

Time & Resource Estimation for SmartClinic 2.0

Summary timeline:

Total planned work: **4.5 weeks**

Add contingency buffer (~20%): **+1 week** → **~5.5 weeks** total (round to **6 weeks** for planning).

UI: Week 1 (1.0 wk), some overlap into Week 2 for polish

Backend APIs: Weeks 2–3 (1.5 wk), overlaps with UI for integration

Database + models: Week 1 (0.5 wk) early schema + Week 2 integration

Notifications: Week 2 (0.5 wk) integration and provider setup

Testing & deployment: Weeks 3–4 (1.0 wk) + Week 5 staging & fixes

Buffer/contingency: Week 5–6

Team: 2 interns + 1 lead

Lead (1)

Overall design, API architecture, critical backend work, CI/CD, mentoring, final reviews, deployment.

Intern A (Frontend focus)

UI screens, patient booking flows, responsive layout, basic client-side validation, unit tests for components.

Intern B (Backend+DB focus)

Backend endpoints, DB models, notification hooks integration, basic tests, assist with deployment.

Tools & Technologies

Frontend: React

Backend: Java SpringBoot

Database: PostgreSQL

Notifications: Twilio (SMS) + SendGrid (email) or local equivalents

Dev tools: IntelliJ Community Edition, GitHub (repo + Actions),
Postman, Docker (recommended)

Design: Figma (for quick mockups)

Hosting: small cloud VPS / PaaS (Render/Heroku/DigitalOcean)

Monitoring & Logs: Sentry or simple logging + backups
