

Design and Implementation of a Multi-Client API for Wahlzeit

Summary

Wahlzeit is a photo sharing and rating application used for teaching at FAU. In addition to the existing desktop client UI, Wahlzeit needs a mobile UI and should be prepared for any future changes. To accommodate this, we would like to define an API to Wahlzeit as a headless service that provides all necessary information to a wide array of possible clients, including the current desktop client and a future mobile client. This thesis analyses the design decisions to be made when connecting clients to the service, defines one resulting design, chooses technology for its implementation, adapts the existing Wahlzeit codebase to this design and implements a mobile client.

Work Results

- Literature review
 - Relevant communication protocols (http, Websockets)
 - Relevant data infrastructure (JSON, protocol buffers)
 - Interface structure techniques (REST, etc.)
- Research approach
 - Definition of design and implementation requirements
 - Discussion of dimensions/aspects of requirements
 - Resulting design and explanation/reasons for choice
- Research execution
 - Implementation of design using Wahlzeit
 - Adaptation of Wahlzeit to new headless service
 - Implementation of mobile Android app for Wahlzeit using new API
- Research results
 - Critical review and evaluation of design and implementation
 - With respect to original design goals and requirements

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