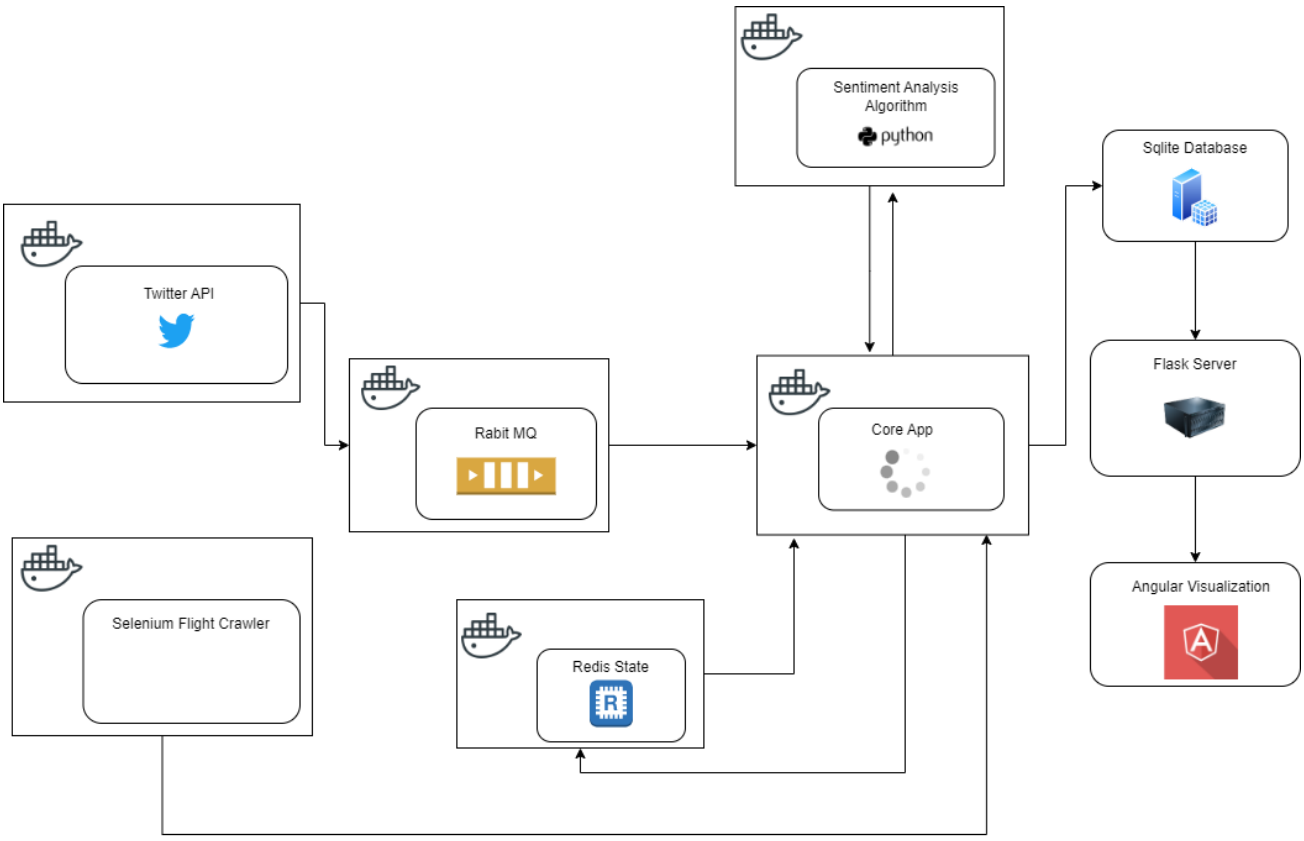
SOA – Final project

The idea: an app that will try to predict the price of a flight ticket to London based on the tweets posted by people.

