Due: 13/10/2024

FIT2001 - Systems Development Assignment 3

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PERSONA RESEARCH & CREATION

While developing a detailed persona, we came up with a research plan (Figure 4.1) that was designed to address all the essential criteria for creating an effective persona. We delve into the details of the persona in Figure 4.2, which provides a comprehensive representation of the target user's characteristics, goals, and challenges. To collect user information, we conducted semi-structured interviews and distributed surveys. Interviews allowed us to capture qualitative patient, doctor, and admin staff insights about their unique needs and system requirements. For example, patient interviews focused on challenges with managing gestational diabetes and healthcare interactions, while surveys captured broader user demographics, preferences, and behaviours.

Data from these sources were analysed to identify patterns in user behaviour and recurring challenges. This led to the creation of distinct user groups, each with specific goals, needs, and system interactions. The focus of this persona development was on the patient-user group. The resulting persona, Alalla Marokov, a pregnant marketing specialist with gestational diabetes, highlights key user characteristics such as her distrust of doctors, reliance on technology, and preference for remote access to the system (Figure 4.3). Scenarios were developed to depict how Alalla would engage with the clinic’s system, ensuring the persona was relatable to stakeholders and integrated into the design process.

Ultimately, the persona development focused on Alalla’s habits, frustrations and pain points, all of which affect how she interacts with the system. Her medical history and specific needs as a pregnant woman with gestational diabetes shaped key system features like real-time health monitoring and access to additional resources. By sharing this persona to the team and stakeholders, it ensures that the system will be tailored to users like Alalla which results in more patient-focused solutions and a better system design.

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Persona Research plan

Objective: to develop an accurate and detailed persona for the users of the Lee Gestational Diabetes Clinic's system while focusing on the admin, patient and doctor roles.

1. **Collecting information about your users**
   - One way to collect information about the users of the Lee Gestational Diabetes Clinic's information system is by conducting semi-structured interviews with individuals from each user group.
   - Another way is to use surveys to cater to a larger sample of users. This quantitative data can provide valuable insights into user preferences, behaviours and demographics.
2. **Identify behavioural patterns from research data.**
   - Review the data collected from the interview/survey to identify common themes and behaviours.
   - Look for recurring challenges and usage patterns that can help divide the users into distinct groups.
3. **Create personas and prioritise them.**
   - Created a detailed persona for the patient user group, which included demographic information, goals, needs, challenges and behavioural traits.
4. **Identify relevant scenarios for the personas.**
   - Create scenarios that depict how the persona interacts with the system in different ways.
5. **Share your findings and socialise personas among stakeholders**
   - Ensure the team and stakeholders see the value in the persona and integrate them into the design process.

Figure 4.1 - Research plan for creating the persona

Name demographic stats : Age Height Weight Address Profession Marital status Income Ethnicity Primary language	General demographic Summary [Paragraph of demographic] --- Personality metrics: Anger easily Depressed easily Frustrates easily Tired easily Familiar with tech	Medical history: - Chronic condition - Recent conditions - Allergies - Ongoing issues - Current state of pregnancy - Current state of diabetes
Behavioural Pattern & Attitudes -Habits -Frustrations -Pain points -Bias's -Familiarity with medicine -Familiarity with the clinic's system	Personality -Primary motives -Goals -Hobbies -Preferences -Media consumption --- Primary needs from the system	Likely circumstances of operation: [when will they use the system?] : Why? When? How? Where? On what platform?

Figure 4.2 - Table draft of the details for the persona creation

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Figure 4.3 - Detailed Persona Profile for Alalla Marokov

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PROTOTYPES & PROTOTYPE DESCRIPTIONS

The following low-fidelity wireframes depict the following business functionality:

- Manage Patient:
    - Create, Update, and View Patient details (Admin view)
    - Archive Patient details (Admin view)
    - Manage Patient doctor allocation (Admin view)
- Manage Patient Diary:
    - Record diary entry (Patient view)
    - Provide automated diary reminders (System view)
    - Provide automated feedback (System view)
- Review Patient:
    - Review diary data and provide feedback (Doctor view)
    - Record appointment notes (Doctor view)
    - Provide resources to patient (Doctor view)

