**REQUIREMENTS**

**ONLINE ASSESSMENT**

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| Group number: | OP15-SEM29 |
| Date: | 18 November 2020 |
| Course: | Software Engineering Methods |
| Course part: | Requirements Engineering |
| Course code: | CSE 2115 |

**1 Functional requirements**

**1.1 MUST HAVE**

**Users**

* Students and Teachers must log in with their netID and password.

**Students**

* Students participate only in courses that they are enrolled in.
* Students are able to see their own grades and their own answers.
* Students have three attempts per assessment. The highest grade is taken into consideration.

**Teachers**

* Teachers are able to access, change, add and remove questions.
* Teachers can see which students took which exam.
* Teachers can see each student's grades and the student’s average grade.

**Exam**

* Every exam contains 10 questions which are randomly chosen from the topics that are associated with the course.
* At least 1 question from each topic associated with that course.
* An exam lasts 20 minutes. The student can submit his/her answers before the end. When the time is up the answers will be submitted automatically.

**Question**

* Every question has exactly 4 options.
* There has to be at least 1 correct option.
* More than 1 correct option is also possible.

**1.2 SHOULD HAVE**

**Students**

* Students can change their answers during the exam once submitted.
* Students can see the average grade per exam (average of all the assessments for that particular exam).

**Teachers**

* The teacher can see the two worst made questions per exam.

**Course**

* Courses have 1 or more topics associated with them.
* Courses are given by 1 or more teachers.

**Exam**

* When an exam is finished the grade should automatically be calculated and immediately shown to the student. The formula for calculating the grade is:

**Topic**

* Topics have 1 or more questions associated with them.

**1.3 COULD HAVE**

**Students**

* Students can be eligible for extra-time.

**Teachers**

* Teachers can see the students that are enrolled in each course

**1.4 WON’T HAVE**

**2 Non-functional requirements**

**Dates**

* A working version of the application should be finished by 11th of December, 23:59.
* The development team and client meet every week at 15:00 o’clock on Discord, continuing until 20 januari 2021. This excludes the Christmas break.

**Application**

* The application should be implemented in Java SE 14.
* To keep the application extendable, the Application Programming Interface (API) should be easy to understand and to use for all developers working on it now or in the future.
* The application needs to be scalable. This means that it should be able to effectively serve many users at the same time.
* The Authentication data of users should be stored securely. Concretely, this means that no one should be able to see the actual data.
* The application should not have a graphical user interface (GUI)

**Development process**

* The project team uses continuous integration. This means that working copies will be pushed to the relevant branch as often as possible.
* The Master-branch will be protected. Concretely, this means that it should always be functional and will be updated once a week. Intermediate changes will be applied to the development branch.
* The team will use the following analysis tools before every commit: CheckStyle, PMD, FindBugs.
* For every merge request, at least two members will review and approve the request.