

# Bachelor Project

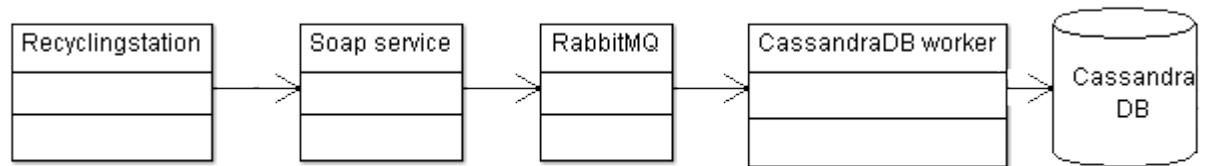
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## 1 Goal

The goal of this project is to design and build a system that collects transactions from recyclingstations and puts them in a database. Also to build a website which can display data that would be relevant for a user of the system.

## 2 Design



This design is built in such way that it can be scaled and later be replaced or work in conjunction with something written a completely different programming language. This is why there is a queue in between the soapservice and the database worker.

## 3 Interfaces

### 3.1 soap

Because of this interfaces or kept generic or text based (encoded in UTF-8). To deliver something to the soap interface you can either deliver the whole string at once via the addTransactiontext operation of course there is a specific format that should be followed. The format is: "<userID:UUID>, <locationID:UUID>, <timestamp:long>, <paper:int>, <plastic:int>, <glas:int>, <metal:int>". It can also be send in separate parts. The setup is similar but all the parts are separate in the soap message.

## 3.2 RabbitMQ

The RabbitMQ listener expects that all incoming data is a single string encoded in UTF-8. It's expects the data in the format as the string interface of soap.