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Manage Patient

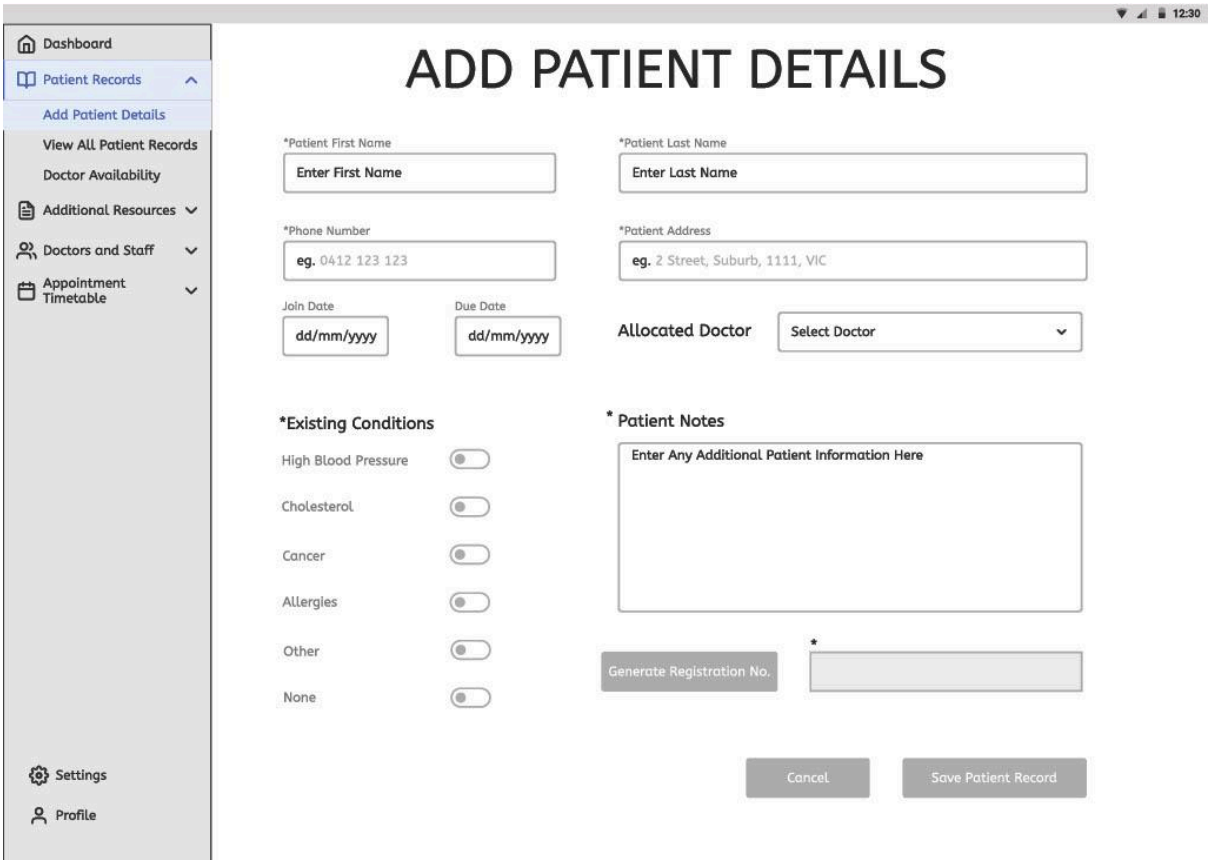

Figure 1.1 - Manage Patient Wireframe 1

In Figure 1.1, the wireframe illustrates the admin interface for the new system. This interface is designed to allow administrators to input patient details for new patients joining the clinic. The wireframe includes text fields for manually entering information such as the patient's name and phone number, along with switches to indicate any relevant medical conditions. The admin can either press the ‘Cancel’ button to reset the form or select ‘Save Patient Record’ to submit the data.

The sidebar displays the various pages available to the admin. Clicking the arrow icon reveals additional options, providing quick and easy access to further pages.

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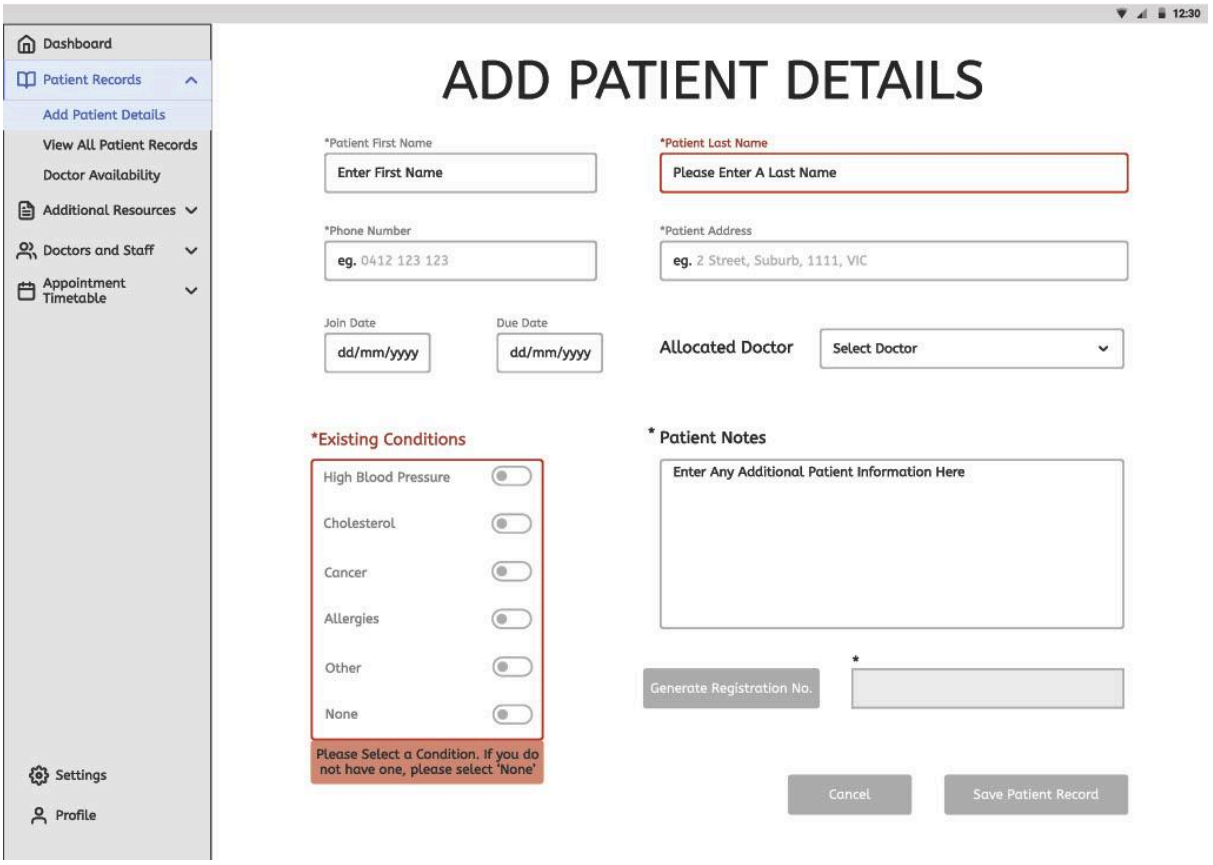

Figure 1.2 - Manage Patient Wireframe 2

In Figure 1.2, if the 'Save Patient Record' button is pressed without completing all the required fields, the system will prevent the user from proceeding to the next page. It will highlight the incomplete fields in red to indicate where input is missing. For certain fields that require further clarification, an error message will also appear. Red was chosen as the error colour because it is quickly recognised by the human eye, making it an effective visual cue for drawing attention to incomplete or incorrect entries.

