### ****Hospital Management System (Windows Forms) - Summary of Pages****

#### ****1️⃣ Login Page (LoginForm)****

* The user enters their email and password.
* The system verifies credentials from the database.
* If the user exists, they are redirected based on their role:
  + **Admin** → Admin Dashboard (AdminDashboardForm)
  + **Doctor** → Doctor Dashboard (DoctorDashboardForm)
  + **Patient** → Patient Dashboard (PatientDashboardForm)
* If credentials are incorrect → an error message is displayed.

🔹 **Navigation Logic:**

* If credentials are valid, the user is redirected to their respective dashboard.
* If credentials are invalid, an error message appears.

#### ****2️⃣ Registration Page (RegisterForm) (For Patients Only)****

* The patient fills in their name, email, and password.
* Their data is stored in the database, and they are redirected to the **PatientDashboardForm**.
* ⚠️ **No one can register as Admin or Doctor.**
  + Only the **Admin** can add doctors and other admins from the control panel.

🔹 **Navigation Logic:**

* After successful registration → the **PatientDashboardForm** opens directly.

#### ****3️⃣ Admin Dashboard (AdminDashboardForm)****

* This page is **only accessible** to the **Admin** after logging in.
* It contains buttons to manage:
  + **Doctors (DoctorManagementForm)**
  + **Patients (PatientManagementForm)**
  + **Specialties (SpecialistManagementForm)**
  + **Appointments (AppointmentsManagementForm)**
  + **Profile (ShowProfileForm)**
  + **Logout** → Returns to the **LoginForm**

🔹 **Navigation Logic:**

* Clicking "Manage Doctors" → Opens **DoctorManagementForm**.
* Clicking "Manage Patients" → Opens **PatientManagementForm**.
* Clicking "Manage Specialties" → Opens **SpecialistManagementForm**.
* Clicking "Manage Appointments" → Opens **AppointmentsManagementForm**.
* Clicking "Edit Profile" → Opens **EditProfileForm**.
* Clicking "Logout" → Closes the window and returns to **LoginForm**.

#### ****4️⃣ Doctor Management (DoctorManagementForm)****

* The **Admin** can **add, edit, and delete** doctors.
* When a new doctor is added, their data is stored in the database, creating an account for them.

🔹 **Navigation Logic:**

* Clicking "Add Doctor" → Opens **AddDoctorForm** for entering doctor details.
* After adding, the doctor list is updated.
* Clicking "Delete Doctor" → Removes the doctor from the database after confirmation.

#### ****5️⃣ Patient Management (PatientManagementForm)****

* Displays a list of all registered patients.
* **Only patient data can be viewed** (they cannot be deleted).

🔹 **Navigation Logic:**

* Clicking "View Patient Profile" → Opens **ShowProfileForm** for the selected patient.

#### ****6️⃣ Specialties Management (SpecialistManagementForm)****

* The **Admin** can **add, edit, and delete** medical specialties.
* Specialties are later assigned to doctors when they are added.

🔹 **Navigation Logic:**

* Clicking "Add Specialty" → Opens a form to enter a specialty name.
* Clicking "Delete Specialty" → Removes it from the list after confirmation.

#### ****7️⃣ Appointment Management (AppointmentsManagementForm)****

* The **Admin** can schedule appointments between **patients and doctors**.
* The **doctor and patient** are selected from dropdown lists.
* The **date and time** are chosen.
* After adding, the appointment is stored in the database and displayed in the appointment list.

🔹 **Navigation Logic:**

* Clicking "Add Appointment" → Saves the appointment and updates the list.
* Clicking "Delete Appointment" → Removes it after confirmation.

#### ****8️⃣ Edit Profile (EditProfileForm)****

* Any **user (Admin, Doctor, or Patient)** can edit their personal details:
  + **Name**
  + **Email**
  + **Password**
* After editing, the data is updated in the database.

🔹 **Navigation Logic:**

* This page opens when a user clicks "Edit Profile" from their respective dashboard.
* After saving, the window closes, and the user returns to their main page.

#### ****9️⃣ View Profile (ShowProfileForm)****

* Displays the user’s **profile details** (read-only).
* A "Edit Profile" button allows the user to update their information.

🔹 **Navigation Logic:**

* This page opens when a user clicks "View Profile" from their dashboard.
* Clicking "Edit Profile" → Opens **EditProfileForm**.

### ****💡 User Roles & Permissions****

| **Role** | **Permissions** |
| --- | --- |
| **Admin** | - Add doctors and other admins  - Manage patients and specialties  - Assign appointments  - Edit profile |
| **Doctor** | - View their own appointments  - Edit profile |
| **Patient** | - View their own appointments  - Edit profile |

### ****🎯 Expected Behavior for Different Scenarios****

| **Action** | **Outcome** |
| --- | --- |
| A **patient** registers a new account | They are added as a **"Patient"** and redirected to **PatientDashboardForm**. |
| An **Admin** adds a new **doctor** | The doctor is registered in the database and can log in later. |
| An **Admin** schedules an appointment for a **patient** | The appointment is saved in the database and appears in both the doctor’s and patient’s schedules. |
| A **user** updates their profile | Their data is updated in the database. |
| A **user** clicks "Logout" | The page closes, and they return to **LoginForm**. |