Database Management System

Supplementary Specification

Version 1.0

Revision History

|  |  |  |  |
| --- | --- | --- | --- |
| **Date** | **Version** | **Description** | **Author** |
| 08/12/2021 | 1.0 | Initial release | Do Minh Vuong |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

Table of Contents

1. Introduction 5

1.1 Purpose 5

1.2 Scope 5

1.3 Definitions, Acronyms, and Abbreviations 5

1.4 References 5

1.5 Overview 5

2. Functionality 5

2.1 View 5

2.2 Add 5

2.3 Modify 6

2.4 Review 6

3. Usability 6

3.1 Interface design 6

3.2 Help document 6

4. Reliability 6

4.1 Availability 6

4.2 Mean time to repair 6

4.3 Accuracy 6

5. Performance 6

5.1 Response time 6

5.2 Resource use 6

6. Supportability 6

6.1 Maintenance 6

6.2 Extensible 6

7. Design Constraints 6

8. Online User Documentation and Help System Requirements 6

9. Purchased Components 9

10. Interfaces 9

10.1 User Interfaces 9

10.2 Hardware Interfaces 9

10.3 Software Interfaces 9

10.4 Communications Interfaces 9

11. Licensing Requirements 9

12. Legal, Copyright, and Other Notices 9

13. Applicable Standards 9

Supplementary Specification

# Introduction

This document describes the non-functional requirements of the database management system: reliability, usability, performance, and supportability as well as functional requirements that are common across several use cases.

The Supplementary Specification 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 purpose of this document is to build a communication system between the hosting server and the database service server to manage database.

## Scope

This Supplementary Specification applies to the SDMS, which will be developed by the Model View Controller (MVC) development team.

The purpose of this system is to simplify the management of the database system through the cPanel interface.

## Definitions, Acronyms, and Abbreviations

API: Application Programming Interface.

PHP: Hypertext Preprocessor

## References

No required.

## Overview

The Supplementary Specifications gives us the idea about the non-functional requirements and features such as Usability Reliability, Performance, and all other features. This document covers all that section step by step.

# Functionality

## View

The administrator can view list of databases, users, or access hosts.

The list will be shown like table.

## Add

The administrator can add a new database, user, or access host, and add a user to a database.

## Modify

The administrator can rename a database name, username, or host comment, and change user password.

These functions will be shown on each line of table.

## Remove

The administrator can remove a database, user, or access host.

This function needs to be confirmed a second time

# Usability

## Interface design

The interface is designed to be minimalistic so that users can easily get used to it and use it quickly.

## Help document

The relevant user manuals are also displayed at the top of the page for easy viewing by the users.

# Reliability

## Availability

The application is 100% of time available.

## Mean time to repair

* If system downtime occurs the system support staff should be notified immediately. This will be achieved by real-time monitoring of the systems.
* Accuracy – specify precision (resolution) and accuracy (by some known standard) that is required in the systems output.

## Accuracy

The application is 100% of accuracy.

# Performance

## Response time

Response time for loading webpage is 1 – 2 seconds.

## Resource use

Hard disk, memory

# Supportability

## Maintenance

The system will allow for scheduled downtimes after 6 months from for performing maintenance on the systems.

## Extensible

None.

# Design Constraints

## cPanel: Platform provides the most reliable and intuitive server and site management.

* SQL: Structured Query Language (SQL) is used to access relational databases. All of the interactions with the database system are conducted using SQL.

# Online User Documentation and Help System Requirements

No required.

# Purchased Components

No required.

# Interfaces

## User Interfaces

Front-end software: cPanel

Back-end software: MySQL

## Hardware Interfaces

No required.

## Software Interfaces

API.

## Communications Interfaces

This project supports all types of web browsers and designs specifically for mobiles with IOS and Android operating systems.

# Licensing Requirements

No required.

# Legal, Copyright, and Other Notices

2021 Copyright to Do Minh Vuong – class 4C19 HANU. All rights reserved.

# Applicable Standards

No required.