**What is implemented so far**

Regime detection

Markov forecast + ML to forecast regimes

Stocks indicators and price action combined  
combined df of stock and regime of nifty50 to know how stocks performed with nifty50, also has nifty50 close price  
now I have this final df with all cols of stock, nifty50 regimes, niftyclose price, and forecasted regime of nifty50  
so from this what can de derive

**✅ What’s Next?**

1. **📊 Map Best Strategies to Market Regimes**
   * Choose the **best trading strategy** based on the **current detected regime**.
   * Example:
     + **Bullish Market** → Trend-following (Moving Averages, Breakouts)
     + **Bearish Market** → Short-selling, Buying Put Options
     + **High Volatility Market** → Options Trading (Straddles, Strangles)
     + **Mean Reversion Market** → Bollinger Bands, RSI Pullbacks
   * You already have a **detailed mapping** in your document.
2. **📈 Combine Predictions with Market Regime**
   * **How much should you rely on Markov Chain prediction vs. current market regime?**
   * **Hybrid Approach:**
     + If **Markov predicts the same as the current regime**, trade with **full confidence**.
     + If **Markov prediction contradicts the current regime**, reduce position size or wait for confirmation.
   * Example:
     + **Current Regime: Bullish** | **Markov Prediction: Bearish Tomorrow**  
       → Trade cautiously (Use hedges or wait for confirmation).
     + **Current Regime: Bearish** | **Markov Prediction: Bearish Tomorrow**  
       → Trade aggressively (Short sell, Buy Put Options).
3. **📌 Develop Execution Plan**
   * Set **entry & exit criteria** for each strategy.
   * Apply **risk management (stop-loss, trailing SL, profit booking).**
   * Example Execution Plan:
     + **Trend Following (Bullish Market)**
       - Buy when **price pulls back to 50EMA** and **MACD is positive**.
       - Exit at **previous resistance** or **Trailing Stop-loss**.
     + **Short Selling (Bearish Market)**
       - Short when **price rallies into resistance** and **RSI < 50**.
       - Exit when price drops **5-10% or MACD shows divergence**.
4. **📉 Backtest & Optimize Strategies**
   * Test **each strategy** on **historical data**.
   * Evaluate:
     + **Win Rate (%)**
     + **Risk-Reward Ratio**
     + **Max Drawdown**
     + **Profit Factor**
   * Optimize parameters (e.g., moving average lengths, stop-loss levels).
5. **🛠 Automate Execution (API Integration)**
   * Automate trade execution with **Zerodha Kite API / Interactive Brokers**.
   * Use a **dashboard** to monitor:
     + Live Market Regime
     + Next-Day Prediction
     + Suggested Trading Strategy
     + Real-time P&L