**Mined & Keystone System Architecture Blueprint**

*Identity (mission) 1.0 (~ 2017/07/31)*

Quantitative approach to robo-advisory systems - products namely:

1. Safer: RMS (risk management system) tool,
2. Defacto: scoring system based on volume, buy, and sell data from investing agents,
3. MapIt: market signal and market overview of Korea

**Architecture design & tools:**

Server: Ubuntu (or any Linux based server) + Apache,

Database: MongoDB (NoSQL – document based/schema-less database management system),

Web-service: Flask + Python (backend), Bootstrap + jQuery (frontend),

(web-design: CSS, LESS, SASS),

RESTful API: Flask + Python

Version Control: Git + Github

**Data Collection & Data Storage:**

Necessary data: KOSPI & KOSDAQ {date, open, high, low, close, volume, <agent> buy, <agent> sell}

*[data key values/column names are referenced in curly braces ({}), and agents – individual, foreigners, institutions etc. - are referenced as a whole, <agent>]*

Data source: Kiwoom OpenAPI

MongoDB

(command parameters/arguments start with --, double slashes)

Initializing commands:

1. <https://docs.mongodb.com/manual/tutorial/install-mongodb-on-ubuntu/>:

set up MongoDB on server

1. <https://ianlondon.github.io/blog/mongodb-auth/>

add user to MongoDB for remote access