

30-Day Study Plan for Algorithmic Trading (Scalping, Intraday, Swing)

Day	Topic	Done
Day 1	Introduction to Financial Markets, Equity, Derivatives, Commodities.	■
Day 2	Types of trading: Scalping, Intraday, Swing, Position. Pros & Cons.	■
Day 3	Trading platforms overview (Groww, Zerodha, Interactive Brokers). Orders: Market, Limit, Stop-Loss, Trailing Stop.	■
Day 4	Market microstructure: Bid-ask spread, liquidity, slippage.	■
Day 5	Candlestick basics: Doji, Hammer, Engulfing. Reading price action.	■
Day 6	Chart patterns: Support, Resistance, Trendlines, Triangles.	■
Day 7	Technical indicators I: Moving Averages (SMA, EMA), RSI, MACD.	■
Day 8	Technical indicators II: Bollinger Bands, VWAP, ATR, Volume.	■
Day 9	Scalping strategies: 1-min, 5-min charts, high-volume stocks.	■
Day 10	Intraday strategies: Gap trading, VWAP strategy, breakout strategy.	■
Day 11	Swing trading basics: Timeframes, stock selection, trend following.	■
Day 12	Risk management I: Position sizing, stop-loss, risk-reward ratio.	■
Day 13	Risk management II: Portfolio allocation, diversification, max drawdown.	■
Day 14	Trading psychology: Avoiding FOMO, discipline, journaling.	■
Day 15	Intro to algo trading: Python, APIs, automation concepts.	■
Day 16	Python libraries: pandas, numpy, matplotlib, TA-Lib.	■
Day 17	Fetching data: Yahoo Finance, Alpha Vantage, Groww API (if available).	■
Day 18	Backtesting basics: Historical data, vectorized backtesting.	■
Day 19	Scalping bot design: Entry/exit rules, latency considerations.	■
Day 20	Intraday bot design: Indicators-based signals, backtest results.	■
Day 21	Swing bot design: Trend-following strategies with moving averages.	■
Day 22	Paper trading setup: Testing without real money.	■
Day 23	Risk management automation: Stop-loss, take-profit, trailing stop.	■
Day 24	Building trading dashboards in Python (matplotlib/plotly).	■
Day 25	Algorithm evaluation: Sharpe ratio, Sortino ratio, win rate.	■
Day 26	Optimization: Hyperparameter tuning of strategies.	■
Day 27	Connecting with broker APIs (Groww/Zerodha).	■
Day 28	Deployment: Running strategies live with safeguards.	■
Day 29	Case studies: Famous traders, successful algo strategies.	■
Day 30	Final project: Design your own scalping/intraday/swing strategy, backtest & paper trade.	■