FlowdeX Project Requirements Document (Detailed Version)

1. Branding & Identity

- **Name:** FlowdeX
- **Reference Platform:** TradersCasa (replicate all functionality, workflows, and user experience as benchmark).
- **Logo:** FlowdeX (provided logo, blue/grey 'X').
- **Colors:** Dark background, white text, electric blue/grey accents.
- **Fonts:** Inter / Poppins / Space Grotesk.
- **Style:** Professional fintech-grade dashboard with sleek design, dark theme, and neon-accented highlights.

2. Core Features (Detailed)

2.1 Backtesting & Replay

- Upload CSV (OHLCV data) and run replay.
- API-driven historical & real-time data integration (TwelveData initial, Polygon/OANDA later).
- Replay candlesticks tick-by-tick, 1-min, 5-min, hourly, daily.
- Replay controls: Play, Pause, Speed (0.5x, 1x, 2x, 5x).
- Hide future data until replay reaches that point.
- Multi-instrument support: forex pairs, indices (GER30, NAS100, US30), crypto, stocks.
- Toggle chart types: candlestick, line, bar.
- Add multiple timeframes (M1, M5, H1, D1) for comparison.
- Option for user to save replay sessions for review.

2.2 Manual Trading

- Buy / Sell / Close buttons directly on chart replay.
- Track open trades in a live table: symbol, entry price, size, SL/TP, unrealized PnL.
- Real-time equity curve updates as trades are made.
- Closing trade logs entry/exit, PnL, duration.
- Trade execution with simulated spreads, slippage, and commissions (configurable).

2.3 Trading Journal

- Automatic logging of each trade (entry, exit, size, PnL, duration).
- Manual notes on trades (pop-up when entering or closing).
- Add strategy tags (Breakout, Pullback, etc.) and psychology tags (FOMO, Discipline).
- Upload chart screenshot to each trade.
- Journal table: sortable by date, symbol, strategy, PnL.
- Journal export: CSV, PDF.

2.4 Analytics Dashboard

- Equity curve chart.
- Performance stats: win rate, average win/loss, profit factor, drawdown.
- Trade distribution by time-of-day, weekday.
- Heatmaps showing performance by hour/day.
- Calendar of trades showing profit/loss by day.

- Tag analysis: performance by strategy/psychology tag.
- Comparison mode: compare two strategies or periods.

2.5 User Accounts & Subscriptions

- Signup, login, logout, password reset.
- Email verification & 2FA option.
- Subscription management via Stripe.
- Plans: Free (limited history, ads), Pro (full history, analytics, journal).
- Payment receipts via email.
- Admin dashboard for user/subscription management.

2.6 UI/UX

- Sidebar navigation: Replay, Journal, Analytics, Settings.
- Dashboard landing page: quick stats, last session, subscription status.
- Mobile responsive design.
- Consistent FlowdeX branding applied across all pages.
- Include onboarding guide or tooltips for new users.

3. Tech Stack

- **Frontend:** React with Lightweight Charts (TradingView style).
- **Backend:** Node.js (Express) or Python (FastAPI).
- **Database:** PostgreSQL for structured data.
- **Storage:** AWS S3 for CSV uploads, screenshots.
- **Payments:** Stripe for subscription management.
- **Hosting:** Vercel (frontend), Render/Heroku/AWS (backend).
- **Data APIs:** TwelveData initially, expand to Polygon or OANDA.
- **Version Control:** GitHub repo with documentation.

4. Milestones

Phase 1 – Core Replay & Trading
- Implement replay engine with CSV + TwelveData.
- Build manual trade interface.
- Export trade history.

Phase 2 – Journal & Analytics
- Build journal with notes, tags, screenshots.
- Implement analytics (equity curve, win rate, heatmaps).

Phase 3 – Accounts & Payments
- Add signup/login system.
- Integrate Stripe subscriptions.
- Admin dashboard.

Phase 4 – Final Polish & Deployment
- Branding refinements.
- Deploy to production.
- Documentation + handover.

5. Reference Platform

Developers must use **TradersCasa** as the full reference platform for functionality and UX. FlowdeX must replicate all its features, but with unique FlowdeX branding and design. No partial MVPs — the delivered product should function fully from launch, equivalent to TradersCasa in scope.