Student Management System

Supplementary Specification

Version <1.0>

Revision History

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Supplementary Specification

# Introduction

The Supplementary Specification provides an overview of the entire document. It includes the purpose, scope, definitions, acronyms, abbreviations, references, and overview of this Supplementary Specification. It also captures the system requirements that are not readily captured in the use cases of the use-case model. Such requirements include:

* Legal and regulatory requirements, including application standards.
* Quality attributes of the system to be built, including usability, reliability, performance, and supportability requirements.
* Other requirements such as operating systems and environments, compatibility requirements, and design constraints.

## Purpose

The aim of the Supplementary Specification is to capture the specifications of the device that are not readily captured in the use-case model use cases. It includes specifications such as legal and regulatory requirements, application criteria, quality characteristics of the system to be installed (requirements for usability, reliability, efficiency and support) and other requirements, such as operating systems and the environment, requirements for compatibility and design constraints.

## Scope

The Supplementary Specification captures all the requirements in a single document. The Student Management System that is to be developed provides the teacher, instructor, student and an online friendly environment to interact with learning process (access course, material for learning purpose, view grade online…)

## Definitions, Acronyms, and Abbreviations

## References

## Overview

The Supplementary Specification will provide a detailed description of Student Management System. This document will provide the outline of the requirements, overview of the characteristics and constraints of the system.

# Functionality

## Administrator

*2.1.1. The system shall allow administrator to manage instructor*

*2.1.2. The system shall allow administrator to manage course*

*2.1.3. The system shall allow administrator to enroll student to courses*

*2.1.4. The system shall allow administrator to add student into database*

*2.1.5. The system shall allow administrator to edit student information*

*2.1.6. The system shall allow administrator to delete student*

*2.1.7. The system shall allow administrator to manage accounts*

## Instructor role

*2.1.1. The system shall allow instructor to manage grades*

*2.1.2. The system shall allow instructor to check attendance of student*

*2.1.3. The system shall allow instructor to add announcement in homepage*

## User role

*2.1.1. The system shall allow user to login/logout to website*

*2.1.2. The system shall allow user to find and view student list*

## Accountant role

*2.1.1. The system shall allow accountant to update transaction of website*

## Parent role

*2.1.1. The system shall allow parent to make transaction of website*

## Student role

*2.1.1. The system shall allow student to edit information in profile*

*2.1.2. The system shall allow student to view grade*

*2.1.3. The system shall allow student to view schedule*

*2.1.4. The system shall allow student to view announcement*

*2.1.5. The system shall allow student to enroll into courses*

# Usability

## Navigation

* Use a recurring navigation bar that is consistent and appears in the same location on all the pages
* The user should never arrive on a dead-end page with no further navigational options
* Users should not be required to scroll excessively to view the content on a page

## Consistency

* The presentation of information and the look and feel should be consistent throughout the entire application
* Text, buttons, and images that appear on multiple pages, should be placed in the same location on every page unless there is an overriding design factor

## Language

* Use terms consistently across the application

## Accessibility

* Use a recurring navigation bar that is consistent and appears in the same location on all the pages
* The application should be accessible from <minimum supported browser. i.e. - Microsoft Internet Explorer v7.0> and above

# Reliability

## Availability

* The system is 100% of time available.

## Mean Time Between Failures (MTBF)

* The system is designed to meet a mean time between failures of 4 months or greater

## Mean Time to Repair (MTTR)

* The system is designed to be out of operation within a couple of hours after it has failed.

## Accuracy

* Specify precision (resolution) and accuracy (by some known standard) that is required in the systems output

## Maximum bugs or defect rate

* Usually expressed in terms of bugs/KLOC (thousands of lines of code), or bugs/function-point

# Performance

## Response Times for Application Transactions

* Fast. Maximum 5 seconds.

## Throughput

## The system shall be capable of handling 50 transactions per second.

## Capacity

* The system can deal with 500 users at a time.

# Supportability

## Internet Protocols

* TCP/IP Protocol

## Maintenance

* Minimum once a month

## Extensible

* The system should be built so that it can be extended to support additional functionality in future releases.

# Design Constraints

## Software Language Used

* HTML, CSS, Node.js, Java Spring Hibernate, SQL

## Development Tools

* Eclipse, Microsoft SQL Server

# Online User Documentation and Help System Requirements

* Users can consult the User Manual.

# Purchased Components

* Not required

# Interfaces

## User Interfaces

* The interface of the system is implemented based on web browsers like Google Chrome, Firefox, Microsoft Edge…

## Hardware Interfaces

* Local Area Network (LAN) will be used for collecting data from the users.

## Software Interfaces

* Firewall and other network security solutions will be applied to prevent unauthorized access to the system.

## Communications Interfaces

* The Student Management System will be connected to the Internet.

# Licensing Requirements

* License belongs to university who purchased Student Management System from our team of HANU and agreed on the maintenance contract.

# Legal, Copyright, and Other Notices

* 2020 Copyright …... All rights reserved.

# Applicable Standards

* ISO/IEC 27001 - Information Technology Management.