UNIFIED HEALTHCARE RECORDS APPLICATION

Comprehensive Action Plan and Resource Summary

1. PROJECT RESOURCES

- Documentation PDF: Unified_Healthcare_Records_Kit.pdf

- Notion CSV: notion_project_tracker.csv

- Boilerplate Code: healthcare_app_boilerplate.zip

- GitHub README Template (in docs folder)

2. MODULES AND REQUIRED UPDATES

- Auth & Role Management: add MFA, password reset, refresh tokens

- Patient Records CRUD: add search filters, file upload validations

- Appointment Scheduler: implement notifications (email/SMS)

- Prescription Module: integrate drug interaction check API

- Voice Dictation AI: add language selection, command parsing

- Dashboard Analytics: add export to CSV, real time charts

- Lab Integration: parse HL7 / FHIR, auto tag reports

3. FEATURES TO DEVELOP (NEXT 2 MONTHS)

- Telemedicine video consultation module

- Mobile responsive redesign with Tailwind CSS

- Admin audit log viewer UI

- Bulk patient import via CSV

- Role based data export (PDF summaries)

4. TECHNOLOGY IMPROVEMENTS

- Migrate API layer to TypeScript for type safety

- Introduce GraphQL gateway for complex queries

- Implement Docker Compose for local dev stack

- Add ESLint and Prettier for code quality

- Set up GitHub Actions for CI tests and linting

- Consider PostgreSQL logical replication for scaling reads

5. PROCESS RECOMMENDATIONS

- Agile sprints of 2 weeks with sprint planning and retros

- Daily standup meetings (15 minutes)

- Code reviews with pull request templates

- Automated unit and integration tests (Jest, Supertest)

- Monthly security penetration test

- Quarterly backup restore drill

6. ACTION CHECKLIST

Week 1:

  * Finalize DB schema v1.1

  * Add MFA to auth flow

Week 2:

  * Implement email service (SES or SendGrid)

  * Wire UI to new auth endpoints

Week 3:

  * Build appointment reminder cron job

  * Integrate Twilio SMS

Week 4:

  * Prototype telemedicine module (WebRTC)

  * Internal demo and feedback

Week 5:

  * Add audit log viewer UI in admin dashboard

Week 6:

  * Security audit and fix findings

Week 7:

  * Load test with k6, optimize queries

Week 8:

  * Deploy v1.0 to production with blue green

7. OWNERSHIP MATRIX (RACI)

- Product Owner: defines requirements

- Tech Lead: architecture, code review

- Frontend Dev: React UI tasks

- Backend Dev: API and DB tasks

- DevOps: CI/CD, deployment, monitoring

- QA: test plans, regression tests

8. NEXT STEPS

- Import CSV into Notion as kanban board

- Push boilerplate code to GitHub repository

- Create environment files (.env) for dev and prod

- Schedule sprint 0 kickoff meeting