

# **Project Description**

## **Dynamic Website for a Dental Clinic**

**Web Technologies and Programming Course**

May 2024

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## Introduction

In our Web course, our team collaborated on developing a dynamic website for a dental clinic. The primary goal of the project is to facilitate communication and operations within the clinic.

On the administrative side, the website will include a backend system for clinic staff to manage appointments, patient history, doctors, treatments, general data, and feedback.

On the client's side the website will showcase every service the dental clinic offers to the general public. The clients will be able to view a photo gallery of the clinic, read the general information about the clinic, view treatments and leave feedback about the treatment.

This dual approach ensures that the website serves both the public-facing needs of patients and the internal management needs of the clinic staff efficiently.

Building the website involves developing both the frontend and backend components. The frontend will focus on delivering a responsive and intuitive user experience, while the backend will ensure data is managed securely and efficiently. This includes implementing secure authentication mechanisms for the admin panel and integrating a database to store and manage patient and clinic information.

## Scope

The project scope includes the creation of a fully functional website divided into two main sections:

- Client View : A public-facing interface for patients and visitors to access information about the clinic and its services.
- Admin View : A secure, feature-rich interface for clinic administrators and staff to manage the clinic's operations.

## Similar Products

We examined several established products in the medical clinic management software market to guide our design and feature set:

An example is the following : <https://fizioelite.com/>

## Requirements

The website needed to meet the following requirements to ensure functionality, usability, and security:

- User Interface: Intuitive and easy to navigate for both clients and administrative staff.
- Security: Security measures to protect sensitive data, especially in the admin view.
- Functionality: A comprehensive set of features that supports both patient interaction and clinic management.
- Features

### *Client View (No Login Required)*

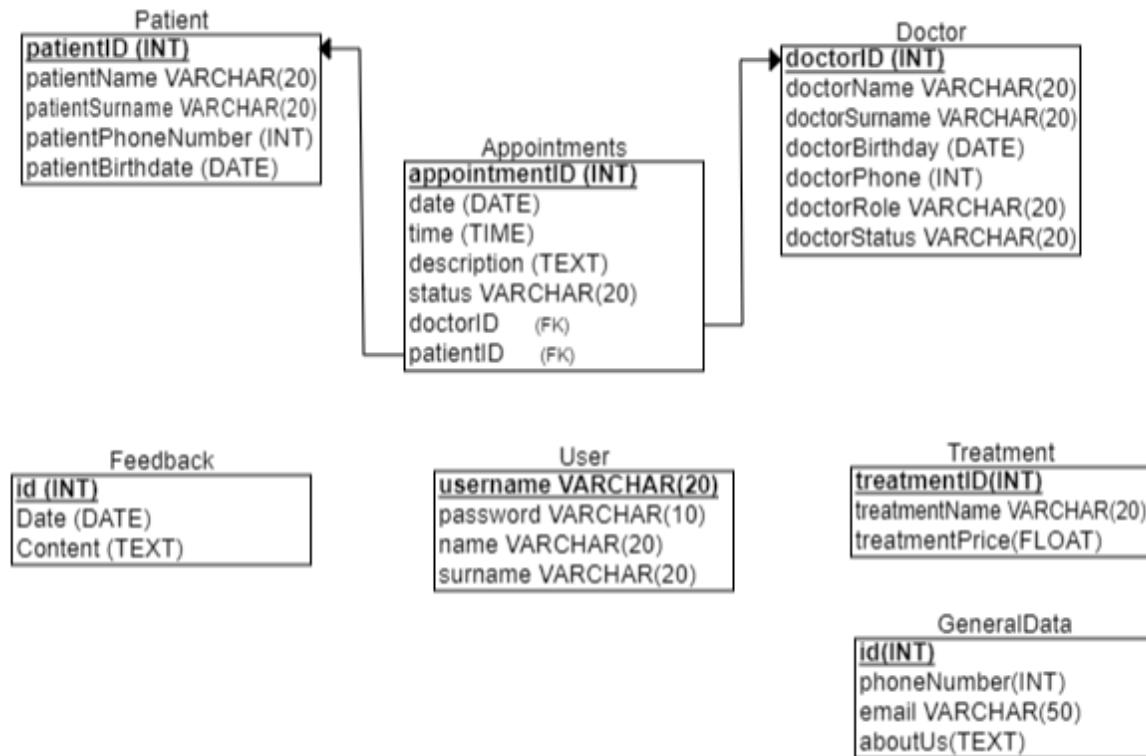
1. View Treatments: Patients can browse through available treatments, each with detailed descriptions and pricing information.
2. Add Feedback: Patients can submit feedback regarding their experiences at the clinic, helping the clinic to improve its services.
3. Contact Info: Display the clinic's contact information, including phone number and email.
4. About Us: Provide information about the clinic, its mission, history, and staff members.
5. Gallery: A carousel showcasing images of the clinic, staff, and various treatments to give patients a visual tour.

