Advanced Real-Time Chat Application

12-Day Sprint Roadmap (NestJS + Next.js + Prisma + PostgreSQL)

Phase 1 (Days 1–3) – Foundation

- Day 1: Setup NestJS, Prisma, PostgreSQL. Implement schema and run migrations.
- Day 2: Authentication (JWT + Refresh Tokens + Guards + DTO validation). Setup Next.js auth pages.
- Day 3: Conversations system (create conversation, add participants, fetch user conversations).

Phase 2 (Days 4–6) – Messaging Core + Real-Time

- Day 4: Messaging CRUD + Cursor-based pagination + Soft delete logic.
- Day 5: WebSocket Gateway (Socket.io) integration with room-based messaging.
- Day 6: Typing indicator and online/offline presence tracking.

Phase 3 (Days 7–9) – Advanced Chat Features

- Day 7: Replies (threaded messages) and Reactions module implementation.
- Day 8: Seen / Delivered tracking with message_status logic and real-time updates.
- Day 9: File upload (Multer + Cloudinary) with validation and preview.

Phase 4 (Days 10–11) – Production Quality

- Day 10: Rate limiting, validation, global exception filters, query optimization.
- Day 11: Unit testing with Jest (Auth, Messages, Reactions) and basic integration tests.

Phase 5 (Day 12) – Polish & Deployment

- UI polish + Dark Mode implementation.
- Environment configuration and production setup.
- Deploy Backend (Railway) and Frontend (Vercel).
- Write professional README and architecture overview.