Laboratory Assignment AND Assessment Requirements Specification

Version 1.0

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Version History

| **Version** | **Description of Change** | **Author** | **Date** |
| --- | --- | --- | --- |
| V01 | Initial/Modification of document | Student N | 1 March 2020 |
| V02 | Completion of document | Student M | 8 March 2020 |

**Contents**

[Laboratory Assignment AND Assessment Requirements Specification 1](#_gjdgxs)

[Version 1.0 1](#_30j0zll)

[8 March 8, 2020 1](#_2jxsxqh)

[1. Introduction 3](#_1fob9te)

[1.1. Purpose 3](#_3znysh7)

[1.2. Scope 3](#_2et92p0)

[1.3. Definitions, Acronyms, and Abbreviations 3](#_3dy6vkm)

[1.4. Document Overview 3](#_1t3h5sf)

[2. Product/Service Description 3](#_4d34og8)

[2.1. Product Context 3](#_2s8eyo1)

[2.2. User Characteristics 3](#_17dp8vu)

[3. Requirements 3](#_3rdcrjn)

[3.1. Functional Requirements 4](#_26in1rg)

[3.2. User Interface Requirements 4](#_lnxbz9)

[3.3. Usability 4](#_35nkun2)

[3.4. Data Management 4](#_1ksv4uv)

[4. User Scenarios/Use Cases 4](#_44sinio)

# Introduction

The application is written in Java and is designated for teachers to be able to assign assignments to students and keep track of them.

## Purpose

The application allows the user to easily manage a list of students, assign assignments to them, mark grades for each assignment, extend deadlines and manage delays.

## 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

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## 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 add students and assignments. Also, he/she can assign a mark for a student on an assignment. The user can modify the student at any time or delete it.

## Product Context

The product is independent and self-contained.

## User Characteristics

Users that will be using this product are university teachers teaching MAP.

# Requirements

When the program starts, the input data is read from the following text files:

* Students.txt file, which contains information about idStudent (student's number), name, group, email, name of the professor
* Assignment.txt file, which contains the following information: laboratory number (unique identifier), brief description of the requirement, deadline – the week of the semester in which the assignment should be delivered (1. 14), the week in which the assignment was received (1..14).

The teacher should be able to see all students and assignments, add a student or assignment, delete, find or edit any information about a student.

Also, the teacher can assign a grade from 1 to 10 for each assignment. Each week of delay will be penalized by 2.5 points.

An assignment can be delivered at most 2 weeks after its deadline, otherwise it will be marked with 1.

The file Catalog.txt will store information about the grades. For each grade, it will contain the id of the grade, the name of the student, the lab id and the value of the mark given.

## 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 | Manage laboratory assignments |
| FR2.1 | Extend the deadline for an existing assignment |
| FR2.2 | Add a new laboratory assignment |
| FR2.3 | Notify students by email when adding a new laboratory assignment or modifying the delivery date of an existing assignment |
| FR2.4 | Add a grade to a particular laboratory assignment to a particular student |
| FR3.0 | Filter students based on different criteria |
| FR4.0 | Generate reports |

## 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.

## 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 text files.

# User Scenarios/Use Cases

The application allows the user to:

* Add a student
* Add a lab assignment
* Assign a grade to a student on a assignment
* Update student
* Delete student
* Find student
* Show all students
* Show all assignments
* Filter student
* Notify students when adding a new laboratory assignment or modifying the delivery date of an existing assignment
* Extend a deadline

Please refer to the Analysis and Design Document.