

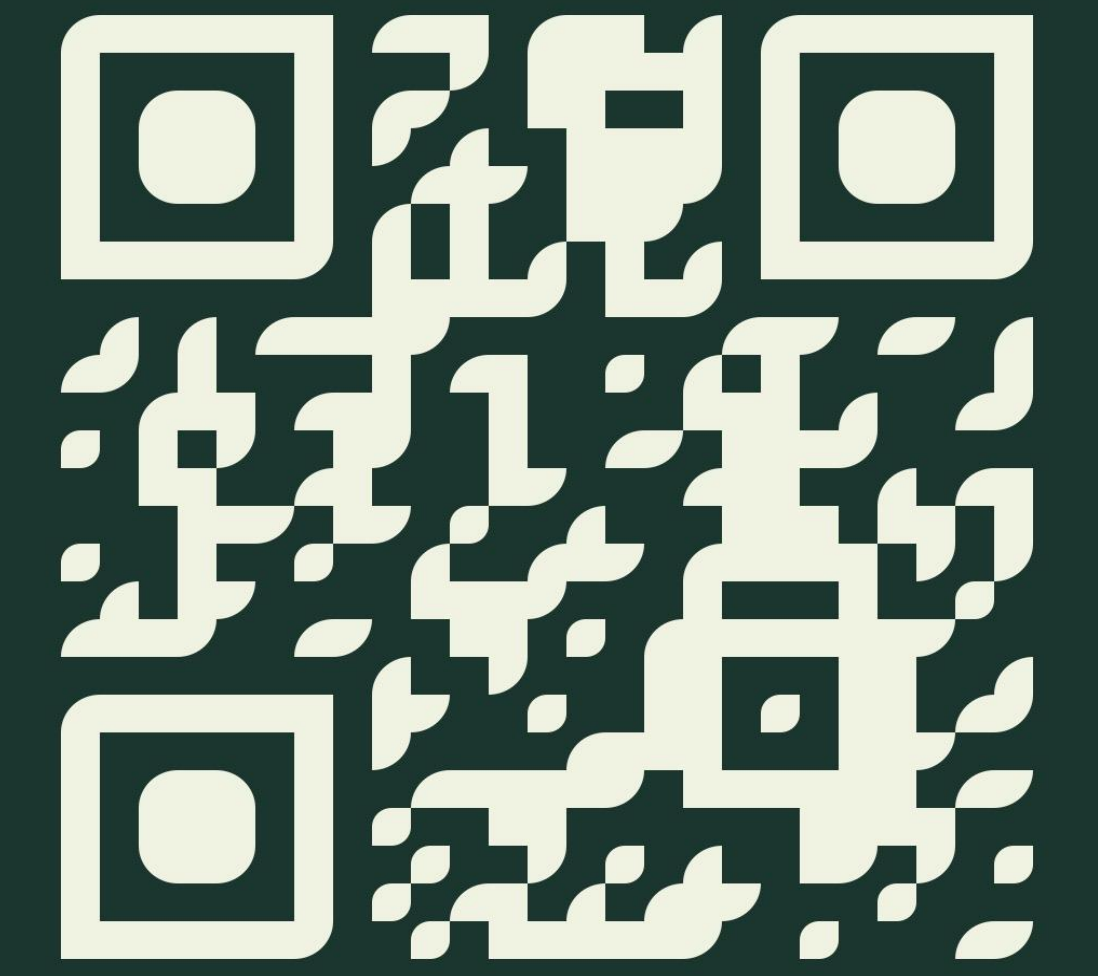


AWAFI: Iraq's First User-Centric Clinic Management System

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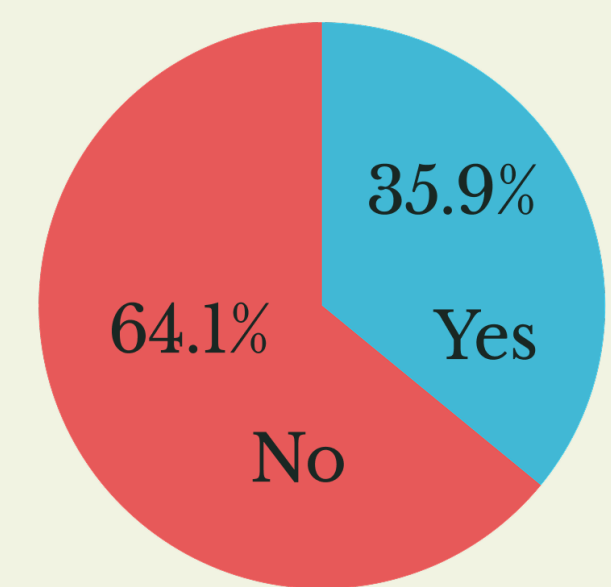
Background

