

# Overdraft Extension Report

Saul van der Vies & Noël Keijzer

August 11<sup>th</sup> 2017

## **Total time spent: (combined)**

### Category 1: 8 hours 30 minutes

- Creating methods in multiple services to support fetching and changing the overdraft of a customer.  
3 hours
- Creating methods to calculate interest for a given time period and having this work together with the simulateTime methods.  
4 hours 30 minutes
- Creating SQL statements to support the methods and adding a new column to the database to make calculating interest easier.  
~1 hour

### Category 2: 3 hours

- Fixing methods that were not functioning properly throughout the system.
- Reworking the methods for processing interest in the systemInformationService
- Extending the test suite with basic test methods, solving minor bugs discovered while testing.

### Category 3: negligible

Due to the fact that we already had a built-in spending limit in our system it was quite easy to add the overdraft limit to the system and did not require any major changes. The methods to alter these values were quite straightforward to add as they were pretty similar to other methods. We ran into some small problems when calculating the interest as we did not have data available to easily determine if an account had been in the red in a given timespan. To easily determine this we have added an extra column to the transactions database that records the new balance after a transaction. By using this it was quite straightforward to add a method that finds every account that has been in the red in a given timespan, and to calculate the interest for these accounts. We ran into quite a few bugs during the testing which is why so much time was spent testing the system. The doInterestProcessingRequest method in the systemInformationService did not work as expected so reworking that method took some time as well. There were no previous design decisions that really worked against us this extension.

No big coding decisions were needed for this extension and no new libraries have been added.