

## Time & Resource Estimation for SmartClinic 2.0

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### **Summary timeline:**

**Total planned work: 4.5 weeks**

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

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**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

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**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.

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## **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

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