

Master's Thesis

**Reactive und Non-blocking E-Mail Processing based on ReactiveX**

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**Master-Thesis** in cooperation with Swilox GmbH (swilox.com)

Swilox is a developer and vendor of a registration and login service systems. The system supports easy and secure customer login for online shops. Instead of effortful login without login name and password, it supports login using smart phone and authentication with QR-code. The service is intended to support online shops and reduce check-out bounce rates.

In addition to registration and login service, the Swilox system also supports email distribution from online shops to customers. This master thesis has to task to develop the core of this email service system. In particular, it should provide

- support of full SMTP mail protocol and various email formats
- incremental parsing of emails
- reactive and incremental processing of emails
- parallel processing of emails
- long time archival storage of emails

The system has to be implemented in Kotlin and the reactive programming framework Reactive Extensions for Kotlin.