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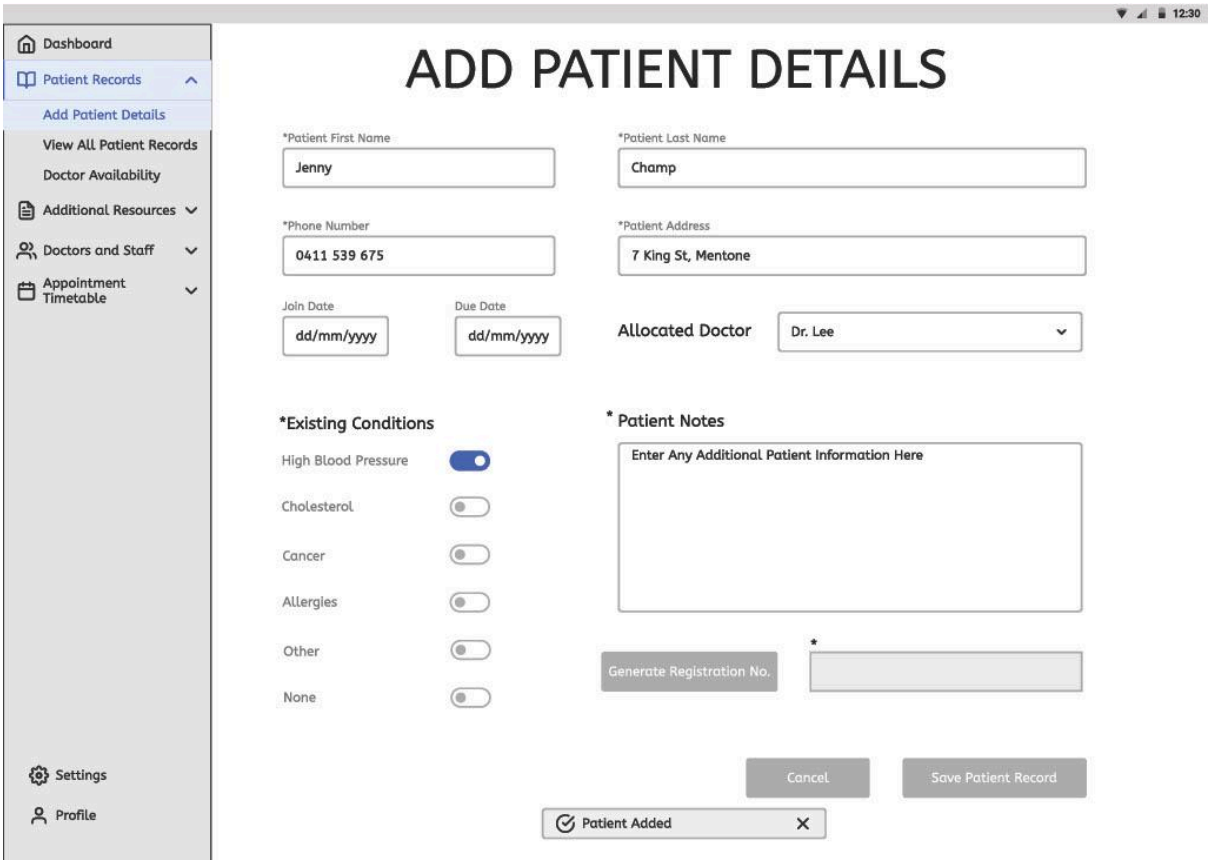

Figure 1.3 - Manage Patient Wireframe 3

Figure 1.3 displays a snack bar notification confirming that a patient's information has been successfully added to the system after pressing the 'Save' button. Once the message fades, the user is automatically redirected to the Patient Information page.

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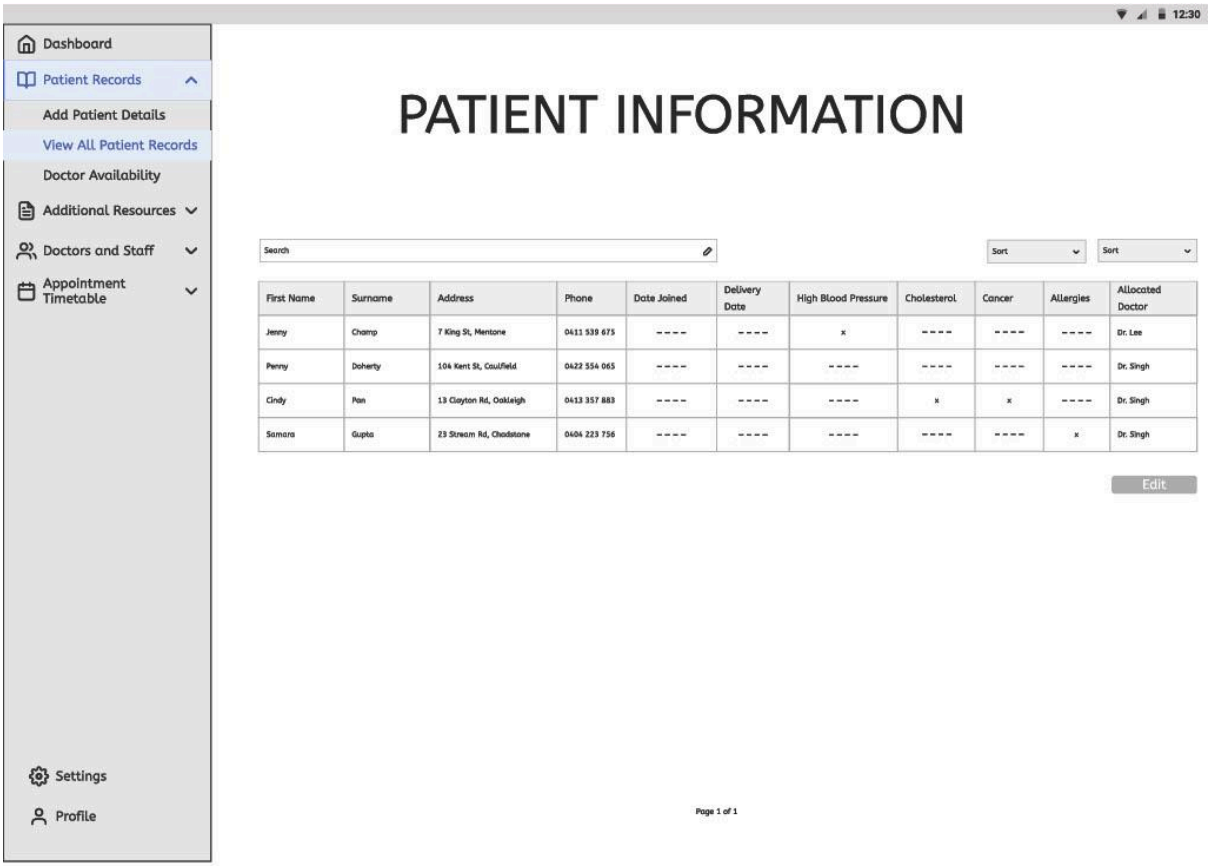

Figure 1.4 - Manage Patient Wireframe 4

The Patient Information page can be accessed through two routes: the first is after completing the Add Patient Details process, and the second is via the sidebar under "Patient Records," then selecting "View All Patient Records." This page displays the list of patients currently receiving treatment at the Lee Pregnancy Gestational Diabetes Clinic. It includes a search bar for finding specific patient details and sorting options for various fields. If staff need to update patient information, they can click the "Edit" button, which will navigate them to the interface shown in Figure 1.5.

