Online Gradebook

Supplementary Specification

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The purpose of this document is to identify the non-functional requirements of the online gradebook system and focus on its specifics and details.

## Availability

The application is available when the server is running. If the server runs continuously, then the application can be accessed at any moment.

## Performance

Since all the operations are based on short SQL statements, the result appears almost instantaneously after the operation was performed by the user. Also the response speed may depend on the number of concurrent users; if there are many users accessing the database in the same time, the response time may seem a bit slower but not significantly.

## Security

- SQL injection safe application

- Passwords are stored as hash codes

- Only valid data can be introduced

## Testability

All the units and their methods are tested using JUnit. I try to cover all the cases, which are: firstly, introducing valid information, then test if login is sql injection safe or not, the introduction of invalid data (number in a name, mark out of the range [1,10], etc), dismissing and firing inexistent student or teacher respectively. I think there is no need to test the case when a teacher introduces a mark to another subject, because it may happen frequently in real life, for example when a teacher asks another to introduce their marks because they do not have time.

## Usability

# Design Constraints

The application is a web application written in Java programming language using SpringBoot ThymeLeaf framework and JDBC (Java database connectivity). It has 4 (actually 3) type of users: principal, teacher, student and parent.