



## ASSIGNMENT OF BACHELOR'S THESIS

**Title:** ElateMe - Backend  
**Student:** Yevhen Kuzmovych  
**Supervisor:** Ing. Jiří Chludil  
**Study Programme:** Informatics  
**Study Branch:** Software Engineering  
**Department:** Department of Software Engineering  
**Validity:** Until the end of summer semester 2017/18

### Instructions

The ElateMe system is a web application with mobile clients providing functionality of crowdfunding and wishlist satisfaction of users and their friends (e.g., for Christmas, birthday, etc.). The ElateMe is a team project. The aim is to analyse and implement a backend for ElateMe.

1. Analyse/create:
  - use cases,
  - domain model,
  - non functional requirements,
  - refund mechanism for cancelled or overdue users' wishes.
2. Design:
  - class and database models,
  - FB and clients push notifications depending on user interaction,
  - deployment model for serving 1500 requests/sec.
3. Implement:
  - a physical database model,
  - a REST API for mobile clients,
  - web endpoints for supporting payments in the FIO bank,
  - implement a refund mechanism for bitcoin payments.
4. Test the server performance and perform unit tests.

### References

Will be provided by the supervisor.

Ing. Michal Valenta, Ph.D.  
Head of Department

prof. Ing. Pavel Tvrdík, CSc.  
Dean

Prague February 14, 2017