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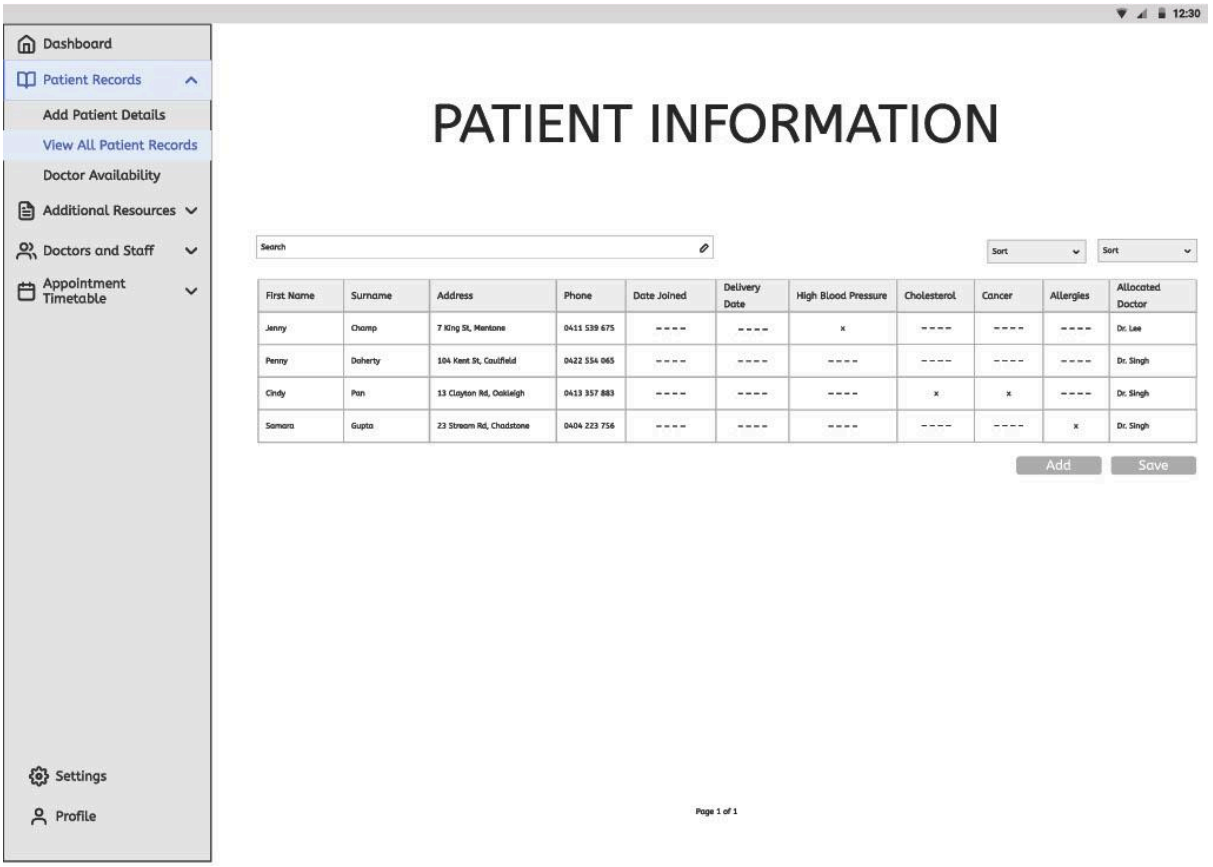

Figure 1.5 - Manage Patient Wireframe 5

This page allows admin staff to click on patient names, which will take them to a dedicated page for editing the appropriate fields (as shown in Figure 1.6). If admin staff need to add a new patient, they can simply press the 'Add' button, which redirects them to the Add Patient Details page (Figure 1.1).

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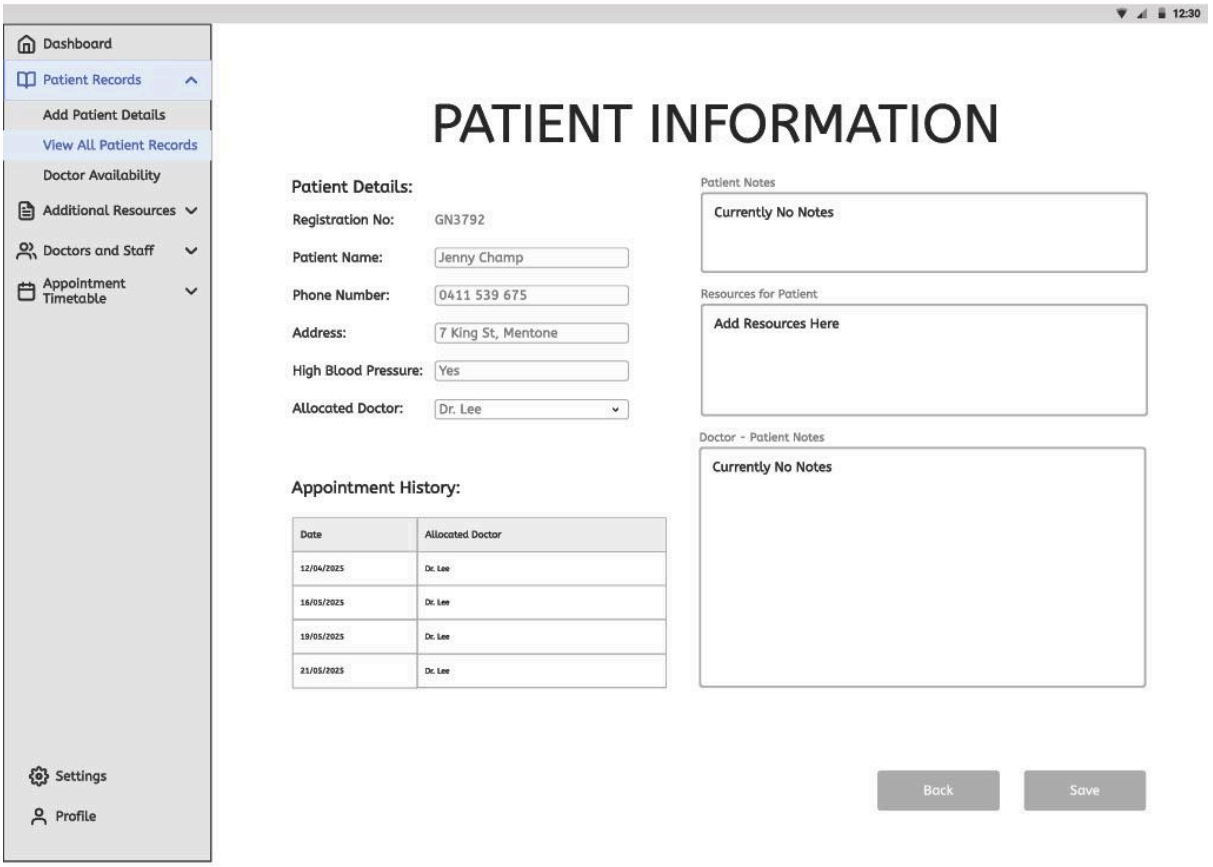

Figure 1.6 - Manage Patient Wireframe 6

Figure 1.6 enables admin staff to edit patient information, with the exception of certain fields: the patient's Registration Number, Appointment History, Patient Notes, and Doctor-Patient Notes, which cannot be modified. After making any changes, the admin must press the 'Save' button, which will return them to the page shown in Figure 1.4. If no edits are needed, pressing the 'Back' button will also navigate back to Figure 1.4.