→ Iraq's clinic sector remains largely undigitalized and uses analog alternatives that are prone to irreversible damage.
 → Existing solutions target internal clinic operations only — patients have no digital touchpoint.

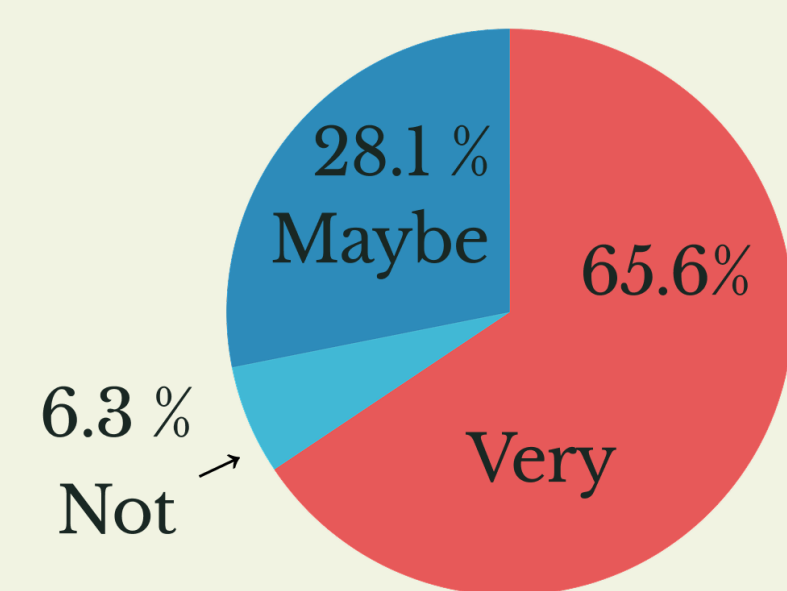
Awafi bridges this gap as a full-stack, patient-facing clinic management platform — allowing patients to book appointments, access their medical records, and receive prescriptions, while giving clinics tools to manage doctors, billing, and scheduling in one place.

