Software Requirements Specification

for

Online Table Top RPG Software

**Version 1.0**

**Prepared by Gabriel Moreno**

**Moreno LLC**

**02/25/2022**

**Table of Contents**

**Table of Contents ii**

**Revision History ii**

**1.** **Introduction 1**

1.1 Purpose [1](#_19c6y18)

1.2 Document Conventions [1](#_3tbugp1)

1.3 Intended Audience and Reading Suggestions [1](#_28h4qwu)

1.4 Product Scope [1](#_nmf14n)

1.5 References [1](#_37m2jsg)

**2.** **Overall Description 2**

2.1 Product Perspective [2](#_46r0co2)

2.2 Product Features [2](#_2lwamvv)

2.3 User Classes and Characteristics [2](#_111kx3o)

2.4 Operating Environment 3

2.5 Design and Implementation Constraints 3

2.6 User Documentation 3

2.7 Assumptions and Dependencies [3](#_3l18frh)

**3.** **System Features 5**

3.1 Convert Lighting 5

3.2 Delete Game 5

3.3 Copy Game 5

3.4 Roll Back Game 5

3.5 Edit Handout 5

3.6 Delete Library Item 5

3.7 Turn a Sheet into a non-player character (NPC) sheet 5

3.8 Make a Document Visible to All Users 6

3.9 Create a Folder 6

3.10 Sharing the Online Game 6

**4.** **External Interface Requirements 6**

4.1 User Interfaces Overview 6

4.2 Hardware Interfaces 6

4.3 Software Interfaces 6

**5.** **System Features/Modules 7**

5.1 Convert Lighting 7

5.2 Delete Game 8

5.3 Copy Game 9

5.4 Roll Back Game 9

5.5 Edit Handout 10

5.6 Delete Library Item 10

5.7 Turn a Sheet into a Non-Player Character (NPC) Sheet 11

5.8 Make a Document Visible to All Users 12

5.9 Create a Folder 12

5.10 Sharing the Online Game 13

**6.** **Nonfunctional Requirements 13**

6.1 Performance 13

6.2 Security 13

6.3 Quality 14

**Revision History**

| **Name** | **Date** | **Reason For Changes** | **Version** |
| --- | --- | --- | --- |
| *Gabriel Moreno* | *02/25/2022* | *Initial Version* | *1.0* |
| *Gabriel Moreno* | 03/14/2022 | *Revisions Made* | *2.0* |
| *Gabriel Moreno* | 03/18/2022 | *Additional Revisions Made* | *3.0* |

# Introduction

## Purpose

*This SRS describes the software functional and non-functional requirements for release 1.0 of the Online Table Top RPG System (Online TTRPG System). This document is intended to be used by the members of the project team that will implement and verify the correct functioning of the system. Unless otherwise noted, all requirements specified here are high priority and committed for release 1.0.*

## Document Conventions

*The Online TTRPG System will permit Moreno LLC employees to create and engage in online tabletop games, and alter the settings as they deem fit. A detailed project description is available in the Online Table Top RPG Software Requirements Specifications document. The section in that document titled “scope” lists the features that are scheduled for full or partial implementation in this release.*

## Intended Audience and Reading Suggestions

*This document is for the entire product team, especially the project manager, developers, and QA personnel.*

## Product Scope

*The product, will be a low-maintenance cloud-based online tabletop RPG gaming system that runs on popular operating systems, and most popular browsers. It will include features to manage sheets, media files, private game servers, and personal URL generation for access by private groups or public groups.*

## References

* Moreno G. (04 February 2022) *MorenoGabriel\_UseCaseProject1.docx.*
* Linker S. (22 January 2022). *Use Case Project.* University of Maryland Global Campus. <https://learn.umgc.edu/d2l/le/content/626936/viewContent/25084427/View>

# Overall Description

## Product Perspective

*The Online TTRPG System is a new system that is to improve upon and replace the current online tabletop systems while also minimizing the complexities of prior systems studied by Moreno LLC. The context diagram in Figure 1 illustrates the external entities and system interfaces for release 1.0. The system is expected to evolve over several releases, ultimately connecting to the internet and establishing a domain for which the public can utilize the tabletop system.*

## Product Features

*The following shows the product features in list form, and how they fit together.*