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Manage Patient Diary

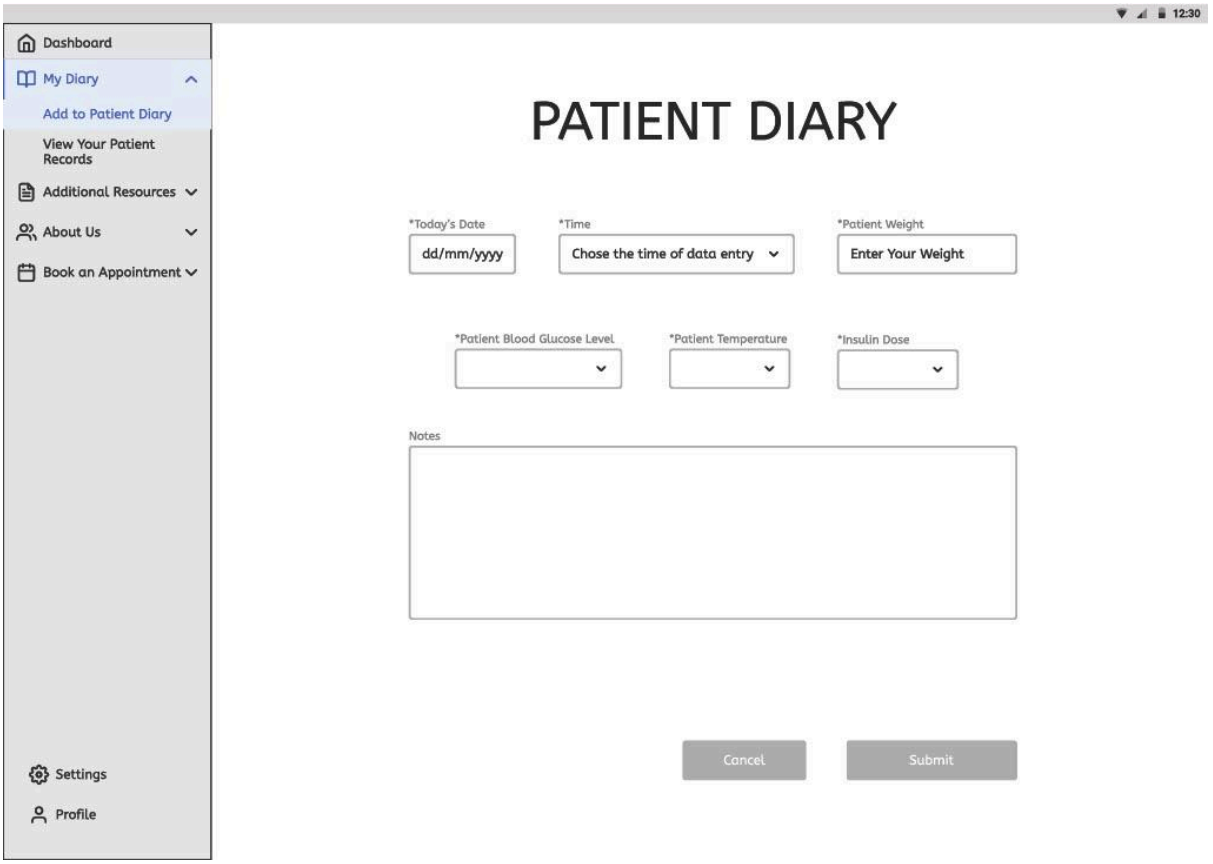

Figure 2.1 - Manage Patient Diary Wireframe 7

In Figure 2.1, the wireframe depicts the interface a patient uses to update their patient diary. This interface allows the patient to input information such as their name, the date, time of data entry, current weight, blood glucose level, body temperature, insulin dose, and any personal notes regarding their experience while receiving treatment at the clinic. Similar to Figure 1.2, if any required fields are left blank after pressing the 'Submit' button, those fields will turn red to indicate that they need to be completed. Pressing the 'Cancel' button clears all input, allowing the patient to start the form again.

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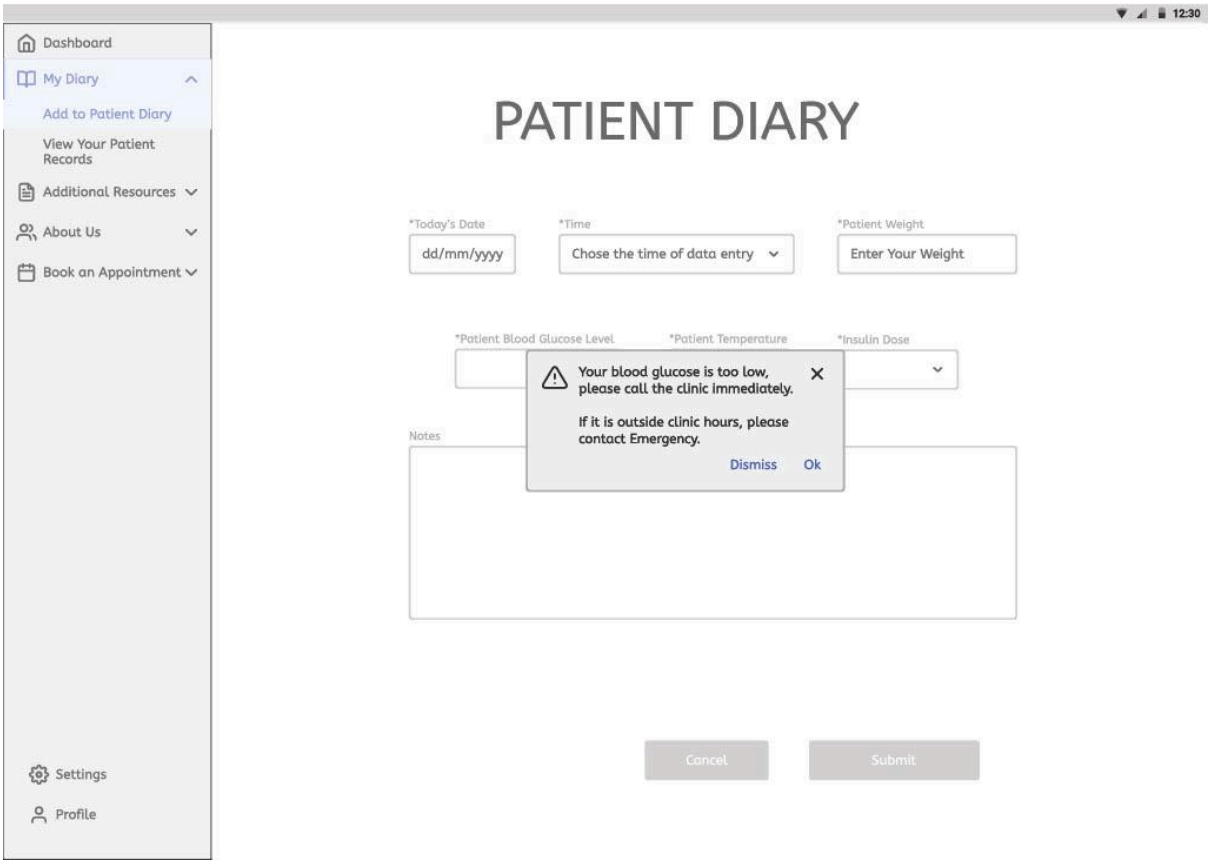

