Software System Verification and Validation
2018-2019
Laboratory Assignment 01
www.cs.ubbcluj.ro/~avescan

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	Mircea Sorin-Sebastian and Nazarie Ciprian	8 March, 2019

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1. Introduction

The application is written in Java and is designated for students and teachers

1.1.Purpose

The application allows the user to manage the students, their grades and homework within an University.

Scope

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

1.2. Definitions, Acronyms, and Abbreviations

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1.3. 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.

2. Product/Service Description

The application allows the user to manage the students, their grades and homework within an University.

2.1.Product Context

The product is independent and self-contained.

2.2.User Characteristics

Users that will be using this product are students enrolled in an University

3. Requirements

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

3.1. Functional Requirements

List the functional requirements (FR) of the system.

Section/ Requirement ID	Requirement Definition
FR1.0	

Section/ Requirement ID	Requirement Definition
FR 0	Implement CRUD operations for the Student entity
FR 1	adding a laboratory theme
FR 2	Extending the term of delivery for an existing subject (if the current week number is less than or equal to the number of weeks with the assignment deadline).
FR 3	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
FR 4	adding a grade for a particular student to a laboratory topic; any delays due to delays in delivery of a theme will be automatically calculated, showing the student's maximum mark on the topic. Important: A student, on a laboratory theme, has only one grade;
FR 5	When adding a grade, the following information will be retained in the NameStudent.txt file: a "Theme:" ThemeNumber "Delivered in the week:" NumberOfTheDeliveredWeek “Deadline:" NumberOfDeadlineWeek "Feedback:" feedback, suggestions, and explanations in connection with the reduced made regarding the grade.
FR 6	The NameStudent.txt file (or its content) will be emailed to the student, weekly, with the subject "Feedback laboratory MAP".
FR 7	The delays will not be considered if the student has motivation. Also, if the teacher did not enter the notes in time, it will be possible to specify the week in which the subject was delivered.
FR 8	Filtering entities based on criteria.

Section/ Requirement ID	Requirement Definition
FR 9	Reports – Laboratory grade for each student (the weighted average of grades from the lab topics; weight share = number of weeks allocated to the topic). The hardest the theme: the average of the grades on the theme is the smallest. Students who can enter the exam (average greater than or equal to 4). Students who have delivered all the themes on time

3.2.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.

3.3.Usability

- The user documentation and help should be complete
- The system should be easy to learn and use

3.4.Data Management

The data persistence is done by saving all the entities to their corresponding files (in .txt or.xml format).
The grades are saved in “Note.xml” or “Note.txt”
The students are saved in “Students.xml” or “Students.txt”
The grades are saved in “Grades.xml” or “Grades.txt”

“Txt” files are separated by commas, on entity per line.

4. User Scenarios/Use Cases

The most important user scenarios are:

Adding a new student:

- Enter 0 to get into the “Student Menu”
- Enter 1 to get into the “Insert Student Option”
- Enter the id of the student

- Enter the name of the student
- Enter the group of the student
- Enter the email of the student

Deleting a homework:

- Enter 0 to get into the “Homework Menu”
- Enter 3 to get into the “Delete Homework Option”
- Enter the id of the homework

Searching for a grade:

- Enter 3 to get into the “Grades Menu”
- Enter 3 to get into the “Search grade Option”
- Enter the id of the student
- Enter the number of the homework