Laboratory Assignment AND Assessment Requirements Specification

Version 1.0

March, 2020

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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, an assignment or a grade.

## Purpose

The application allows the user to perform CRUD operations for Student, Assignment and Grade entities. The main purpose of the application is to implement a digital solution for keeping track of the assignments, grades and deadlines of the students for a certain subject. The application removes the inefficiency of using on-paper tables that can be lost or incorrectly completed. This application aims to be fast and efficient way to register and share between all the teachers of that subject

## 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

Java 11

Ubuntu or Windows OS

Desktop machine

## Functional Requirements

List the functional requirements (FR) of the system.

|  |  |
| --- | --- |
| Section/ Requirement ID | Requirement Definition |
| FR1.0 | Implement CRUD operations for the Student entity |
| FR1.1 | Adding a laboratory theme |
| FR2.0 | Extending the term of delivery for an existing subject |
| FR3.0 | Adding a grade for a particular student to a laboratory topic |
| FR4.0 | When adding a new laboratory theme, as well as modifying the delivery date of a theme, all students will be notified by email. The app will offer the ability to unsubscribe from these  notifications |
| FR5.0 | The NameStudent.txt file (or its content) will be emailed to the student, weekly, with the subject "Feedback laboratory MAP". |
| FR6.0 | The delays will not be considered if the student has motivation. Also, if the student did not presented the assignment in time, it will be possible to specify the week in which the subject was delivered. |
| FR7.0 | Filtering entities based on criteria. |
| FR8.0 | Reports |
| FR8.1 | Lab grade for each student:  he weighted average of grades from the lab topics;  weight share = number of weeks allocated to the topic |
| FR8.2 | Hardest theme:  the average of the grades on the theme is the smallest. |
| FR8.3 | Students who can enter the exam:  average greater than or equal to 4 |
| FR8.4 | Students who have delivered all the themes on time |

## 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.