Figure 2.2 - Manage Patient Diary Wireframe 8

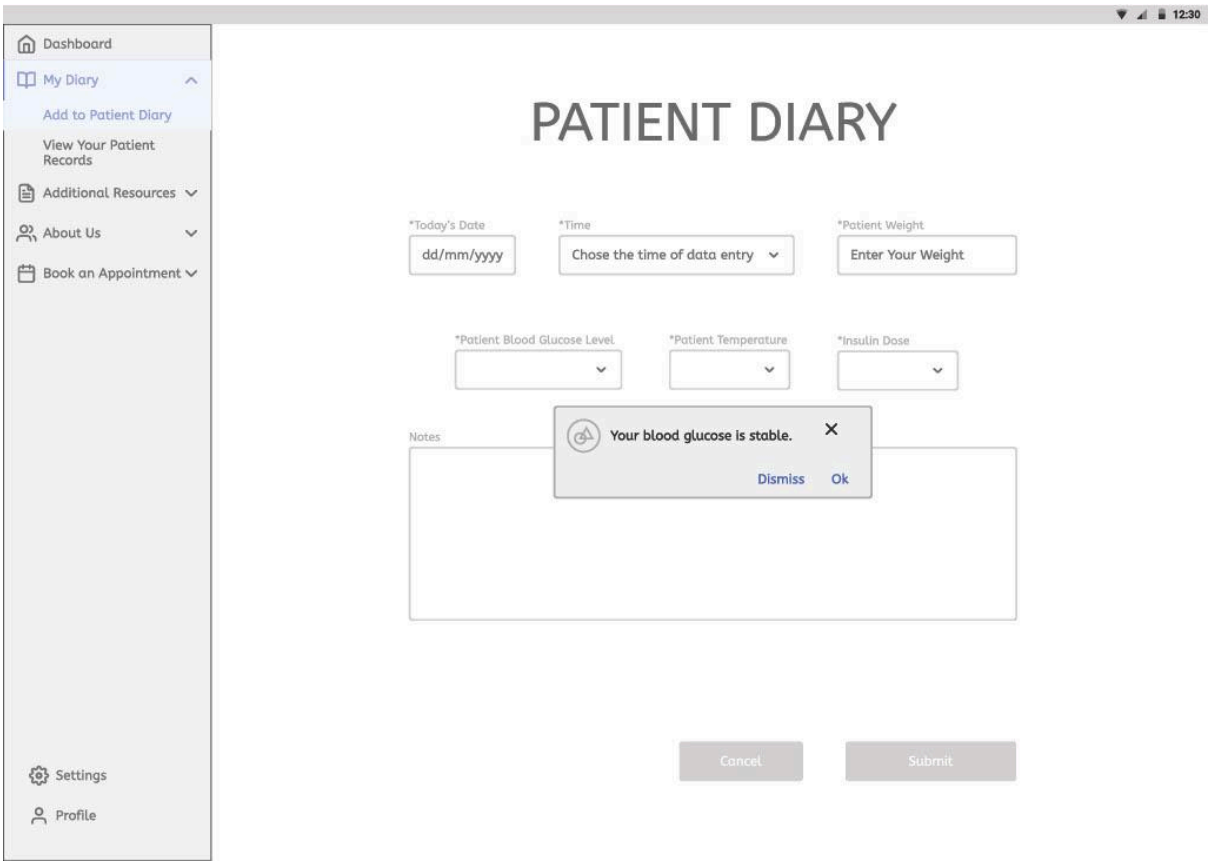

Figure 2.3 - Manage Patient Diary Wireframe 9

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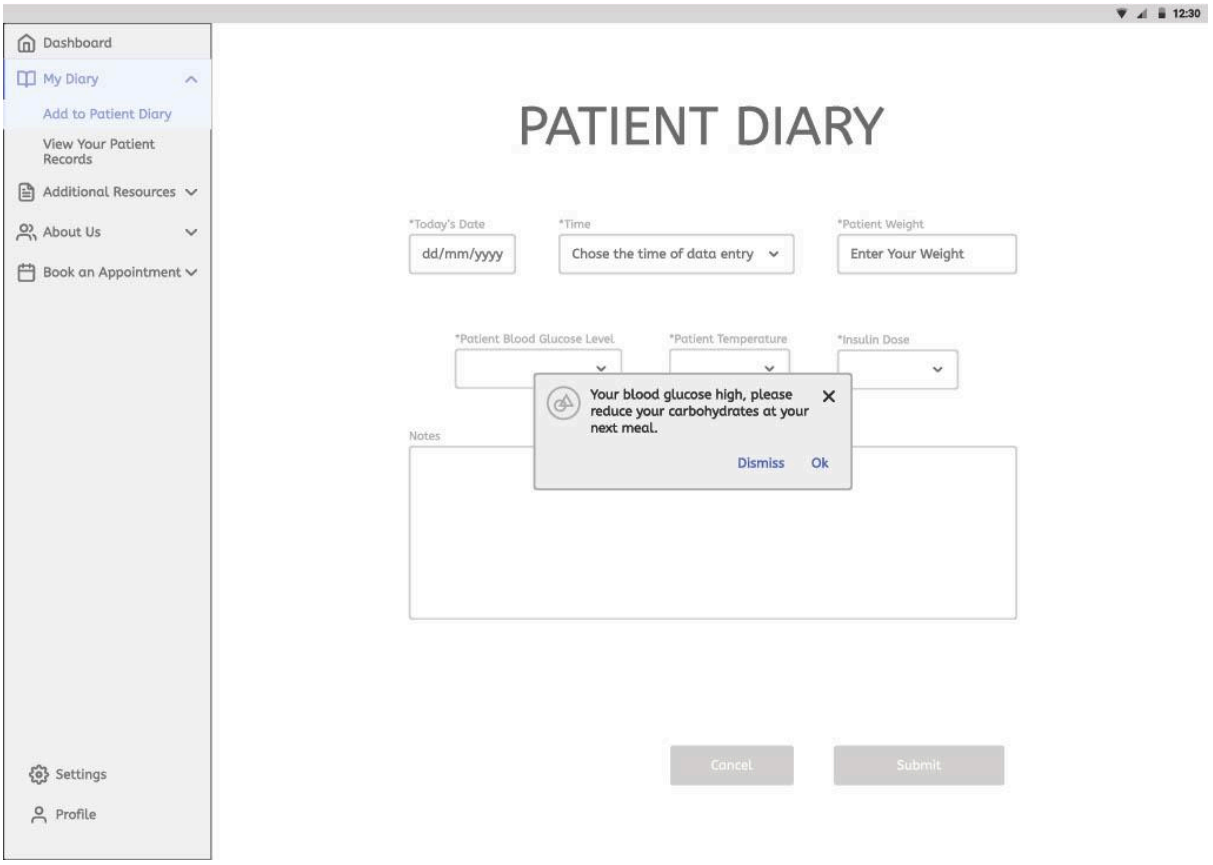

