Software Lab:

Modeling: ★★☆☆☆
Mathematics: ★☆☆☆☆
Programming: ★★★★☆

Gamification in education - A web application for monitoring the learning progress

Setting

Gamification is a general term for the use of playful elements in a non-game context. In this sense it is commonly used e.g. in various fitness apps, to monitor the training progress.

In the scope of this work, gamification elements shall be applied/transferred to the domain/field of teaching and studies.

Therefor a platform-independent application, to use and evaluate surveys and other forms of teaching elements shall be programmed, making it possible to check the actual level of knowledge via a graphical, game-like element filling up with advancing learning achievements, thus offering some kind of motivation.

Identification is carried out via the tumonline-identifier, thus LDAP authentication is required.

Furthermore personal user data e.g. learning progress is to be stored and accessed by the individual student over a personal account, and a possibility shall be included to evaluate the overall results anonymously.

It is planned to test and apply the developed tool during the principal mechanics lectures visited by approximately 500-600 students. Optimization to be usable on both smartphone and workstations is a mayor prerequisite to guarantee easy accessibility for all students.
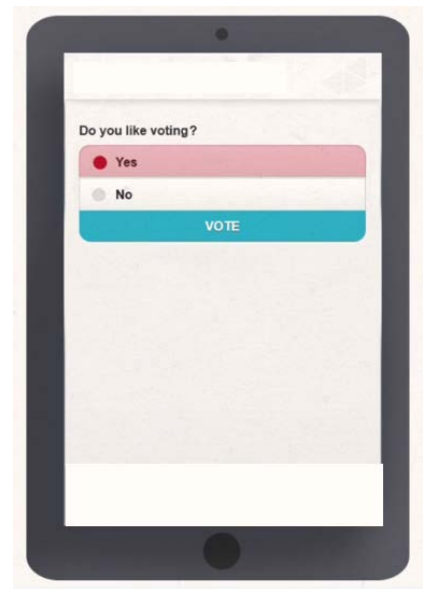
Task

Create a web application that

- allows students monitor their own learning progress
- gives the possibilities to create and evaluate online surveys
- enables authentication over LDAP protocol

Supervisors

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