Requirement Document

* Finbert
* Python
* Library
  + Pandas
  + Numpy
  + Pytorch
  + Matplotlib
  + Plotly
* Historical data for testing:
  + Free: Yahoo Finance, Alpha Vantage, Quandl.
  + Paid: Polygon.io, Bloomberg, Tiingo.
* Core Tools & Libraries
  + Backtesting frameworks:
    - backtrader (popular and flexible).
    - zipline (Quantopian’s framework, more complex).
    - vectorbt (fast, NumPy-based).
  + Trading APIs:
    - Stock/ETF: Alpaca, Interactive Brokers (ib\_insync).
    - Crypto: Binance, Coinbase Pro.
    - Forex: Oanda, FXCM.
* Machine learning (optional):
  + scikit-learn, statsmodels, tensorflow / pytorch.
* Existing LLM
  + Mistral : Small and efficient
  + Finbert: Specialised for finance and trained on sentiment analysis
  + Llama : Plenty of documentation and powerful.
* Infrastructure
  + Broker API credentials (demo and real accounts).
  + Cloud or server (e.g., AWS, DigitalOcean, or a Raspberry Pi) to run bot 24/7.
  + Logging & monitoring (e.g., logging, discord/telegram alerts, dashboards).
  + Database (e.g., SQLite, PostgreSQL) to store signals, trades, and performance.
* Sentiment Analysis APIs
  + <https://tradestie.com/apps/reddit/api/>
  + <https://housestockwatcher.com/api>
  + <https://stocknewsapi.com/?ref=apilist.fun>
  + <https://www.alphavantage.co/?ref=apilist.fun>