Software Requirements Specification Outline For Law Firm Management System

Version 1.1

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Revision History

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Introduction

1.1 Purpose

The project name is Law Firm Management System (LFMS), the purpose of this project is to manage the Law Firms Client and Managements information. As well as this application is developed to keep Law Firms and clients data up to date and to provide the flexibility in managing data as given requirements. The application is developped by *Kondaiah Nayak Malavathu* and *Djelloul Haradj* as part of Fannie Mae Full-Stack Developer Cohort Program. In this document, we will provide all required details about the application characteristics and its functionalities.

1.2 Scope

The Law Firm Management System (LFMS) application's main functionality is to enter the law firms as well as client's information, ability to add, update, delete as it requires. Application will allow you to manage all law firms data from one database. Admin will be able to add, update, and delete law firms data from the database as needed. Clients can enter their own personal information and if they need andy changes then they have to contact database admin for updating. In this application, all law firms are centralized in one database which can give the flexibility maintain, manage and improve speed of data access. In addition to that, you can generate reports and use different queries to customize data for required need of the moment.

Definitions, acronyms, abbreviations

Term	**Definition**
LFMS	Law Firm Management System
CSV	Comma-Separated Values
HTML	Hypertext Markup Language
JSON	JavaScript Object Notation
SQL INSERT Statement	Structured Query Language INSERT Statement
XML	Extensible Markup Language
XL Spreadsheet	Extra Large Spreadsheet
XML (mysql format)	Extensible Markup Language (MySQL Format)

1.3 References

IEEE 830 SRS outline

1.4 Overview

Product perspective and product functions are outlined below in detailed structure:

- Front-end and back-end applications
- Database admin and client privileges
- Application limitations
- Predefined dependencies and assumption
- External interface requirements like client interfaces, hardware interfaces, software interfaces, software interfaces, and communications interfaces

Overall Description

2.1 Product perspective

LFMS application can be used in law firms to manage clients and law firms data. In LFMS application, we are using MySQL database application for storing data and admin will have all permissions on data. In order to add, update, and delete data admin will be using Postman application. If Postman application is not working, data links can work on browser too.

2.2 Product functions

- This application will allow database admin to make required changes up on Client's and Law Firms request
- This application will allow clients to add their personal information and choose the law firm category
- This application will allow database admins to create new data repositories, add, update, and delete data to the database
- Using this application database admin can generate customized reports as needed.
- If there is a requirement to add database to manage higher volume of data, we can add database admins to the application

Requirements

- Requirement (RK1): Quality Assurance Analyst Previlages Test Case where it will be tested the permissions over the database information
- Requirement (RK2): Quality Assurance Analyst Previlages Test Case should be defined by the create, add, update, delete the data
- Requirement (RK3), Database Admin Previlages Test Case should be defined by the ability to create, add, update, delete the data
- Requirement (RK4), Database Admin should able to give the permissions to others like tester and Quality Assurance Analayst
- Requirement (RK5), Database should have client, clients, law_firm, and law_firm_management tables
- Requirement (RK6), The Database Admin should able to access records
- Requirement (RK7), The database platform will provide staff with the ability to obtain immediate access to predefined reports.
- Requirement (RK8), The will provide staff with the ability to easily define new reports at a decision-making time of need.
- Requirement (RK9), The database will provide an easily accessible record storage system.
- Requirement (RK10), The database will provide each client with a periodic statement of their equipment transactions.
- Requirement (RK11), The database will provide the ability to conduct an employee tool check-in/out analysis.
- Requirement (RK12), The privileged role Law Firm Management should able to generate an exception report that identifies problem situations and employees.