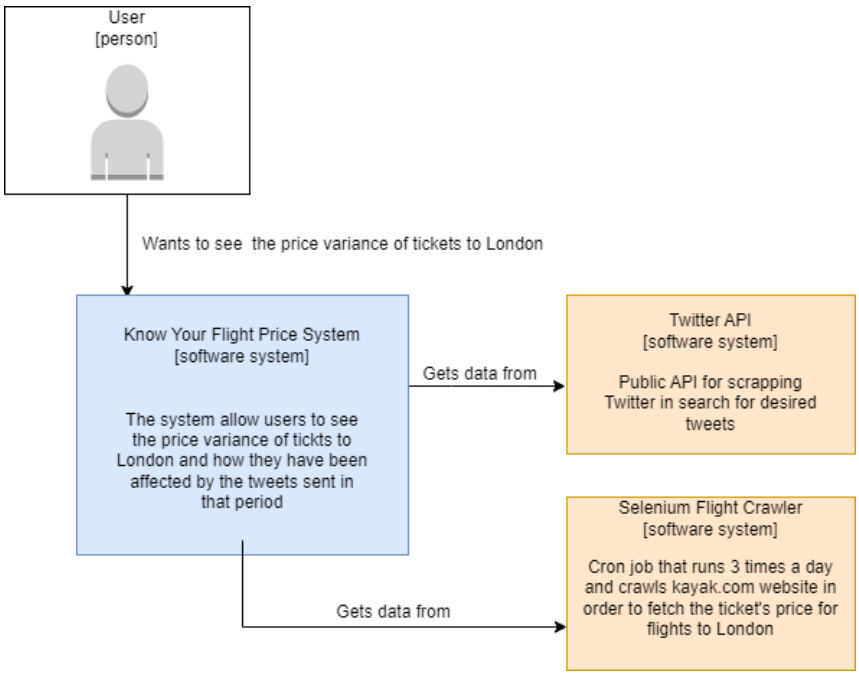
How :

- We have a script that gets real-time Tweets using and external *Twitter API* - we set the location to be from London and to search after different keywords that are in the jargon of politics
- The tweets go into *RabbitMQ* message queue and will be sent to **Core app**(that is subscribed to this queue) every time a new tweet arrives
- The **Core app** sents the tweet to python AI algorithm *sentiment analysis classfier* - it will classify the tweet as positive or negative and will give back the result
- Next, the **Core app** will take the values from *Redis* - I used redis for state management - it is more like a key-value storage. It containes the total number of tweets, the tweets that are positive, the cost average of prices for tickets to London from last week and the procent with which this week's price will increase or decrease
- Next, the values from the computations will be stored into another *Sqlite* database, from where a *Flask server* will take them. We will visualize them in the Front end with an *Angular web application* that uses *REST* endpoints and makes *HTTP* requests

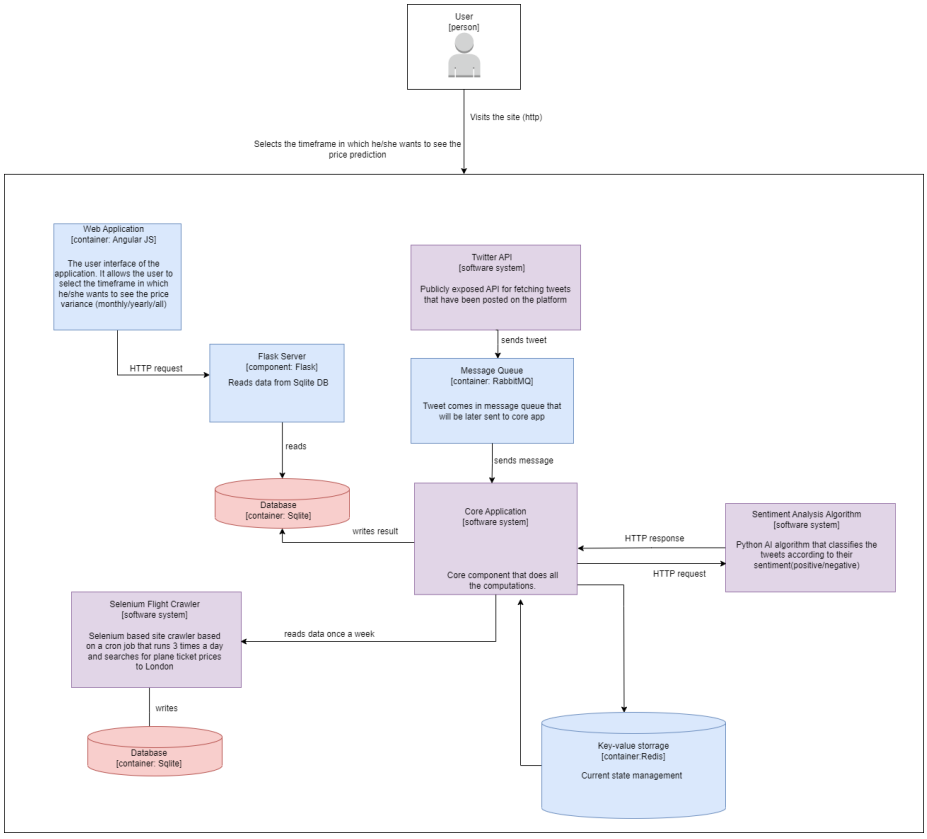


C4 models

L1 – System Context Diagram



L2 – Container Diagram



L3 – Component Diagram