### *Administrator/Staff View (Login Required)*

1. Login Page: A secure login page for administrators and staff to access the backend system.
2. Main Menu: A dashboard providing easy access to all administrative functions.
3. Make/Edit Appointment (Confirm/Cancel): Schedule, edit, confirm, or cancel patient appointments efficiently.
4. View Patient History: Access and review detailed patient medical history and treatment records.
5. Add/Edit Doctor: Manage doctor profiles, including their availability and specialties.
6. Add/Edit Patient: Maintain comprehensive patient records, including personal information and treatment history.
7. Add/Edit Treatment: Update the list of available treatments, including descriptions and pricing.
8. Change General Data: Modify general clinic information displayed on the website, such as business hours and contact details.

9. View Feedback: Access and review feedback submitted by patients to help improve clinic services.

## Database Schema



## Front End

- Client View: Designed with a clean, modern aesthetic to ensure ease of use. The layout includes intuitive navigation menus, clear treatment descriptions, and an engaging image gallery.
- Admin View: A functional and user-friendly dashboard designed to facilitate quick access to administrative tasks. The design focuses on efficiency and ease of use for clinic staff.

## Back End

- Database: Structured to securely store patient records, appointment details, treatment information, feedback, and staff profiles.
- Security: Implementation of secure login mechanisms to protect sensitive information and ensure that only authorized staff can access the admin view.

## Technology Used

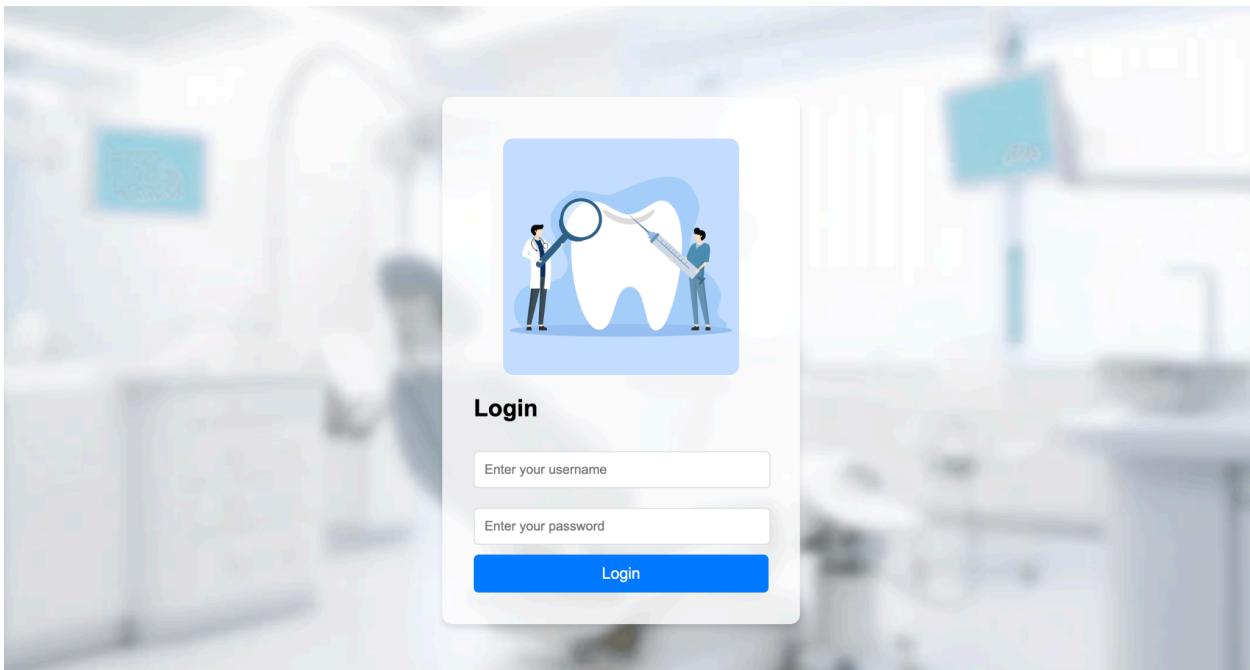
- HTML/CSS: For the structure and styling of the website, ensuring a professional and appealing look.
- JavaScript: To add interactivity and dynamic content updates for a seamless user experience.
- PHP: For server-side scripting and database interactions, providing a robust backend system.
- MySQL: To manage and store data securely and efficiently in the backend.
- Bootstrap: Utilized for responsiveness and modern design practices, ensuring the site looks great on all devices.