2.3 Constraints

- Client can not add, update, and delete the law firm data, database admin only have privilege over data
- This application is mapped to use MySQL database. If there is a need to change the database environment then we have to redefine the annotations for application backend program

2.5 Assumptions and dependencies

- Application should work on Windows, Linux, and iOS operating systems
- Using Spring Framework
- Using Java language as base language
- Using Maven Packages as dependency
- Using Spring Boot version is 2.7.0
- Using *Spring Boot Starter Data JPA* for Spring Framework dependency
- Using *MySQL Connector Java* for Spring Framework dependency
- Using *Spring Boot Starter Test* for Framework dependency
- Using *Spring Boot Starter Thymeleaf* for Framework dependency
- Using *Spring Boot Devtools* for Framework dependency
- Using *Lombok* for Framework dependency
- Spring Boot Metadata Group - com.springboot
- Spring Boot Metadata Airfact - lawfirmapi
- Spring Boot Metadata Name - lawfirmapi
- Spring Boot Metadata Package Name - com.springboot.lawfirmapi
- Spring Framework Jar packaging
- Spring Framework Java version 17

Specific requirements

3.1 External interface requirements

3.1.1 Client Interfaces

- Clients device operating systems should run the backend Java version 17 to support the application.
- Application interface is available for Clients to enter their information
- Any working browser

3.1.2 Hardware Interfaces

- There are no hardware requirements to run this application.

3.1.3 Software interfaces

- This application management runs on MySQL on database side and to work on data manipulation we need to have Postman application
- To print and check the entered data, required data, query result can see on browser
- Data exporting can be done in file formats - CSV, HTML, JSON, SQL INSERT statement, XL Spreadsheet, XML (mysql format), and Tab separated

3.1.4 Communications interfaces

- Any device connecting to the internet, and device with up to date operating system

3.2 Functional requirements

3.2.1 Home page

- Login page for Clients
- Login page for Law Firms

3.2.2 Data Preview

- Clients will have privilege to see their entered data

- Clients can verify their personal information to preview
- Clients can re-correct their information in case if they entered wrong by mistake

3.2.3 Equipment check-in

- Functioning devices like laptops, PCs, iPad, and Android mobile devices with up to date operating system, with the assumption that these devices support application interface

3.2.4 Search inventory

- Clients can read their information
- Clients can get further information related to their file up on request with database admin assistance
- All database admins can search desired reports and generate reports from existed data repositories.

3.2.5 Check-out history

- Clients information will be associated with unique id and firm_id to avoid data duplication
- Database admin only can add any data with given exception
- All the transaction history will be recorded in database

3.2.6 Report an issue

- Clients can report any problem using “report problem” feature. In order to make changes and add it to respective file, client should provide the client’s id and firm_id so that client’s profile can be identified and in order to make changes

3.2.7 Add/Remove Client’s Profile

- Database admins only have permissions to add or remove client’s profile

3.2.8 Add/Remove Data

- Database admins only permitted to add or remove Client’s data

3.2.9 Reports

- Database admins have permissions to generate customized reports and able to export data files in CSV, HTML, JSON, SQL INSERT statement, XL Spreadsheet, XML (mysql format), and Tab separated formats

3.3 Software System Attributes

3.3.1 Usability Quality:

- Client will have ability to access application on any device that meets software speficifications
- Application meets the safety requirements which was enabled by the Spring Framework and Java language
- From developers perspective, it is easy to read and understand for parallel programming in a team work environment

3.3.2 Reliability Quality:

- Spring Framework and features of Spring Boot will enable the reliability and quality aspect of application.
- Java language provides stronger object oriented framework and structure with JVM that provides higher speed for application
- Reliability on Spring Boot and Spring Framework will provide security and lesser vulnerabilities for given all challenges

3.3.3 Performance Quality:

- Because application is developed using Java language version 17, we used a latest features that enabled by Maven packages. JVM helps with better performance and speed of the application's run time.
- Using simple workflow and user friendly front-end platform

3.4 Design constraints

3.4.1 Availability:

- Clients can not use on devices that are old operating systems that doesn't support application software specifications

3.4.2 Security:

- If Client's device is compromised due to malwares or misused with client's credentials then it can cause the data misuse and manipulation.

3.4.4 Maintainability:

- Spring Framework provides the reliability to maintain and upgrade the application, as framework upgrade happens.