

Team Name: End-to-End Engineers

Team members:

Noor Ihab Hamed 2406229

Asser Ahmed Fouad 2406262

Mohamed Mostafa Mohamed 2406237

Mohanad Hossam Shawky 2406205

Project Name: Medical Appointment System

Problem Statement:

Patients usually face problems when trying to book medical appointments because they have to wait on the phone or stand in long lines at the clinic. Clinics also suffer from issues like manual scheduling, booking conflicts, and finding patient records. Our system aims to make booking easier and keep all medical information stored in one organized place for both patients and doctors.

Challenges or inefficiencies we are trying to solve:

- Allow patients to book appointments online easily.
- Keep all patient records and prescriptions organized.
- Prevent double bookings by organizing doctor schedules properly.
- Give different permissions for patients, doctors, and admins.

Objectives:

Goals we aim to achieve with this project:

- Create a simple system for booking appointments.
- Provide doctor schedules and availability.
- Enable doctors to view and modify their daily schedule.
- Allow admins to manage users, doctors, and schedules.

Desired outcomes:

Make booking faster and easier, stop double bookings, and keep all patient information in one place for the users.

Project Features:

Key functionalities of the project:

- User registration (Patients, Doctors, Admins).
- Search and filter doctors by specialty and rating.
- Appointment creation, rescheduling, cancellation.
- Doctors schedule management.
- Patient appointments history.
- Admin dashboard for doctors and schedules management.

Features and capabilities needed to achieve the objectives

- Database with users, patients, doctors and appointments.
- Role-based access.
- Frontend forms for booking appointments and viewing schedules.
- Backend system for creating, reading, updating, and deleting data, and sending email verifications.

GitHub Link:

- Repository: https://github.com/NoorYounes14/Medical_appointment_system_.git
- Live site: https://nooryounes14.github.io/Medical_appointment_system_/

Pseudo Code

Start the system

Connect PHP to the database

Start session

Open the login page

User chooses account type (patient, doctor, admin)

User enters email and password

Send data to PHP

PHP receives data

Check if email exists in database

Check password

If correct
Save user id and role in session
Open the correct dashboard
Else
Show login error
End if

User clicks forgot password
Open forgot password page
User enters email
Send email to PHP

PHP checks if email exists
If exists
Generate 6 digit code
Save code in database
Send code to email
Show code input page
Else
Show error
End if

User enters the 6 digit code
Send code to PHP
PHP compares code

If code matches
Show new password page
Else
Show error
End if

User enters new password
Confirm password
Send to PHP

PHP hashes password

Update password in database
Remove reset code
Redirect to login

User opens registration page
User fills data
Send data to PHP

PHP validates data
Hash password
Insert user into database
Redirect to login

Patient logs in
Load patient dashboard
Fetch doctors and available slots
Display data

Patient books appointment
Send appointment to PHP
Save appointment in database

Doctor logs in
Load doctor dashboard
Fetch appointments
Display schedule

Doctor edits availability
Send update to PHP
Update database

Admin logs in
Load admin dashboard
Fetch users and appointments
Admin manages data
Update database

User clicks logout

Destroy session
Return to login

End system

| Test Case ID | Test Scenario | Test Case | Pre-Condition | Test Steps | Test Data | Expected Result | Post-Condition | Actual Result | Status | Tested by |
|--------------|------------------------------------|--|--|---|---|--|--|--|--------|-----------|
| TC_VD_001 | View doctor availability & profile | Patient views doctor profile and available appointment slots | Patient logged in, doctor exists in system | 1-Go to Find Doctors page 2-Select view availability on a doctor 3-View available dates | No Input | Doctor's info & available slots are displayed | Profile remains open until patient leaves the page | Doctor's profile & availability are shown successfully | Pass | Noor |
| TC_EN_002 | Edit notification settings | Disable /Enable appointment notifications via SMS/email | User(Patient, Doctor, Admin) logged in | 1-Click Settings 2-Turn Email/SMS notifications and/or appointment reminders off/on 3-Click Save Settings | SMS reminders: Off/On Email reminders: Off/On Appointment reminders: Off/On | Settings are saved correctly and reflect the user's choice | Notification settings updated for the user | Settings updated successfully | Pass | Noor |