• *Convert Lighting*

• *Delete Game*

• *Copy Game*

• *Roll Back Game*

• *Edit Handout*

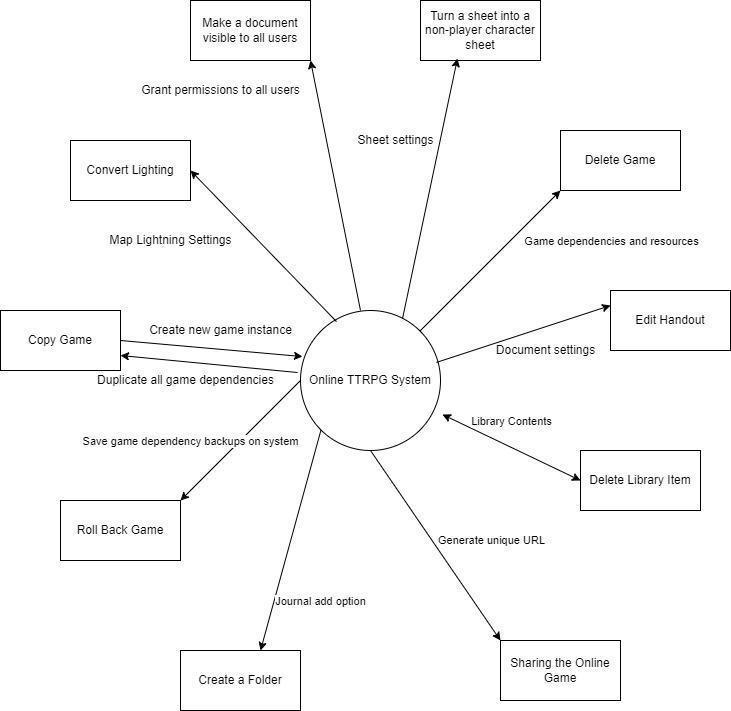
• *Delete Library Item*

• *Turn a Sheet into a non-player character (NPC) Sheet*

• *Make a document visible to all users*

• *Create a Folder*

• Sharing the online game



## User Classes and Characteristics

Game Master: The Game Master is the person in charge of the ruleset, the story, and the NPCs within the TTRPG. There is typically only 1 game master in the standard TTRPG setting, and they are in charge of making the game enjoyable for the Player(s) involved. The Game Master makes up the minority role within an individual TTRPG group and is able to override/change the ruling of the game as they deem fit. The Game Master interacts with the system by creating the overarching environment both in and out of the game for the Player(s) and onlookers to digest.

Player (favored): The Player is one of a 1-8+ group of individuals who play a TTRPG excluding the Game Master. More players can be included based on Player and Game Master comfort, but the standard range usually never exceeds that of 10 Players total. The Player takes on the role of a fictitious character within the TTRPG setting created by the Game Master, and interacts with that world through the eyes and attitude of that character. The Player primary interaction with the system is creating a character sheet and rolling dice for that created sheet.

Game Host: The Game Host is typically hand-in-hand with the Game Master, as the Game Host and Game Master are normally one and the same. However, the Game Host can be anyone within the TTRPG group that provides the rules, setting, character sheets, maps, and more when in the process of creating or playing a TTRPG. The Game Host mainly interacts in the system, by providing resources and materials for the game to function, they may even take up the role of Game Master and in most cases do so.

## Operating Environment

OE-1: The Online TTRPG System shall operate with the following Web browsers: Microsft Internet Explorer versions 11, Google Chrome version 99, and Mozilla Firefox version 97.

OE-2: The Online TTRPG System shall permit the user access from the cloud server, and only allow authorized accounts registered to the system to access the system.

## Design and Implementation Constraints

CO-1: All HTML code shall conform to the HTML 5.0 standard.

CO-2: All client-side scripts shall be written in Javascript.

## User Documentation

UD-1: The system shall provide an online hierarchical and cross-linked help system in HTML and optionally Javascript that describes and illustrates all system functions.

UD-2: The first time a new user accesses the system and on user demand thereafter, the system shall provide an online or printable tutorial to allow users to practice creating/deleting documents, and importing/removing outside assets. The system shall save the tutorial work for the user under a private tab that the user can access.

## Assumptions and Dependencies

AS-1: The TTRPG is always accessible to the Players, Game Master, and Game Host to check/edit documents, maps, and other resources within the game.

