⚡ Medical Order Management System

Fast-Track Development Timeline (70-80 Days)

🎯 Total Timeline: 11 Weeks (77 Days)

Aggressive development schedule with parallel workstreams

1 Setup & Architecture

Week 1 | Days 1-7

Week 1: Foundation Setup

Days 1-7 (Feb 7 - Feb 13)

- ☐ Design database schema (ERD) - patients, requests, users, suppliers, inventory **HIGH**
- ☐ Setup development environment (repos, hosting, CI/CD pipeline) **HIGH**

- ☐ Create UI/UX wireframes and design system (colors, components, layouts) — **HIGH**
- ☐ Setup project structure (frontend/backend folders, initial configs) — **MEDIUM**
- ☐ Initialize database and create initial tables — **HIGH**

📦 **Week 1 Deliverables:**

✓ Complete database schema document
✓ Development environment ready
✓ Design mockups approved
✓ Empty database with all tables created

2 Core Backend Development

Weeks 2-3 | Days 8-21

Week 2: Authentication & Base APIs

Days 8-14 (Feb 14 - Feb 20)

- ☐ Build authentication system (login, registration, JWT, password reset) — **HIGH**
- ☐ Implement role-based access control (hospital staff vs company staff) — **HIGH**

- ☐ Create user management APIs (CRUD operations) **MEDIUM**
- ☐ Build file upload system with cloud storage (AWS S3/Azure) **HIGH**
- ☐ Setup email notification service (SendGrid/Mailgun) **MEDIUM**

Week 3: Request & Supplier APIs

Days 15-21 (Feb 21 - Feb 27)

- ☐ Build request submission APIs (create, read, update, delete) **HIGH**
- ☐ Create request approval/rejection workflow APIs **HIGH**
- ☐ Build supplier management APIs (add, edit, list suppliers) **HIGH**
- ☐ Create inventory management APIs (stock tracking, availability check) **HIGH**
- ☐ Implement search and filter endpoints for all entities **MEDIUM**

🎯 MILESTONE: All backend APIs completed and tested

3 Frontend Development

Weeks 4-7 | Days 22-49

Week 4: SYSTEM 1 - Hospital Portal (Part 1)

Days 22-28 (Feb 28 - Mar 6)

☐	Build login/registration pages with form validation	**HIGH**
☐	Create hospital dashboard with stats and recent requests	**HIGH**
☐	Build navigation and routing system	**HIGH**
☐	Create "My Requests" list page with filters and search	**MEDIUM**
☐	Build request detail view page	**MEDIUM**

Week 5: SYSTEM 1 - Hospital Portal (Part 2)

Days 29-35 (Mar 7 - Mar 13)

☐	Build multi-step request submission form (patient, procedure, equipment)	**HIGH**
☐	Implement file upload UI with drag-and-drop	**HIGH**

- ☐ Create payment processing page with Stripe integration **HIGH**
- ☐ Build notification center and email notifications **MEDIUM**
- ☐ Implement calendar/scheduling interface **LOW**

🎯 **MILESTONE: SYSTEM 1 (Hospital Portal) fully functional**

Week 6: SYSTEM 2 - Company Portal (Part 1)

Days 36-42 (Mar 14 - Mar 20)

- ☐ Build company admin dashboard with request queue **HIGH**
- ☐ Create sidebar navigation and company layout **HIGH**
- ☐ Build request review interface with full details display **HIGH**
- ☐ Implement inventory checker UI with supplier info **HIGH**
- ☐ Create approval/rejection workflow with notes **HIGH**

Week 7: SYSTEM 2 - Company Portal (Part 2)

Days 43-49 (Mar 21 - Mar 27)

- ☐ Build supplier management interface (add, edit, list) — **HIGH**
- ☐ Create inventory management dashboard with stock levels — **HIGH**
- ☐ Build analytics/reports dashboard with charts — **MEDIUM**
- ☐ Implement bulk actions (approve/reject multiple requests) — **MEDIUM**
- ☐ Create staff assignment and communication features — **LOW**