| | | | | | | | | | | |
|-----------|--------------------------------------|--|---|--|---------------------------|---|---|---|------|---------|
| TC_DS_003 | Admin views doctors schedules | Display doctors appointments | Admin logged in,at least a doctor exists | 1-Click on all appointments 2-Optionally,filter by doctor or status | Doctors, status | All doctors appointments displayed and filtered results are shown correctly when made | Appointments list remains displayed until another filter is applied or the page is left | All appointments displayed And filters worked correctly | Pass | Noor |
| TC_SD_004 | Search doctors by specialty | Filter using specialty dropdown | Patient logged, Multiple doctors exist | 1-Go to find doctors page 2-Select specialty from dropdown 3-Check displayed doctors specialties and names | <Specialty: Cardiology> | Doctors from selected specialty displayed | Filtered list remains until a new filter is applied | Doctors from Cardiology displayed successfully | Pass | Asser |
| TC_CA_005 | Patient cancel upcoming appointment | Cancel an upcoming appointment | Patient logged, at least one upcoming appointment | 1-Navigate to “My Appointments” 2-Click Cancel Appointment 3-Click Remove on the confirmation popup | No Input | Selected appointment is canceled and removed from upcoming appointments list | Appointment no longer appears in the upcoming appointments list | Selected appointment canceled and removed from upcoming appointments list | Pass | Asser |
| TC_UP_006 | Updating patient profile information | Modify patient personal details | Patient logged in | 1-Go to Profile 2-Change information 3-Click Update Profile | Patient Information | Profile information updated successfully with confirmation message | Updated data persists in database and displays on profile page | Profile updated successfully with confirmation message displayed | Pass | Asser |
| TC_CP_007 | Creating patient account | Create patient account with valid data | Need a valid email | 1-Click create patient account 2-Enter data 3-Click Register | Valid patient information | Patient account created | Patient data shown in system | Account created successfully | Pass | Mohanad |

| | | | | | | | | | | |
|-----------|------------------------------------|---------------------------------|---|--|---|---|--|---|------|---------|
| TC_AT_008 | Doctor manage time availability | Add available time slot | Doctor logged in, schedule available | 1-Click on Manage Availability 2-Choose date and time 3-Click on Add Slot | Available time | Time slot added | Schedule updated and appears with the new slot | Time slot added successfully | Pass | Mohanad |
| TC_RD_009 | Admin registers a doctor | Add a new doctor | Admin logged in | 1-Click on Manage Doctors 2-Click on Add New Doctor 3-Enter valid credentials 4-Click Add Doctor | Doctor's name, email, password, specialty, number, bio (optional) | New doctor added and appears in the doctors list | Doctor remains in the list until deleted | Doctor added successfully and appears in the list | Pass | Mohanad |
| TC_VA_010 | Patient views available time slots | View Doctor Availability | Patient logged in, at least 1 doctor exists | 1-Go to Find Doctors 2-Click View Availability for a doctor 3- View available dates & time slots | No Input | Display doctor's available time slots | Slots remain visible | Time slots displayed successfully | Pass | Mohamed |
| TC_DD_011 | Admin deletes a doctor | Remove a doctor from the system | Admin logged in, At least one doctor exists in the system | 1-Go to Manage Doctors 2- Find the doctor you want to delete and click Delete 3-Click Remove | No Input | Doctor account is deleted and no longer appears in the doctors list | Doctor's information is removed from Admin and Patient views | Doctor deleted successfully | Pass | Mohamed |
| TC_ED_012 | Admin edits doctor information | Update doctor's details | Admin logged in, At least one doctor exists | 1-Go to Manage Doctors 2- Find the doctor you want to edit and click edit 3-Change credentials 3-Click Save Changes | Doctor Credentials | Doctor's information is updated | Updated information is saved in the system and is visible to Admin and Patient | Doctor information updated successfully | Pass | Mohamed |