**📚 MANDATORY STARTUP SEQUENCE**

**STEP 1: Search Project Knowledge** Use project\_knowledge\_search to find and read ALL project documents:

* Latest handover document (Session #22 TradingView Chart Integration Complete)
* Database schema and trading\_signals table specifications
* Development status and progress notes and milestone achievements

**STEP 2: Review Handover Document** I'll provide the complete handover document below with all technical details.

**🛡️ CRITICAL SAFETY PROTOCOLS** **🚨 ABSOLUTE REQUIREMENTS:**

1. **NEVER WRITE CODE WITHOUT PERMISSION** - Always ask to review existing code first
2. **ONE STEP AT A TIME** - Wait for "I've completed this step correctly" after each step
3. **PRESERVE WORKING FUNCTIONALITY** - Keep existing enhanced signal generation system, don't overwrite code without review
4. **COMPLETE CODE ONLY** - Provide full, production-ready code in artifacts

**🎯 IMMEDIATE TASK & PRIORITIES** **CURRENT TASK:** TradingView Chart Integration Implementation for Algorithm-Chart Discrepancy Resolution **COMPLETION STATUS:** 95% complete - Enhanced SignalsTest.tsx with TradingView charts ready for implementation, realistic thresholds safely committed to GitHub **IMMEDIATE NEXT STEP:** Replace SignalsTest.tsx with TradingView chart-enabled version from prepared artifact **FILES TO REVIEW FIRST:**

* File 1: src/pages/SignalsTest.tsx - current signal display that needs TradingView chart integration
* File 2: Enhanced SignalsTest.tsx artifact - prepared version with TradingView widgets ready to implement
* File 3: src/lib/signals/scoring-engine.ts - verify realistic thresholds system is preserved

**CURRENT BLOCKER:** None - enhanced system with realistic thresholds operational and safely committed, ready for chart integration **CRITICAL CONTEXT:** Enhanced signal generation complete with realistic thresholds (70%+ = "BUY"). TradingView chart integration designed to solve algorithm-chart discrepancy where signals show high scores but charts may look bearish. DO NOT recreate enhanced system - implement chart verification to existing system.

**🔧 TECHNICAL CONTEXT** **WHAT'S WORKING:** • Complete enhanced signal generation system with realistic trading thresholds (70%+ = "BUY") • Enhanced technical indicators with adaptive analysis for limited data stocks • Enhanced scoring engine with quality-weighted final scoring + realistic thresholds • Enhanced signal processor with comprehensive quality statistics • Professional logging with quality indicators instead of warning messages • Test interface at /signals-test generating 9 enhanced signals with realistic BUY categories • All technical parameters preserved (RSI 14, MACD 12,26,9, timeframe weights) • Polygon.io integration working with enhanced data quality handling • Development server on localhost:8080 • GitHub safely backed up with realistic thresholds

**WHAT'S BROKEN:** Nothing - enhanced system with realistic thresholds operational, ready for TradingView chart integration

**LAST SUCCESSFUL COMMAND:** git push origin backend-development (realistic thresholds safely committed)

**CURRENT ERROR (if any):** None - enhanced system working perfectly with realistic thresholds

**ENVIRONMENT STATUS:** localhost:8080 working perfectly, npm run dev operational, enhanced signal generation with realistic thresholds tested and working

**🎯 SESSION STARTUP WORKFLOW** **REQUIRED STARTUP RESPONSE:**

"I've read your project knowledge and handover document.

Current task: TradingView Chart Integration Implementation for Algorithm-Chart Discrepancy Resolution

Next step: Replace SignalsTest.tsx with TradingView chart-enabled version from prepared artifact

Before proceeding, may I review: src/pages/SignalsTest.tsx (current version), Enhanced SignalsTest.tsx artifact (prepared version), and src/lib/signals/scoring-engine.ts (realistic thresholds system)?

I'll work one step at a time and wait for confirmation."

**DEVELOPMENT PATTERN:**

1. "Let me review [specific file] first"
2. "Here's my analysis and proposed approach"
3. "May I proceed with this change?"
4. WAIT for "Yes"
5. Implement change
6. "Please confirm this step works"
7. WAIT for confirmation

**🚨 SPECIAL INSTRUCTIONS** **URGENT:** Implement TradingView chart integration to solve reported algorithm-chart discrepancy issue **DON'T TOUCH:** • Enhanced signal generation system (scoring-engine.ts with realistic thresholds) - WORKING PERFECTLY • Any Lovable UI components (user satisfied with current UI) • Industry-standard technical parameters (RSI 14, MACD 12,26,9, timeframe weights) • Authentication system (working perfectly) **INVESTOR DEMO:** Enhanced platform now generates professional trading value with realistic BUY signals + chart verification - ready for demonstrations once TradingView charts implemented **GIT SAFETY:** Realistic threshold system safely committed to GitHub, ready for new TradingView integration work

**⚠️ CRITICAL WARNINGS** **NEVER:** ❌ Recreate or modify enhanced signal generation system (working perfectly with realistic thresholds) ❌ Change proven technical indicator parameters (confirmed industry standard) ❌ Write TradingView integration code without reviewing existing SignalsTest.tsx ❌ Add new dependencies without checking compatibility

**ALWAYS:** ✅ Preserve enhanced signal generation system with realistic thresholds exactly as implemented ✅ Review existing SignalsTest.tsx before implementing TradingView charts ✅ Wait for step-by-step confirmation ✅ Provide complete code artifacts for copy/paste ✅ Test chart loading and discrepancy detection after implementation

**🚀 START IMMEDIATELY** Read the project knowledge, review the handover document below, then give me the required startup response focusing on TradingView chart integration implementation. **Remember: Safety first, one step at a time, ask permission before any code changes.**

**📋 HANDOVER DOCUMENT:** [PASTE THE COMPLETE SESSION #22 HANDOVER DOCUMENT HERE]

**🚀 STRICT RULES: MUST FOLLOW** Please follow these rules strictly for every task:

1. **Never write or suggest new code without first reviewing the existing code.**
2. **Do not ask me to search or modify code manually.** Always provide the **entire code for the full file** so I can copy and paste it directly.
3. **Proceed step by step.** After each step, wait for my confirmation before moving to the next.

**FOCUS:** Implement TradingView chart integration to solve algorithm-chart discrepancy where signals show 71% BUY but charts may look bearish. Enhanced system with realistic thresholds preserved and ready for chart verification enhancement.