Many Voices Publishing Platform

Software Design Document

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Abstract

The Many Voices Publishing Platform uses a variety of technologies to handle different aspects of the project, from the user interface to the backend database operations. These technologies enable to the Many Voices Publishing Platform to succeed in delivering a working platform for textbook collaboration.

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1 OVERVIEW

The Software Design Document is a document to provide aid for the software development process by providing detailed information on how the software should be built. Additionally providing information on interactions between different pieces of software and users through use cases, UML diagrams, and other supporting information.

1.1 Scope

This Software Design Document is used to record design information and communicate design information to project stakeholders. This Software Design Document also provides the details of required functionality for the Many Voices Publishing Platform, a textbook creation platform for publishing textbooks.

1.2 Purpose

The purpose of this document is to describe the implementation of the Many Voices Publishing Platform (MVP Platform) software. The Many Voices Publishing platform is designed to allow for the creation of textbooks by College and University professors or any person interested in creating their own textbook.

2 DEFINITIONS

Aurelia	A JavaScript client framework for mobile, desktop and web leveraging simple conventions and empowering creativity [**?**].
Alpha Test	Limited release(s) to selected, outside testers (Friends and Family)
Beta Test	Limited release(s) to cooperating customers wanting early access to developing systems (Professors and other educators)
Federated	Individual parts that stand as an individual but can be combined into a single unit
Final Test	Release of full functionality to customer for approval
PDF	Portable Document Format, that is able to combine text, graphics, and other information into a single document

PCI	Payment Card Industry, is a proprietary information security standard for credit cards in an effort to reduce credit card fraud
Scrap	A section of a textbook, which can contain formatted text (markdown or latex), and media
Section	An ordered collection of Scraps belonging to a chapter
Chapter	An ordered collection of Sections and Scraps
SDD	Software Design Document
SSRS	System and Software Requirements Specification
Source Control	An element of software design management, version control, and is the management of changes to documents, large web sites, computer programs, and other collections of data
Media	A standalone image, figure, or video. Can be embedded in a Scrap
Node	A JavaScript runtime designed to build scalable network applications
User Interface (UI)	The means by which the user and a computer system interact, in particular the use of input devices and software
Web Application	An interactive program that can be accessed and is based through a web server instead of being stored on a user's desktop
Wiki	A collaborative content editing platform

3 CONCEPTUAL MODEL FOR SOFTWARE DESIGN DESCRIPTIONS

Use Cases

3.1 Software design in context

3.2 Software design descriptions within the life cycle

4 DESIGN DESCRIPTION INFORMATION CONTENT

4.1 Introduction

4.2 SDD identification

4.3 Design stakeholders and their concerns

4.4 Design views

4.5 Design viewpoints

4.6 Design elements

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5 DESIGN VIEWPOINTS

5.1 Introduction

5.2 Context viewpoint

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5.4 Logical viewpoint

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6 ANNEX A - (INFORMATION BIBLIOGRAPHY

7 ANNEX B - CONFORMING DESIGN LANGUAGE DESCRIPTION

8 ANNEX C - TEMPLATES FOR AN SDD

9 CONCLUSION

The Many Voices Publishing Platform is a combination of User Interfaces, Documentation, User Centered Design, Testing, User Authentication, Databases, Server Back-end, Text Formatting, Password Storage, and the users themselves. Determining the technologies behind these parts and pieces is a difficult task to accomplish, as many choices can satisfy the requirements of the project. Finding the best solution however is the goal of this document, to provide a clear path forward for the platform as a whole.