**IEEE-830 Software Requirements Specification (SRS) Document Outline Format**

**Project Name:** DnD Management Tool

**Team Members:** Hailey Thomas

**Software Requirements Specification**

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# Introduction

1.1 Purpose: This paper serves as a comprehensive requirement overview for the DnD Management Tool that Hailey Thomas will be developing. It describes the system's features, limitations, and underlying presumptions.

1.2 Scope:The system attempts to provide the user with a streamlined interface that allows for character creation, as well as item and spell management. The application allows for the sharing of created content with other users in the system should they choose to do so.

## 1.3 Definitions, Acronyms, Abbreviations:

SRS: Software Requirements Specification

OOP: Object Oriented Programming

DnD: Dungeons and Dragons

TTRPG: Tabletop Role Playing Game

DM: Dungeon Master – the individual that runs the game. They enforce rules and control the narrative of the game.

Homebrew: Custom content created by DMs or Players.

1.4 References:

DnD 5e Player’s Handbook

DnD 5e Dungeon Master’s Guide

1.5 Overview: An overview of the management system's features and the prerequisites for its development are given in this document.

# Overall Description

2.1 Product Perspective: The management system designed to track and update a DnD player’s characters, spells, and other homebrew materials will utilize a GUI that will allow users to manage, create, and share content. The system will utilize a database that stores data required in each process. The system will allow users different levels of access depending on their role; role management is permitted by administrators and moderators. Level of access is dependent on the specific role held by the user.

## 2.2 Product Features:

* The system will manage user authentication and creation of new accounts.
* The system will provide role management features, available only to moderators and administrators.
* The system will provide content management features to moderators and administrators.
* The system will allow users to input their character information in an easy to navigate GUI.
* The system will allow users to view public items, spells, and feats.
* The system will allow users to create, delete, and view content, with the option to make their homebrew content available to other users.

2.3 User Characteristics**:** Individuals participating in DnD or other TTRPGs that require a management application for their characters, spells, feats, and items.

### 2.3.1 Software System Attributes:

* **Flexibility:** Flexibility is vital for this system, due to the creative nature of DnD games. The system promotes this flexibility by allowing the user to enter standard information, while leaving available areas to add their own notes, disregarding default input as necessary. This allows users to utilize this application for not only DnD, but other TTRPGs as well.
* **Performance:** Performance is important in this application due to the implicit need to switch between pages quickly as needed. This will be accomplished by utilizing OOP standards and unencumbered database tables.
* **Functionality:** Functionality is critical to this application, as the user base requires the application to work as it is meant to. Functionality will be ensured by thorough testing through various use cases, as well as testing by trusted outside sources.

2.4 Database Requirements**:** Data storage is a vital part of this project’s use. The database must contain secure user information, authentication methods, and complete and accurate data. This is achieved via secure passwords and code verification.

2.4 Constraints**:** The system must comply with laws and regulations as relevant and necessary. The system must function on necessary platforms.

2.5 Assumptions and Dependencies: The system assumes that information will be entered in the proper hierarchy as necessary to save data properly. This is accomplished by granting access to the user\_data table for the UserID, and the character\_basics table as necessary to save data to a specific character’s information sheets. Additionally, a specific character’s saved spells or feats will require access to the tables that track all spells and all feats.

# Specific Requirements

## 3.1 External Interface Requirements

3.1.1 User Interfaces:The system will utilize a GUI that allows users to easily read and manage their saved data, moderate as necessary, and view the information that other users have made publicly available. This will consist of a number of forms as required to benefit the user experience.

3.1.2 Hardware Interfaces: The system will require a PC or laptop, able to run Windows Operating Systems. Additionally, it will need to be able to access the server in which this data is saved. Currently, this database is local only.

3.1.3 Software Interfaces:The software necessary to run this application is currently MySQL Workbench, as this is so far only a local access program. The application does not require other software to function.

3.2.4 Communications Interfaces:Standard protocols like TCP/IP for data transfer are required and supported in this system. As the application currently does not access the web, no other communications interfaces are required.

## 3.2 Functional Requirements

### 3.2.1 Information Management System

* TODO

### 3.2.2 User Management System

* TODO

### 3.2.2 User Authentication System

* TODO

## 3.3 Performance Requirements

3.3.1 Standards: Standard industry requirements must be followed for the duration of this project. Data in database will be normalized.

3.3.2 Hardware Limitations:Within the hardware constraints of database servers, the system must display appropriate functionality.

## 3.4 Design Constraints

3.4.1 Availability: The system must allow for multiple users to access the program, and the data, at once.

3.4.2 Security: Security measures are to be implemented in order to verify users, so as to protect their data and privacy.

3.4.3 Maintainability: The system must follow the tenets of OOP in order to allow for ease of maintenance and readability of code. Documentation protocols must be followed in order to assist developers in maintaining the software.

## 3.5 Other Requirements