Figure 2.4 - Manage Patient Diary Wireframe 10

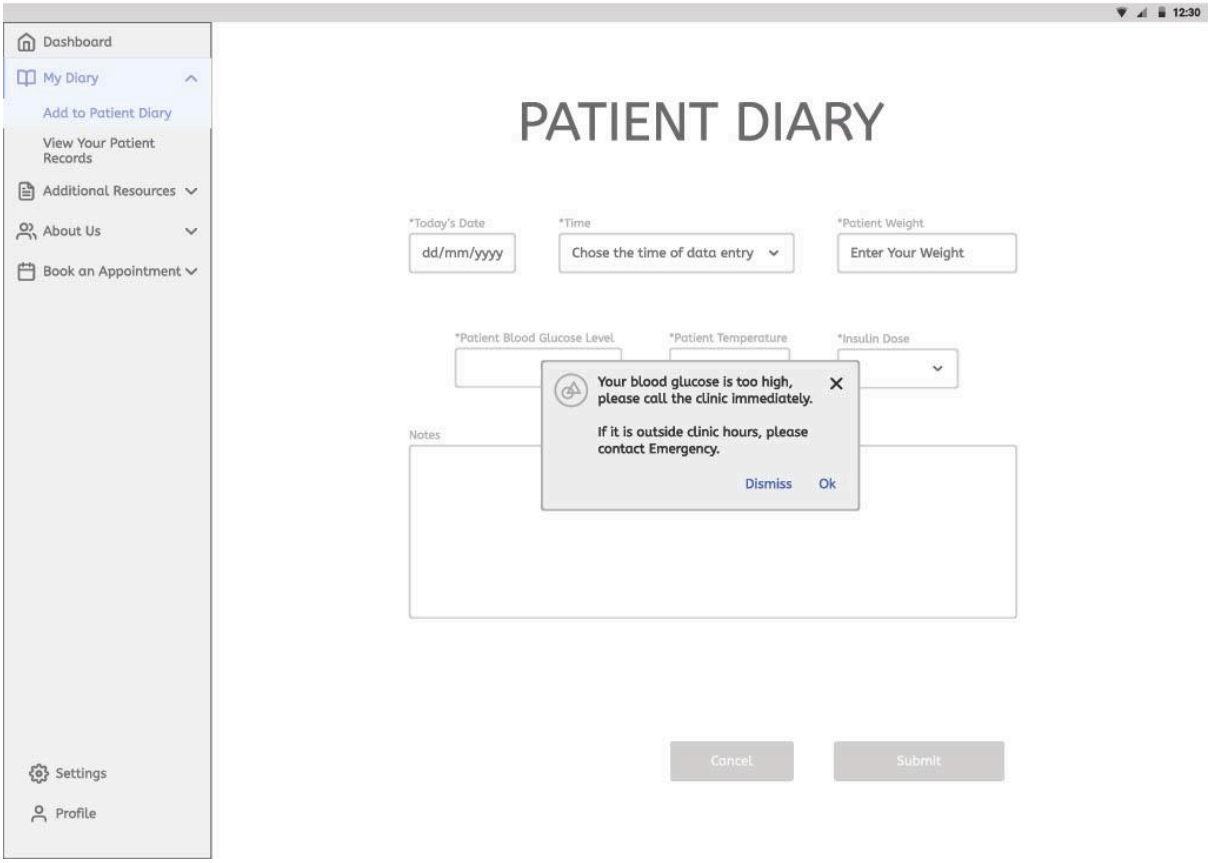

Figure 2.5 - Manage Patient Diary Wireframe 11

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A banner will appear based on their blood glucose level input after the user presses the 'Submit' button and enters their information into the system. The system provides the following feedback for different blood glucose ranges:

- Less than 3: Your blood glucose needs to be higher, please call the clinic immediately. If it is outside clinic hours, please contact Emergency.
- Between 3 and 5: Your blood glucose is stable.
- Between 5.1 and 7: Your blood glucose is high, please reduce your carbohydrates at your next meal.
- Greater than 7: Your blood glucose is too high, please call the clinic immediately. If it is outside clinic hours, please contact Emergency.

