

”Fontys Module Management System” Software Requirements Specification

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Chapter 1

Introduction

This document specifies all the requirements of the SOFA project during the seventh semester of the Software Engineering course at Fontys Hogeschool Techniek en Logistiek. The project is named Fontys Module Management System (FMMS).

1.1 Purpose

The purpose of this project is to streamline the process of changing module descriptions for the classes in the Software Engineering course, offering one centralized source of truth for the information contained in the module descriptions and the Onderwijs Examen Regeling (OER), and a controlled way of changing the descriptions if need be.

1.2 Scope

The scope of this document contains all the requirements of the system to be created.

1.3 Overview

This document is divided into three chapters. Chapter one will introduce the document and its purpose. The second chapter will give an overview of the functionality of the system and other interactions. The third chapter will specify all detailed requirements gathered which shall be implemented.

Chapter 2

Overall Description

This chapter will describe the general factors that will influence the product and its requirements.

2.1 Product Perspective

The product will be a software system that interacts with a database and a frontend to deliver and receive data.

Input some general diagram or description of the system's architecture

Describe interfaces

2.2 Product Functions

The general major functions of this system will be

- CRUD operations on module data
- Generating and releasing module descriptions and the OER
- Logging changes

2.3 Users

The users of the system will be

- Teachers
- Department Heads
- Curriculum Owner

2.4 External Interfaces

Any external software interfaces are listed here

Table 2.1: User Interaction Interface

Description	User interface
Purpose	Display data to the user and allow modification
Source of input	User interaction
Destination of output	Backend system

Table 2.2: Database Interface

Description	Database connection to a PostgreSQL database
Purpose	Store and retrieve data from and to the system
Source of input	Backend system
Destination of output	Backend system

Table 2.3: PDF Generator Interface

Description	PDF Generator
Purpose	Generate a PDF file
Source of input	Backend system
Destination of output	Backend system

Chapter 3

Requirements

This chapter will detail all non functional and functional requirements of the system.

3.1 Nonfunctional Requirements

This section will list all nonfunctional requirements of the system.

1. The system should be a web application
2. The system should be able to run in a Docker container
3. The environment should easily connect to different versions of the database
4. The system shall be in English only
5. The system should be available outside office hours
6. The system should be available at normal rates
7. The system should be secure
8. The system should be easily extendable for future developers

3.2 User Stories

User stories

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Name	Updating the curriculum
ID	US_003
Actors	Curriculum owner
Story	The curriculum owner changes the curriculum

Name	Publishing the curriculum
ID	US_004
Actors	Curriculum owner
Story	The curriculum owner releases the Curriculum

Name	Login
ID	US_006
Actors	<ol style="list-style-type: none">1. Teacher2. Department head3. Curriculum owner
Story	A system user logs in on the users account.

Name	Logout
ID	US_007
Actors	<ol style="list-style-type: none"> 1. Teacher 2. Department head 3. Curriculum owner
Story	A user logs out.

Name	Changing permission
ID	US_008
Actors	Department head
Story	Department head changes an users permission

Name	Adding users
ID	US_009
Actors	Department head
Story	Department head adds users to the system.

Name	Assigning courses
ID	US_011
Actors	Department head
Story	Department head changes teachers to courses

Name	Inputting guidelines
ID	US_012
Actors	Department head
Story	Department head inputs the guidelines for the module description.

Name	Create a module
ID	US_013
Actors	Curriculum owner
Story	Curriculum owner creates a module.

Name	Modifying a module
ID	US_014
Actors	Teacher
Story	Teacher modifies a module.

Name	Checking history
ID	US_015
Actors	<ol style="list-style-type: none"> 1. Teacher 2. Department head 3. Curriculum owner
Story	A system user looks into the history of a module description

Name	Track history p2
ID	US_016
Actors	<ol style="list-style-type: none"> 1. Teacher 2. Department head 3. Curriculum owner
Story	A system user looks into the history of a module

Name	Display information
ID	US_017
Actors	<ol style="list-style-type: none"> 1. Teacher 2. Department head 3. Curriculum owner
Story	The user displays a module with the corresponding HBO-I matrix.

Name	Insert progress data
ID	US_018
Actors	Teacher
Story	A teacher inserts a students progress data into the system

Name	Change progress data
ID	US_018
Actors	Teacher
Story	A teacher changes a students progress data in the system

Name	Update exam information
ID	US_020
Actors	Teacher
Story	A teacher changes a module's exam information

Name	Create exam information
ID	US_021
Actors	Teacher
Story	A teacher creates a module's exam information

Name	Add competences
ID	US_022
Actors	Teacher
Story	A teacher adds competences to the system.

Name	Remove competences
ID	US_023
Actors	Teacher
Story	A teacher removes competences from the system.

Name	Update competences
ID	US_024
Actors	Teacher
Story	A teacher updates competences in the system.

Name	Adding learning goals
ID	US_025
Actors	Teacher
Story	A teacher adds learning goals to a module.

Name	Updating learning goals
ID	US_026
Actors	Teacher
Story	Teacher updates learning goals in the system.

Name	Creating learning goals
ID	US_027
Actors	Teacher
Story	A teacher creates learning goals in the system.

3.3 Use Cases

3.4 Mockups