

Requirements Analysis

To access the requirements, one normally would use a stakeholder analysis.

Since this project is more like a research project, it is not really intended to be used as a product outside of Chainsulting. Thus, the primary and only stakeholder is one of the CEO's of Chainsulting, Yannik Heinze, who is keen on finding out about the effects of sentiment on trading performance.

In consultation with Mr. Heinze, the requirements for this project have been set beforehand.

The requirements are structured as functional and non-functional with three categories:

- *Must-Have-Requirements* are essential for the system to work at all.
- *Should-Have-Requirements* are improving the system, but are not necessary for the system to run.
- *Optional Requirements* can improve the final product, but not at all necessary.

Functional Requirements

Must-Have

Nr.	Description
[FR 10]	The system delivers real-time tweets from Twitter
[FR 20]	The system delivers a sentiment for each tweet
[FR 30]	The system builds trade-signals based on sentiment
[FR 40]	The system trades based on these signals

Should-Have

Nr.	Description
[FR 50]	The system filters tweets
[FR 60]	The system visualises metrics of tweets, sentiment and trades
[FR 70]	The system stores the data in a database
[FR 80]	The system can run in the background

Optional

Nr.	Description
[FR 90]	The system uses different trading strategies at the same time
[FR 100]	The system uses Machine-Learning to improve the strategy

Non-Functional Requirements

Must-Have

Nr.	Description
[NFR 10]	The project must contain research on used cryptocurrencies and social-media platform
[NFR 20]	The project will be published open-sourced on GitHub

Steps for Development Phase

From the above requirements analysis, a flow diagram was derived to simplify and visualise the order of steps that are needed to be taken in the development phase. This helped to split the available time into phases for each part in this diagram. It was basically the key to time-management of this project. The orange bigger box are the parent steps, in which the smaller steps take place.

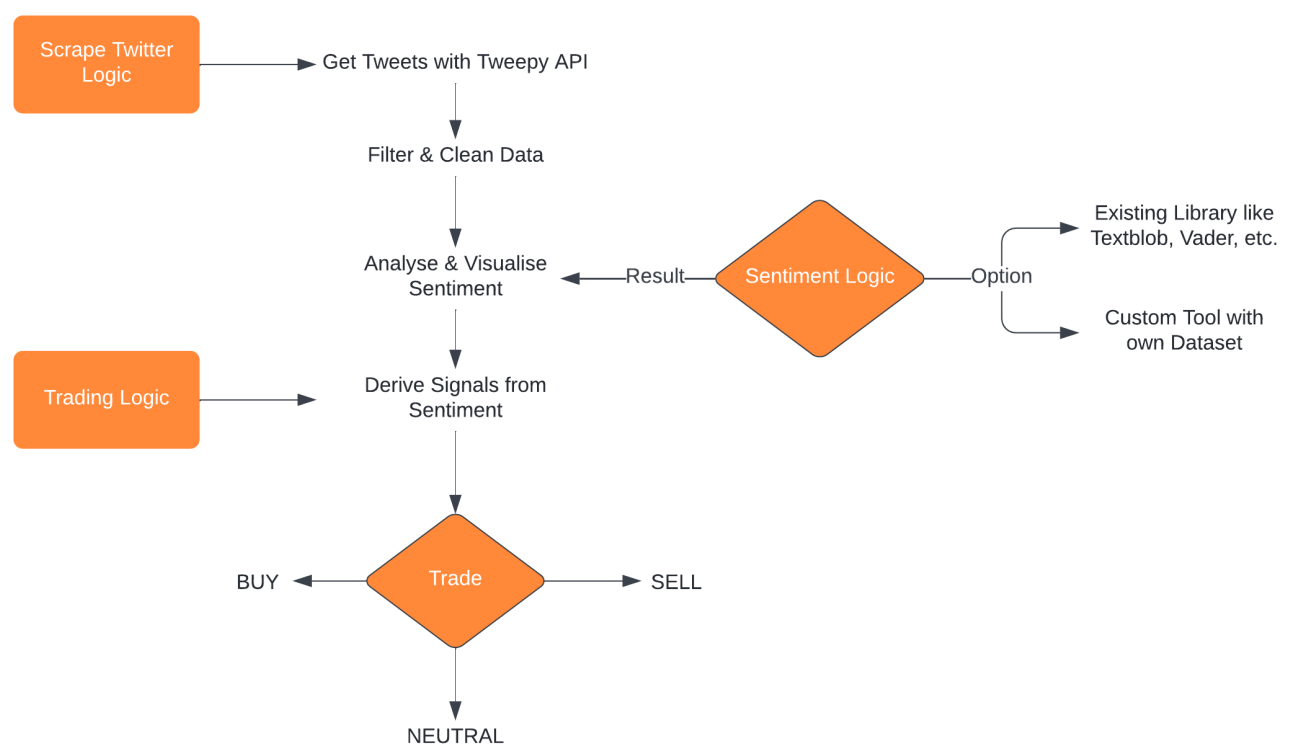


Figure 7: Flow Diagram for Development Phase