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Review Patient

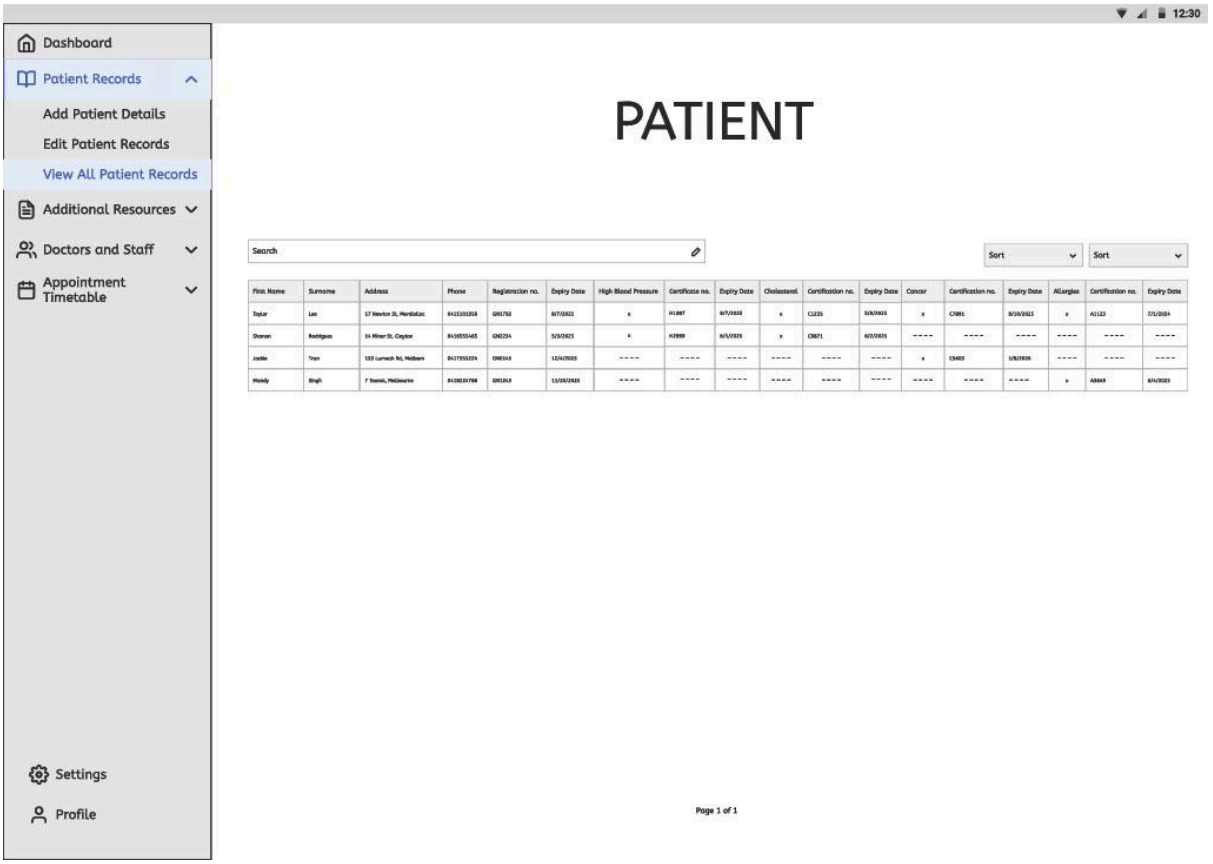

Figure 3.1 - Review Patient Wireframe 12

In Figure 3.1, the interface is designed for doctors to access and review their patients' records. This interface allows doctors to click on a patient's name to view details about their condition and track the progression of symptoms based on ongoing treatment. Similar to Figure 1.4, it includes a search bar and sorting functions to help quickly locate and organize patient information.

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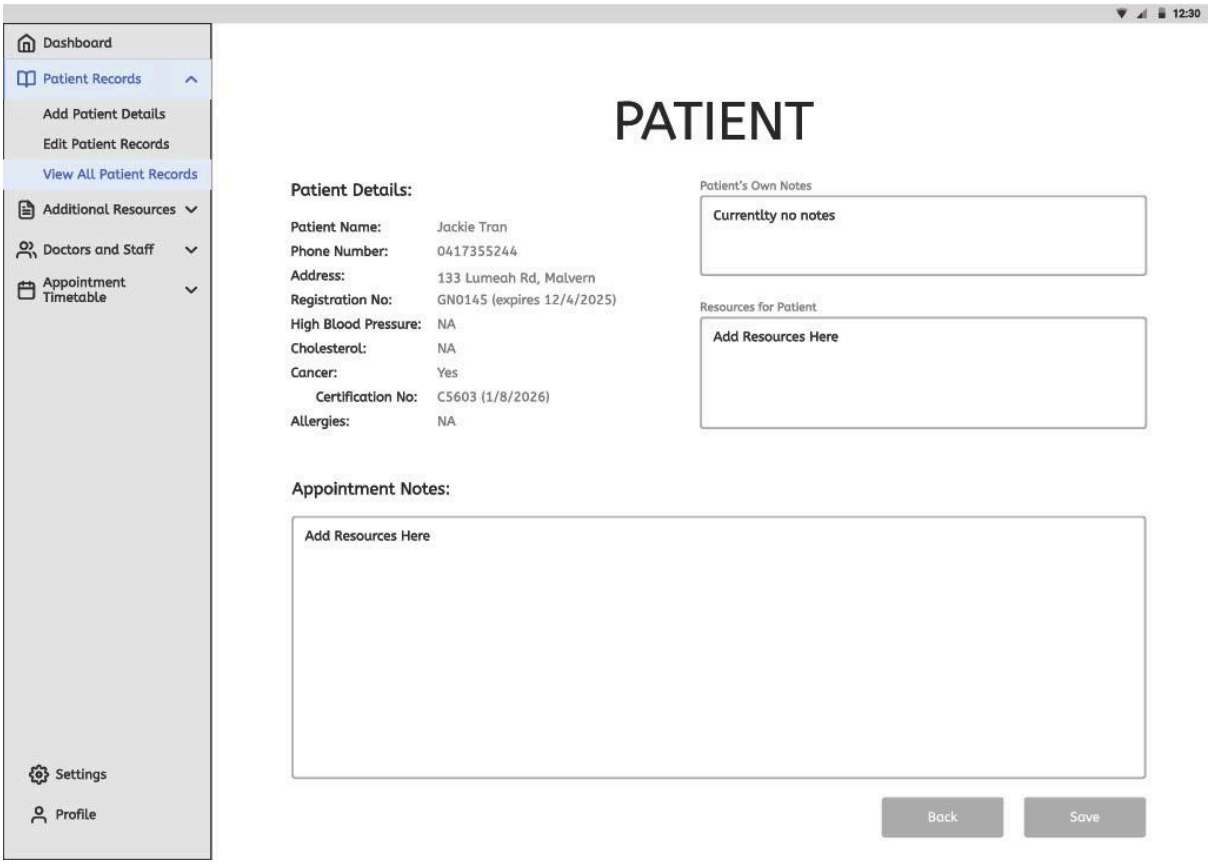

Figure 3.2 - Review Patient Wireframe 13

Once a doctor selects a patient from the table in Figure 3.1, the system navigates to a page displaying detailed information about the patient. Here, the doctor can view patient notes, medical history, and other relevant details. The doctor can also add resources for the patient and input appointment notes. After filling in the necessary fields and pressing the 'Save' button, a snack bar notification similar to the one in Figure 1.3 will appear, confirming the updates. Pressing the 'Back' button will return the doctor to the page shown in Figure 3.1