## Conclusion

This project not only showcases our technical abilities but also provides a practical solution to improve clinic management and patient engagement. Working in a group of seven allowed us to leverage our collective skills and knowledge, ensuring a successful and comprehensive project outcome. The project reflects our ability to collaborate effectively, manage complex tasks, and deliver a product that meets real-world needs.

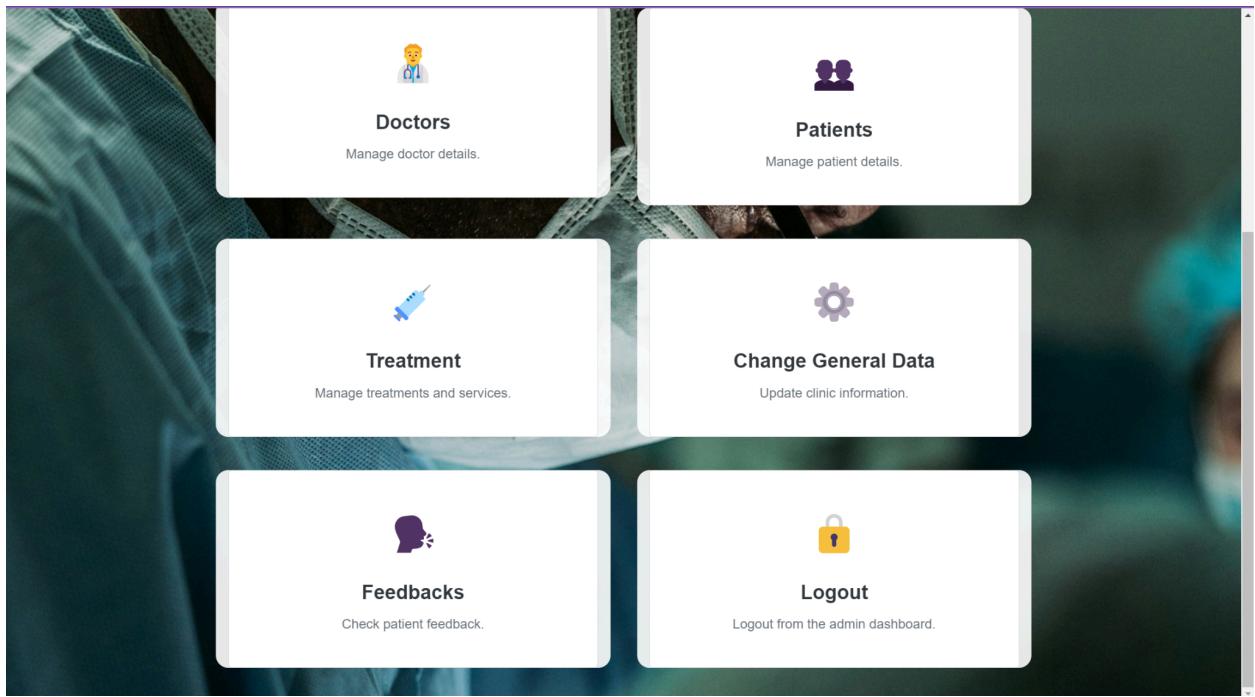
## Print Screens from the website

### LoginPage



### Admin Dashboard

A screenshot of the Admin Dashboard for a dental clinic. The dashboard has a dark background with a collage of dental-related images (X-rays, teeth) in the background. It features six main cards arranged in a grid: "Appointments" (calendar icon, "Confirm or cancel appointments."), "Patient History" (clipboard icon, "Check patient records and history."), "Doctors" (doctor icon, "Manage doctor details."), "Patients" (two people icon, "Manage patient details."), "Treatment" (syringe icon), and "Change General Data" (gear icon). The top left corner shows the text "Dental Clinic Admin" and the top right corner shows "Dashboard".