Survey

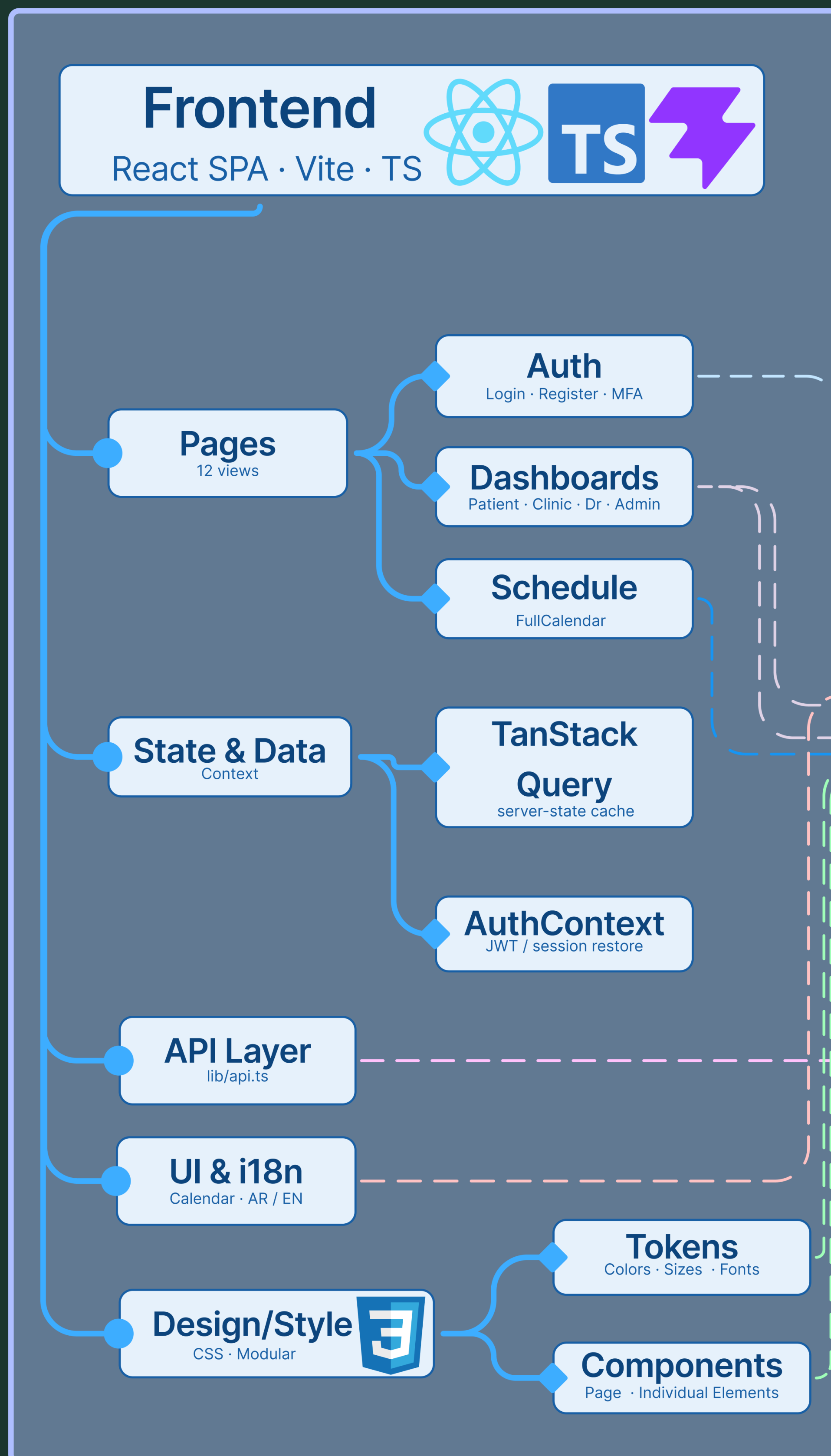
→ We asked 62 healthcare professionals about their needs, wants, and current restrictions



→ Do you use any software in your clinic?



→ How important it is to digitalize your clinic?



Doctor My Calendar
View all your appointments in calendar format

Patient
Find a Clinic, My Calendar, My Payments, My Medical Records, My Prescriptions, Schedule Appointment, View Requests, Clinic Calendar, View Patients, Billing, Add-on, Reminders, Reports

Clinic
Assign time slot, Libre Baskerville, Buttons, Inputs, Cards, Dropdowns, Users, Admin, For Patients

Security
JWT · MFA · RBAC

Role-Based Access Control
4 roles - Spring

MFA
Twilio · WhatsApp · SMS · Email

reCAPTCHA
Bot Protection · Service Usage

→ The system has a robust brute force and password spray protection by creating progressive delays when giving incorrect password multiple times, MFA, and reCAPTCHA

