

# DUO

by **Benny Bottema** - **Sunday, February 07, 2016**

[http://www.bennybottema.com/pcv\\_experience/duo/](http://www.bennybottema.com/pcv_experience/duo/)

DUO, the national institute of student loans and financing products, is rebuilding its processing systems to provide a quicker result and a better online user experience. Every student will use it in the future.

In addition to being involved in general enterprise level java application development (event-driven SOA, hibernate, REST, SOAP, JMS etc.), I was in lead of the technical development of the new Javascript based student screens, using the following technologies: gulp, jQuery, knockoutjs, requirejs, json REST services, and other minor libraries (such as momentjs). In this position I have devised a scalable web application architecture / structure in which screens and data can be modeled in a homogeneous fashion, consistent across all screens and all teams.

Other interesting activities:

- devised and implemented an approach to (automated) performance testing of the back-ends using JMeter and SoapUI (the last one is for mocking SOAP and JMS). This solution involved integrating the testing process in our continuous integration and deployment cycle (in Jenkins / Bamboo).
- devised and implemented an approach to (automated) javascript unit testing and measuring code coverage using QUnit, Jasmine, JSCoverage, PhantomJs and CasperJS. This solution again involved integrating the testing process in our continuous integration cycle (in Jenkins / Bamboo).
- our teams used the Agile Scrum methodology

Read more about [my experience with DUO](#).