**Step 4: Project Description**

***Project Theme: Patient Management System***

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**For this milestone your group will provide a one-paragraph description of the proposed project, along with some information about who will use your software and why  
  
Project Description**

Our project is a Patient Management System being developed in collaboration with our hypothetical client, Dr. Amina Khalil, a practicing physician and co-owner of Horizon Family Clinic, a mid-sized outpatient healthcare facility. Dr. Khalil and her team currently manage patient information, appointments, and communication manually using spreadsheets, paper forms, and phone calls. This outdated system is prone to scheduling conflicts, misplaced records, and administrative delays, which can negatively impact patient care and clinic efficiency. Dr. Khalil expressed the need for a centralized digital platform that would allow her clinic to manage patient registrations, appointments, medical records, and internal staff communication seamlessly and securely.

The application will be a web-based system developed using **Next.js** for its scalability and performance, **TypeScript** for code reliability, and **Tailwind CSS** for rapid UI development. It will also utilize **Twilio** to send appointment confirmations and reminders via SMS to patients. The platform will support multiple user roles including admin, receptionist, doctor, and patient, each with tailored access to functionality. Patients will be able to register, view their medical history, and book or reschedule appointments, while doctors can view patient records and communicate with staff through a secure internal messaging system. The primary goal of this app is to improve clinic workflow, reduce human error, and enhance the patient experience by offering a responsive and intuitive healthcare management solution accessible via desktop and mobile browsers.