→ Bot Protection

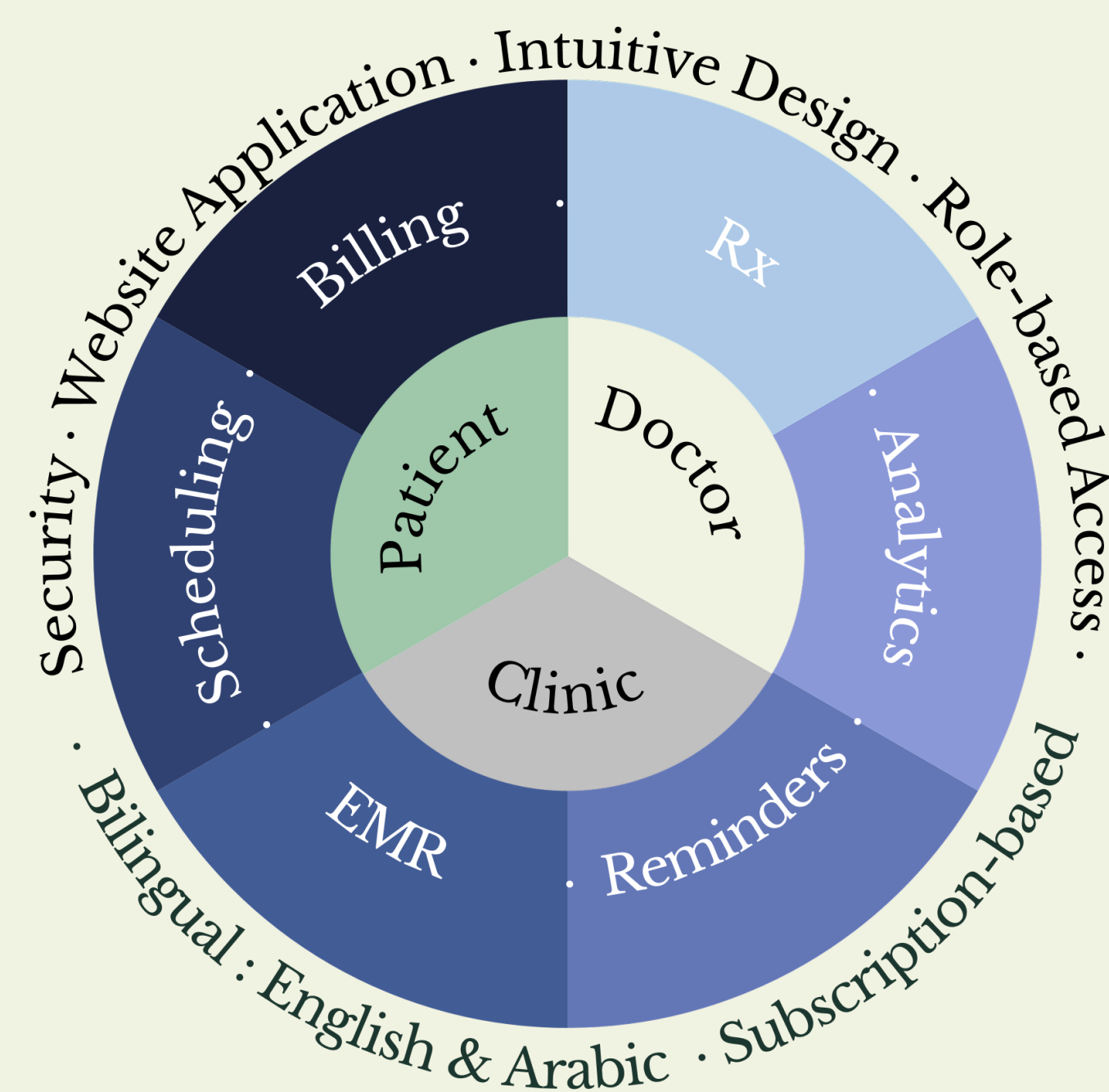
→ HTTPS enforcement
 → Encryption before API CREATE/UPDATE
 → Decryption after API READ

→ No requirements in Iraq
 → Strong access control: authentication, least privilege, encryption in transit and at rest, and user data rights.

End-to-End
Spring Security

GDPR & HIPAA
Compliance · Regulations

Awafi Overview



Testing

JUnit + Playwright

- Backend JUnit**
12 test classes
- Playwright E2E**
Frontend: 17 spec files
- Browsers**
Chromium · WebKit / iOS
- BotProtectionTest**
reCAPTCHA

Deployment

Docker · GKE · Actions

- Docker x2**
Back: Maven/JDK → JRE · Front: Node → nginx
- Kubernetes**
Google Kubernetes Engine Autopilot
- CI / CD**
GitHub Actions
- Monitoring**
Actuator · Website Health Endpoints

Database

PostgreSQL · Supabase

- Development**
H2 for local testing while in production
- Production**
Supabase · Hikari database connection pool · SSL encryption
- Flyway**
Version 1-Version 26 · 21 migrations

Backend

Spring Boot · Java

- Data Transfer Objects**
Frontend → Spring Boot → Database communication
- Controllers**
API endpoints
- Services**
19 business classes
- Repositories**
Database access layer