

Students Laboratories – Students Laboratories Requirements Specification

Version 1.0

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Version History

Version	Description of Change	Author	Date
V01	Initial/Modification of	Szekeky Robert	27 February, 2017

Contents

[Your project name] Requirements Specification	1
Version 1.0	1
27 February, 2017	1
1. Introduction.....	3
1.1. Purpose.....	3
1.2. Scope	3
1.3. Definitions, Acronyms, and Abbreviations.....	3
1.4. Document Overview.....	3
2. Product/Service Description.....	3
2.1. Product Context.....	3
2.2. User Characteristics.....	3
3. Requirements	3
3.1. Functional Requirements	3
3.2. User Interface Requirements	4
3.3. Usability	4
3.4. Data Management.....	4
4. User Scenarios/Use Cases	4

1. Introduction

The system is designed to help teachers manage their laboratory activity by keeping a record of the students assignments and grades.

1.1.Purpose

The Functional Requirement document describes the functionalities of the application. The three main functionalities are: adding students, assigning a laboratory and grade for a student and listing the students that have passed the laboratory.

1.2. Scope

The Functional Requirement document should describe the application in details.

1.3. Definitions, Acronyms, and Abbreviations

There are no acronyms or abbreviations used in the statement document.

1.4. Document Overview

The document has a short description of the application, after which there are 3 sub points (a, b and c) which describe the three main functionalities of the application.

2. Product/Service Description

In this section, describe the general factors that affect the product and its requirements. This section should contain background information, not state specific requirements (provide the reasons why certain specific requirements are later specified).

2.1.Product Context

This program is independed and self-contained.

2.2.User Characteristics

The users of this applications are faculty teachers.

- experience: using a console-based application
- technical expertise: intermediate computer expertise

3. Requirements

3.1. Functional Requirements

List the functional requirements (FR) of the system.

Section/ Requirement ID	Requirement Definition
FR1.0	The system shall add new student (registration number, name, group)
FR2.0	The system shall assign grades and laboratories to a student.
FR2.1	The system shall assign a laboratory to a student.
FR2.2	The system shall grade a student's laboratory.

Section/ Requirement ID	Requirement Definition
FR3.0	The system shall list all students that have passed the laboratory (ordered by groups).
FR3.1	The system shall list all the students.

3.2.User Interface Requirements

The application shall present a menu with the options of :

- 1) adding a student
- 2) assigning a laboratory and a grade
- 3) listing the students that have passed (final grade > 5)

When adding a student or assigning a laboratory and grade a message for every entry should be prompted before the user enters the data from the keyboard e.g “Student registration number: ”, “Student name:” and s.o.

When there exists an input error i.e. student group is a negative number, grade is lower than 1 or greater than 10 and s.o an adequate error message should be displayed i.e “Grade can’t be lower than 1”, “Student registration number can’t be a negative number”.

3.3.Usability

Learnability

- 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

3.4.Data Management

Requirements for student entries:

- student registration number > 0
- student group in the range [100, 900]

Requirements for laboratory and grade entries:

- laboratory number in the range [1, 14]
- problem number > 0
- grade >= 1, initial value set to 1
- date input format (dd/mm/yyyy)
- passing criteria, final grade >= 5

4. User Scenarios/Use Cases

As a user of the system you can add new students by specifying their name, group and registration number.

As a teacher you can assign a grade to a student by specifying the lab problem number, date and the grade.

As a teacher you can list the students that have passed a laboratory, meaning that they have a grade of at least 5, and the students are ordered by groups