Problem Statement:
Using stock market data, can we reliably predict whether to buy or sell stocks in order to turn a profit of at least 50% over the course of a week, based on the opening price of a given day?

Context:
While this project is not breaking any new ground in machine learning, it is useful for a stockholder to be able to predict trends in their investments in order to turn a profit and avoid sinking money into something that will not net a gain.

Criteria:
The aim of this project is to be able to predict the closing price of a stock given the opening price, and in doing so recommend whether to buy or sell at the beginning of the day or the end to increase profits. In this case, I am aiming for a model that can perform well enough to net a stockholder a 50% increase in capital based on when it recommends to buy/sell and by how much.

Scope:
While the methods I'll be using to make stock market predictions can be applied to stocks in general, I will only be focusing on one.

Constraints:
The given dataset does not have continuous data. Rather, it has values for given points within the day, such as the high, low, mid, and ending prices. This may limit which machine learning models I can select for predicting on the data.

Stakeholders:
Stock market investors that want to be able to turn a profit with as little risk as possible.

Deliverables:
The client will be receiving code for the machine learning model.

Data Sources:
The data being used for this project is from iFinex Inc and is available on quandl.com (link below).

https://www.quandl.com/data/BITFINEX/IOTUSD-IOT-USD-Exchange-Rate