Laboratory Assignment AND Assessment Requirements Specification

Version 1.0

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Version History

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| **Version** | **Description of Change** | **Author** | **Date** |
| V01 | Initial/Modification of document | Student X | 16.03.2020 |
| V02 | Completion of document | Student Y | 16.03.2020 |

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# Introduction

The application is written in Java and is designated for teachers to monitor the assignment and assessment of the MAP discipline. It provides an easy way to manage the students’ grades and their assignments. The application keeps track of the deadlines and automatically calculates the grade for an assignment delivered late, considering the penalty. Information about students can be updated and also there is the possibility to remove a student or an assignment.

## Purpose

The application allows the user to perform CRUD operations for Student, Assignment and Grade entities. The Student entity consists of an id, a name and a group number. The Assignment entity consists of an id, a description, a deadline week and a starting week, both being integers. The Grade entity has an id, which is formed by the id of the student and of the assignment for which the grade is given, the grade itself, the week in which the homework was presented, and feedback. The main purpose of the application is to reduce the teacher’s headache of writing the students’ grades on paper and also keeping them up to date regarding the change of deadlines.

## Scope

The scope of the document is to give information about the system: regarding the users, functionalities, purpose, usability, data management and user scenarios.

## Definitions, Acronyms, and Abbreviations

MAP = Metode Avansate de Programare

CRUD = Create/Read/Update/Delete

## Document Overview

The document is organized in chapters and subchapters describing the general purpose and scope of the document, the product description and requirements such as functional and user interface requirements.

# Product/Service Description

The application allows the user to manage data rapidly, by performing CRUD operations on three different entities: Students, Grades and Assignments. Data can be read from a file, which contains various information about the entities that will help the teacher grade the students, assign homework and change deadlines for the assignments.

## Product Context

The product is independent and self-contained.

## User Characteristics

Users that will be using this product are teachers that want an easier way to manage the information regarding students’ grades and assignments dates.

# Requirements

Add here the requirements from the “initial” requirement document and details about each identified requirement.

## Functional Requirements

List the functional requirements (FR) of the system.

|  |  |
| --- | --- |
| Section/ Requirement ID | Requirement Definition |
| FR1.0 | Implement CRUD operations for the Student entity |
| FR2.0 | Implement Create, Read and Delete operations for the Assignment entity |
| FR3.0 | Implement Create and Read operations for the Grade entity |
| FR4.0 | Extending the term of delivery for an existing Assignment |
| FR5.0 | When adding a new Assignment, as well as modifying the delivery date of an Assignment, all students will be notified by email |
| FR6.0 | The NameStudent.txt file (where NameStudent will be replaced by the student’s name) will be emailed to the student, weekly, with the subject "Feedback laboratory MAP". The file will be generated on the spot for each student from the available information, and will contain a list of the assignments that the student has delivered and what grades they got. |
| FR7.0 | When adding a new Grade, if it was delivered later than the deadline, a penalty of 2 points/week will be subtracted from the grade |
| FR7.1 | The delays will not be considered if the student is motivated (for example, a doctor’s note) – this can be set in the application when entering the grade. |
| FR7.2 | If the teacher did not enter the Grades in time, it will be possible to specify the week in which the Assignment was delivered. |
| FR8.0 | Filtering entities based on criteria – students based on group, grades based on student and/or assignment, assignments based on deadline or starting week. |

## User Interface Requirements

The user should be presented a menu where each option is describing one of the functional requirements. After choosing an option the program should ask the user to enter the needed information. The interface is user friendly and will help the teacher manage his work.

## Usability

* The user documentation and help should be complete
* The help should be context sensitive and explain how to achieve common tasks
* The system should be easy to learn.

## Data Management

The data should be stored in file(XML or CSV) in order to have data persistence of the application.

# User Scenarios/Use Cases

The application allows the user to print the list of students, print the list of assignments, print the list of grades, add a new student, add a new assignment, add grade for a student for an assignment, delete an existing student, delete an existing assignment, update a student and extend the deadline for an assignment.