## View

### View Patients

Dashboard           

PatientID	Name	Surname	Phone Number	Birthdate	Action
1	Ema	Kola	695730257	2003-07-24	<input type="button" value="Edit"/>
2	Arlind	Kola	876754324	1999-08-10	<input type="button" value="Edit"/>
3	Klea	Faqolli	897656432	2003-09-12	<input type="button" value="Edit"/>
4	Deshira	Merhori	675645321	1974-06-21	<input type="button" value="Edit"/>
5	Aurora	Zhibaj	987654523	2001-09-21	<input type="button" value="Edit"/>
6	Test	Pacient	682434567	2003-03-12	<input type="button" value="Edit"/>

## Add

### Schedule new appointment

Date

 X

Time

 O

Doctor

 ▼

Patient

 ▼

Description

 ▼

Status

 ▼

Submit

## Client Page

### Dental Clinic

[View Treatments](#) [Add Feedback](#) [Gallery](#) [Contact Info](#) [About Us](#)

#### View Treatments

[Mbushje](#)

Price: 300 ALL

[Heqje](#)

Price: 400 ALL

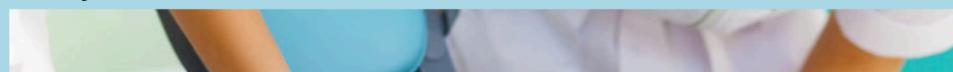
#### Add Feedback

Name

Feedback

Submit

#### Gallery



## Gallery



## Contact Info

Phone: 695730257

Email: dentalClinic@gmail.com

## About Us

Description i Ri.

## View Patient History

### Patient Details

Name: Aurora Zhibaj

Phone Number: 693838632

Birthdate: 2024-05-31

### Appointment History

Date	Time	Doctor	Description	Status
2024-06-06	10:10:00	Doctor	Tooth Filling	Done
2024-12-09	13:39:00	Doctor	Tooth Crown	Booked

[Go Back](#)

```
admin > 📂 connect-db.php
1  <?php
2
3  $server = 'localhost';
4  $user = 'root';
5  $pass = '';
6  $db = 'DentalClinic';
7
8  $conn = new mysqli($server, $user, $pass, $db);
9
10 if ($conn -> connect_error) {
11     die("Connection failed: " . $conn->connect_error);
12 }
13
14 ?>
```

```
login.php
1  <?php
2  session_start();
3  require_once('admin/connect-db.php');
4
5 // Check if the user is already logged in
6 if (isset($_SESSION["username"])) {
7     header("Location: admin/index.php");
8     exit();
9 }
10
11 $username = $_POST['username'];
12 $password = $_POST['password'];
13 $salt = "3P0K4!@## @_7!r4n3";
14
15 #Concatenate password with salt.
16 $password .= $salt;
17
18 #Encrypt password + hash
19 $password = md5($password);
20
21 $ret = mysqli_query($conn, "SELECT * FROM users WHERE Username = '$username' AND Password = '$password'");
22 or die(mysqli_error());
23 $result= mysqli_num_rows($ret);
24
25 if ($result == 1) {
26
27     $_SESSION["username"] = $username;
28     $_SESSION["logout_token"] = bin2hex(random_bytes(32));
29     header("Location: ./admin/index.php");
30     exit();
31 }
32 } else {
33     echo "Invalid username or password. Please try again.";
34 }
35
36 $conn->close();
37
38
39 ?>
```

```
intment.php ✘ X
<script>
$(document).ready(function() {
    $('.select2').select2();
});
</script>
</body>
</html>
<?php
}
include('connect-db.php');
// kontrollo nqs eshte klikuar butoni , dhe fut te dhenat ne databaze nqs eshte klikuar
if (isset($_POST['submit'])) {
    // merr te dhenat dhe sigurohu qe jane te pastra
    $description = mysqli_real_escape_string($conn, htmlspecialchars($_POST['description']));
    $time = $_POST['time'];
    $date = $_POST['date'];
    $patient = $_POST['patientID'];
    $doctor = $_POST['doctorID'];
    $status = $_POST['status'];
    // kontrollo qe jane mbushur
    if ($description == '' || empty($patient) || empty($doctor) || empty($status) || empty($time) || empty($date)) {
        // nqs nuk jane mbushur jep mesazh
        $error = 'Complete all fields!';
        // nqs ka ndodh gabim, pra nje fusha eshte bosh shfaqia fformen perseri qe ta mbushi
        shfaqForm($date, $time, $patient, $status, $doctor, $description, $error);
    } else {
        // check for overlapping appointments
        $check_overlap_query = "SELECT * FROM appointments WHERE doctorID = '$doctor' AND date = '$date' AND time = '$time' AND Status != 'Booked'";
        $check_overlap_result = mysqli_query($conn, $check_overlap_query);

        if (mysqli_num_rows($check_overlap_result) > 0) {
            $error = 'The selected doctor already has an appointment at this time.';
            shfaqForm($date, $time, $patient, $status, $doctor, $description, $error);
        } else {
            // kontrollo nqs pacienti ekziston ne databaze, nese jo, shtoje
            $check_patient_query = "SELECT * FROM patient WHERE PatientID = '$patient'";
            $check_patient_result = mysqli_query($conn, $check_patient_query);

            if (mysqli_num_rows($check_patient_result) == 0) {
                // pacienti nuk ekziston, shtoje ne databaze
                $new_patient_name = mysqli_real_escape_string($conn, $_POST['new_patient']);
                $insert_new_patient_query = "INSERT INTO patient (PatientName) VALUES ('$new_patient_name')";
                mysqli_query($conn, $insert_new_patient_query);
                $patient = mysqli_insert_id($conn);
            }

            // shtoje te dhenat ne databaze ne tabelen "appointments"
            $query = "INSERT INTO appointments (description, date, time, doctorID, status, patientID) VALUES ('$description', '$date', '$time', '$doctor', '$status', '$patient')";
            mysqli_query($conn, $query) or die(mysqli_error($conn));
            // pasi te dhenat shtohen coje tek shfaqia e te dhenave qe ta shohi
            header("Location: viewAppointments.php");
        }
    }
} else {
    // kjo shfaq formen per here te pare bosh
    shfaqForm('', '', '', 'Booked', '', '', '');
}

