# TITLE PAGE

- **Team Name:** AUTOCODERS

- **Problem Statement Title-** Delayed Access to Medical Reports and Consultations

- **Theme-** Open Innovation – Digital Healthcare & HealthTech

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# MediQueue

## ❖ Proposed Solution

- ## Detailed explanation of the proposed solution
  - ➤ A secure digital healthcare platform combining medical report management and online doctor consultation
  - ➤ Patients upload and access medical reports digitally without standing in physical queues
  - ➤ Doctors review uploaded reports and provide consultations and e-prescriptions remotely

- ## How It Addresses the Problem
  - ➤ Eliminates long queues for report collection and doctor visits
  - ➤ Enables report-based online consultations, reducing unnecessary hospital travel
  - ➤ Centralized digital records prevent loss of reports and treatment delays
  - ➤ Reduces hospital overcrowding and patient waiting time

- ## Innovation & Uniqueness of the Solution
  - ➤ Integrated report storage and telemedicine in a single platform
  - ➤ Consultation and prescriptions directly linked to medical reports
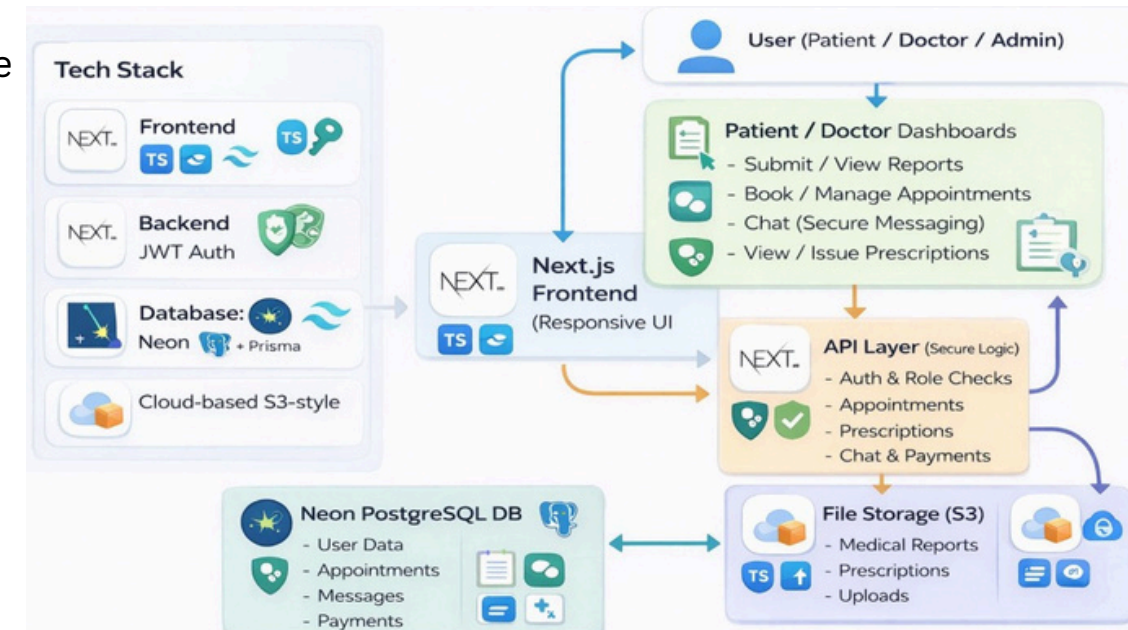  - ➤ Secure, scalable, and patient-centric digital healthcare approach

# TECHNICAL APPROACH

- ## Technologies to be used :
→ **Frontend:** Built using Next.js (App Router), TypeScript, and Tailwind CSS for a fast, responsive, and scalable user interface

→ **Backend:** Implemented with Next.js API routes and JWT-based role authentication for secure system access

→ **Database:** Uses Neon (serverless PostgreSQL) with Prisma ORM for structured and secure medical data management

→ **File Storage:** Medical reports stored in cloud-based S3-compatible storage with controlled and authorized access

- ## Methodology and process for implementation :

→ Users register and log in with role-based authentication

→ Patients securely upload medical reports to cloud storage

→ Doctors access and review reports through authorized dashboards

→ Consultations and prescriptions are managed digitally

→ All data is securely stored and retrievable when required

# FEASIBILITY AND VIABILITY

- **Analysis of the feasibility of the idea**

→ **Security Controls:** Encrypted data storage and role-based access mechanisms.
→ **System Reliability**: Backup servers and optimized performance handling.
→ **User Enablement:** Easy onboarding, guidance, and awareness to encourage adoption.

- **Potential challengesand risks**

➜ **Data Security:** Risk of unauthorized access to sensitive medical reports.
➜ **System Dependence:** Reliance on internet connectivity for
consultations.
➜ **User Adoption:** Hesitation among users unfamiliar with digital
healthcare systems.

- **Strategies for overcoming these challenges**

→ **Technical:** Developed using reliable web technologies for secure medical report management and online doctor consultations.
→ **Operational:** Simple and user-friendly interface for patients, doctors, and administrators.
→ **Economic:** Cost-efficient development with scalable cloud-based infrastructure.

# IMPACT AND BENEFITS

- **Potential impact on the target audience**

➤ Reduces patient waiting time and physical hospital visits

➤ Improves access to healthcare through online consultations

➤ Ensures easy, secure access to medical reports anytime, anywhere

➤ Enhances doctor efficiency by enabling remote report review

➤ Improves overall healthcare service delivery and coordination

- **Benefits of the Solution**

➤ Faster diagnosis and treatment through centralized digital records

➤ Improved patient experience with seamless consultations

➤ Reduced hospital overcrowding and operational burden

➤ Secure, reliable, and scalable digital healthcare system

➤ Cost-effective and time-saving for patients and healthcare providers

# Highlights of the Idea

- ## What is unique about your project?

➤ **Queue-Free Healthcare Model**
Unlike traditional platforms, MediQueue focuses on eliminating physical queues by digitizing report access before consultations.

➤ **Report-First Consultation Approach**
Doctors review medical reports prior to consultation, enabling faster, more accurate diagnosis and reducing repeat visits.

➤ **Unified Healthcare Workflow**
Medical reports, consultations, and e-prescriptions are integrated into a single seamless platform, reducing fragmentation.

➤ **Patient-Centric & Doctor-Friendly Design**
Designed for ease of use by patients while improving doctor efficiency through structured report access.

➤ **Reduces Hospital Overcrowding, Not Just Appointments**
Most platforms manage bookings — MediQueue directly tackles overcrowding and waiting time, a real-world healthcare pain point.