🎯 **MILESTONE: Both systems fully built - ready for integration testing**

4 Integration & Testing

Weeks 8-9 | Days 50-63

Week 8: Integration Testing

Days 50-56 (Mar 28 - Apr 3)

- ☐ Test complete request workflow (submit → review → approve → pay) **HIGH**
- ☐ Test payment processing with test cards **HIGH**
- ☐ Verify email notifications trigger correctly **HIGH**
- ☐ Test file upload and document management **MEDIUM**
- ☐ Test inventory checking and supplier data flow **MEDIUM**
- ☐ Security testing (SQL injection, XSS, authentication bypass) **HIGH**

Week 9: Bug Fixes & Optimization

Days 57-63 (Apr 4 - Apr 10)

- ☐ Fix all critical bugs found in testing **HIGH**
- ☐ Optimize database queries and add indexes **MEDIUM**
- ☐ Performance testing and optimization (page load times) **MEDIUM**
- ☐ Mobile responsiveness testing and fixes **MEDIUM**
- ☐ Cross-browser testing (Chrome, Firefox, Safari, Edge) **LOW**

🎯 **MILESTONE: All bugs fixed - system stable and ready for deployment**

5 Deployment & Launch

Weeks 10-11 | Days 64-77

Week 10: Production Setup

Days 64-70 (Apr 11 - Apr 17)

☐	Setup production servers (AWS/Azure/GCP)	**HIGH**
☐	Configure production database with backups	**HIGH**
☐	Setup SSL certificates and domain configuration	**HIGH**
☐	Deploy application to production environment	**HIGH**
☐	Setup monitoring and logging systems	**MEDIUM**
☐	Create user documentation and help guides	**MEDIUM**

Week 11: Launch & Training

Days 71-77 (Apr 18 - Apr 24)

- ☐ Conduct user training sessions for hospital staff — **HIGH**
- ☐ Conduct user training sessions for company staff — **HIGH**
- ☐ Soft launch with 1-2 pilot hospitals — **HIGH**
- ☐ Monitor system during initial use and fix urgent issues — **HIGH**
- ☐ Full production launch to all hospitals — **HIGH**
- ☐ Setup support ticketing system and help desk — **MEDIUM**

🎉 **LAUNCH COMPLETE: System live and operational!**

📊 Visual Timeline Overview

Phase 1: Setup & Architecture	**Week 1**
Phase 2: Backend Development	**Weeks 2-3**
Phase 3: Frontend Development	**Weeks 4-7**
Phase 4: Testing & Bug Fixes	**Weeks 8-9**

Phase 5: Deployment & Launch

Weel
10-1

W1 W2 W3 W4 W5 W6 W7 W8 W9 W10 W11

🎯 Critical Success Factors

- ✓ Parallel frontend and backend work
- ✓ Weekly code reviews and testing
- ✓ Clear API contracts defined early
- ✓ Daily standups to catch blockers
- ✓ Minimal scope changes

📦 Major Deliverables

- ✓ Hospital request submission portal
- ✓ Company management dashboard
- ✓ Payment processing system
- ✓ Supplier & inventory management
- ✓ Analytics and reporting

⚠️ Risk Mitigation

- ✓ Build MVP features first
- ✓ Test integrations early
- ✓ Buffer time in Week 9 for fixes
- ✓ Soft launch before full rollout
- ✓ Have rollback plan ready

⚡ Fast-Track Tips:

- **Use pre-built components:** React/Vue component libraries

(Material-UI, Ant Design) to save time

- **Leverage templates:** Use admin dashboard templates for company portal
- **Parallel development:** Frontend and backend teams work simultaneously
- **Automated testing:** Write tests as you code to catch bugs early
- **Daily deployments:** Deploy to staging environment daily to catch integration issues
- **Focus on MVP:** Advanced features like analytics can be refined post-launch