```

✓ No issues found

```
patient.php*  ✘ newAppointment.php
<div class="container">
    </form>
</div>
</body>
</html>
<?php
}

// Database connection
include('connect-db.php');

// Check if form is submitted
if (isset($_POST['submit'])) {
    // Check if 'id' is numeric
    if (is_numeric($_POST['id'])) {
        // Get form values and validate
        $id = $_POST['id'];
        $PatientName = $_POST['PatientName'];
        $PatientSurname = $_POST['PatientSurname'];
        $PatientBirthdate = $_POST['PatientBirthdate'];
        $PatientPhoneNumber = $_POST['PatientPhoneNumber'];

        // Update data in database
        mysqli_query($conn, "UPDATE patient SET PatientName='$PatientName', PatientSurname='$PatientSurname', PatientBirthdate='$PatientBirthdate', PatientPhoneNumber='$PatientPhoneNumber' WHERE PatientID='$id'");
        or die(mysqli_error($conn));

        // Redirect to view page after update
        header("Location: viewPatient.php");
    } else {
        // If 'id' is not valid, show error
        echo 'Error!';
    }
} else {
    // If form is not submitted, get data from database
    if (isset($_GET['id']) && is_numeric($_GET['id']) && $_GET['id'] > 0) {
        // Fetch data from database based on 'id'
        $id = $_GET['id'];
        $result = mysqli_query($conn, "SELECT * FROM patient WHERE PatientID=$id");
        or die(mysqli_error($conn));
        $row = mysqli_fetch_array($result);
        // Check if 'id' matches with any row in database
        if ($row) {
            // Get data from database
            $PatientName = $row['PatientName'];
            $PatientSurname = $row['PatientSurname'];
            $PatientBirthdate = $row['PatientBirthdate'];
            $PatientPhoneNumber = $row['PatientPhoneNumber'];
            // Show form
            showEditForm($id, $PatientName, $PatientSurname, $PatientBirthdate, $PatientPhoneNumber, '');
        } else {
            // If no match found, display message
            echo "No patient records found!";
        }
    } else {
        // If 'id' is not provided in URL, show error
        echo 'Error!';
    }
}
?>

No issues found
```