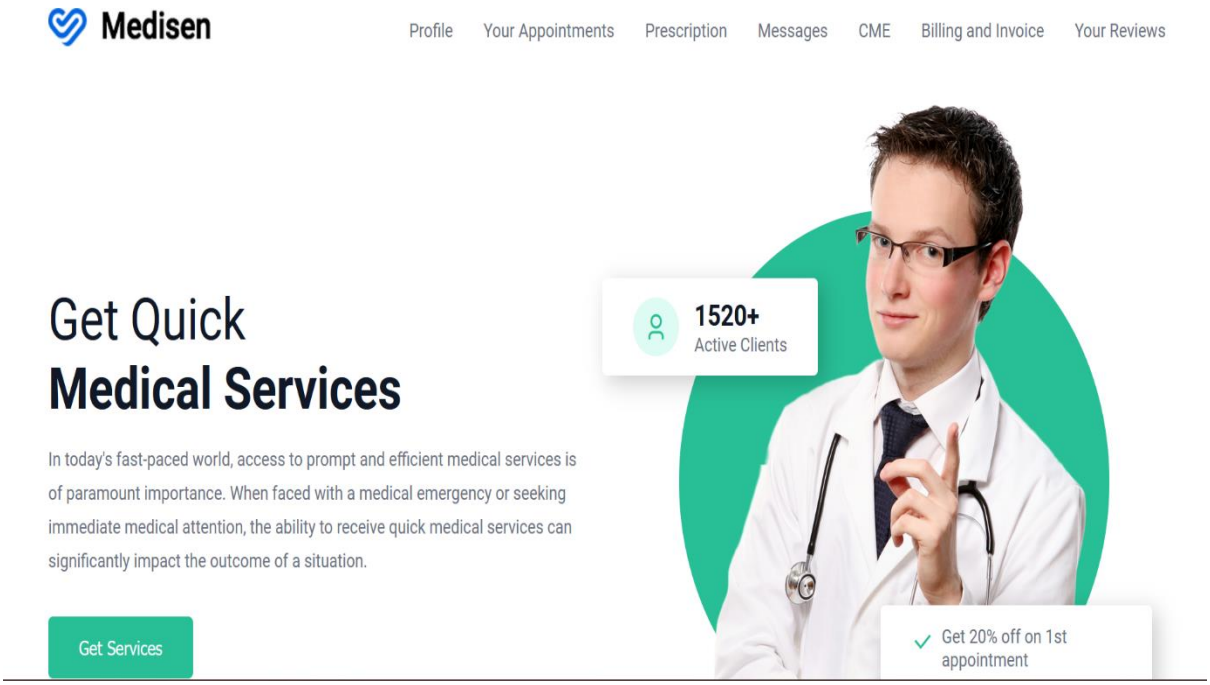
```php
<?php
session_start();
$user_name = $_SESSION["name"];
$conn = new mysqli("localhost", "root", 12345, "healthcare");
if (mysqli_connect_errno()) {
    die("Connection failed: " . mysqli_connect_error());
}
if ($_SERVER["REQUEST_METHOD"] == "POST") {
    if (isset($_POST['action']) && isset($_POST['appointment_id'])) {
        $action = $_POST['action'];
        $appointmentId = $_POST['appointment_id'];

        if ($action === 'accept') {
            $updateSql = "UPDATE appointment SET status='accepted' WHERE appointment_id=$appointmentId";
            mysqli_query($conn, $updateSql);
        } elseif ($action === 'reschedule') {

        }
    }
}
$id = $_SESSION["user_id"];
$sql = "SELECT * FROM appointment where doctor_id in (select doctor_id from doctor where user_id =
'$id')";
$result = mysqli_query($conn, $sql);
?>
<!DOCTYPE html>
<html lang="en">
<head>
    <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.2/dist/css/bootstrap.min.css"
```

Screenshots of Working Project





Medisen

Profile Your Appointments Prescription Messages CME Billing and Invoice Your Reviews

Aditya

Update profile

Log Out

Welcome, Dr.Aditya!

Medical Resources

Resource Id	Title	Description	Link	Category
1	The New England journal of Medicine	Peer-reviewed medical journal	https://www.nejm.org/	Journals
2	Cardiology Online Course	Introduction to cardiology	https://example.com/cardiology-course	Online Courses
3	Journal of Clinical Oncology	Oncology research and reviews	https://ascopubs.org/journal/jco	Journals
4	Human Anatomy Atlas	Interactive 3D anatomy reference	https://www.visiblebody.com/	Reference Tools
5	ClinicalTrials.gov	Database of privately and publicly funded clinical studies	https://clinicaltrials.gov/	Databases
6	Advanced Cardiac Life Support (ACLS) Certification	Online ACLS certification course	https://www.acls.com/	Online Courses

List of available online courses

References

- https://www.w3schools.com/php/default.asp
- https://chatgpt.com/
- https://gemini.google.com/
- PHP The Complete Reference : Steven Holzner
- Database System Concepts : Korth,Henry
- Introduction to Software Engineering : Rajib Mall