# MoSCoW

Must have:

* The ability to collect live data from the GDAX API endpoint.
* The ability to make predictions of the next value based on the data collected with “**G**ood **O**ld-**F**ashioned **A**rtificial **I**ntelligence” predictions.
* The ability to collect historic data from the GDAX API to decrease the time required to collect enough data to make above predictions.
* The ability to store trading data so that minimal data collection is required at runtime.

Should have:

* The ability to detect gaps in held data and fill as follows:
  + Attempt to re-collect prices (in the event of a failed API call when storing data).
  + Fill with the average price of data either side of the gap.
* The ability to automatically trade based on predictions.
* The ability to make predictions of the next value based on the data collected with neural network predictions.
* The ability to display neural network accuracy;
  + And allow the user to manually retrain the neural network.

Could have:

* The ability to automatically retrain the neural network based on falling accuracy as training data becomes more historic.
* The ability to allow the user to input investment protection levels:
  + The ability to set single withdrawal of X when investment value reaches Y (i.e. withdraw initial investment when a large enough profit is made).
  + The ability to set regular withdrawals of X when investment value reaches Y (i.e. withdraw profit each time it reaches a large enough value).
  + The ability to halt trading if certain conditions are met (i.e. a loss threshold is reached within a certain time period);
    - Halting trading converts investment to base currency (USD).
    - The ability to set the base currency to another traded currency (i.e. the user’s “most trusted” cryptocurrency).

Would have:

* The ability to collect data from multiple sources and consider how accurate GDAX prices are.
* The ability to trade concurrently on multiple exchanges based on both likely growth and prices local to each exchange.
  + Due to the usual delay of cryptocurrency arriving at exchange wallets it would be unlikely that the system would swap value between exchanges. A value would need to be deposited into each exchange and traded based on global prices rather than the exchange’s price.