DE-1: The operation of the Online TTRPG System depends on changes made in regards to the operating system and the browser to accept 3rd party changes to the OS and the browser. The system will require 3rd party access to web cameras, audio input, audio output, and firewall access to properly run with all of the features available.

# System Features

## *Convert Lightning*

*The ability to remove or add realistic lighting and shadows to specific maps within the TTRPG.*

## *Delete Game*

*Deleting the game, and all assets, rules, and sheets included within the chosen game.*

## *Copy Game*

*Creating a copy of the game, and all assets, rules, and sheets included within the chosen game. Certain items can be excluded from being copied such as character sheets, handouts, etc.*

## *Roll Back Game*

*Select a date from a list of previous automatic backups on the system. Roll the game back/restore or revert any changes made to the game since that date. This effectively wipes all changes to the game after that date and restores older data/resources.*

## *Edit Handout*

*Open a handout for editing, altering fonts, words, or visibility to users.*

## *Delete Library Item*

*Remove an item such as images or audio from the game library, this reduces space used by the TTRPG and improves the memory processing available to the game.*

## *Turn a Sheet into a non-player character (NPC) Sheet*

*Convert a standard character sheet into a simpler character sheet with fewer rules, and customization options.*

## *Make a Document Visible to All Users*

*Give all users the ability to view, and edit a document within their journal.*

## *Create a Folder*

*Create a location to store, and organize information within the TTRPG.*

## *Sharing the Online Game*

*Create a custom URL and potential game key/password and share it privately or publicly with those desired. This grants those that use the URL access to the TTRPG created by the Game Host/Game Master.*

# External Interface Requirements

## User Interfaces Overview

UI-1: The Online TTRPG System screen displays shall conform to Moreno LLC criteria.

UI-2: The system shall provide a help link displayed HTML page to explain how to use that page.

UI-3: The system shall provide a tutorial tab available on the displayed HTML page to explain how to use each feature on that page.

## Hardware Interfaces

N/A

## Software Interfaces

* + 1. Interface between the Online TTRPG System and the cloud server.

SI-1.1: The Online TTRPG System shall transmit user login information, settings, and personal information into a secured vault on the system.

SI-1.2: The Online TTRPG System shall allocate memory and processing speed depending on the number of active users.

SI-1.3: When the cloud has exceeded its storage capacity, the cloud shall notify the system to remove older or unused assets from storage and delete them from the system to create more free space for newer assets.

4.3.2 Interface between the Online TTRPG System and the user.

The Online TTRPG System shall communicate with the user for the following operations:

SI-2.1: To allow the user to create an account.

SI-2.2: To allow the user to import resources into their personal library.

SI-2.3: To allow the user to access a game of which they have permissions.

SI-2.4: To allow the user to access their account on the system.

SI-2.5: To verify the user is active.

SI-2.6: To check what features the user has access to on the system.

# System Features/Modules

## *Convert Lighting*

5.1.1 Description and Priority

*Converting lighting will add the dynamic lighting settings on chosen in-game pages/maps. This includes updating characters sheets, tokens, and other resources affected by the lighting/shadows that are included on the chosen maps. Priority = Medium.*

5.1.2 Stimulus/Response Sequences

Stimulus: *A logged-in user selects the settings dropdown on a game page.*

Response: *The system shows all options for that game in a dropdown menu.*

Stimulus: *The user selects the convert lighting option from the menu.*

Response: *The list of all maps, the options, and a description of the feature pop-up on the screen.*

Stimulus: *The user selects the maps that they want to convert lighting on.*

Response: *The system highlights them and records the option.*

Stimulus: *The user clicks on “Cancel”.*

Response: *The system closes the menu without making changes to the maps.*

Stimulus: *The user clicks on “Convert”.*

Response: *The system closes the menu and makes changes to the chosen maps.*

5.1.3 Functional Requirements

REQ-1.1: *Upon a logged-in user clicking on the settings, the system shall open a dropdown menu of all game settings.*

REQ-1.2: *The user selecting the convert lighting option shall cause the system to show the lighting options.*

REQ-1.3: *Upon the user clicking on the desired pages/maps, the system shall store the information and await confirmation or cancellation.*

REQ-1.4: *The user clicking cancel, shall cause the system to close the menu without making any changes.*

REQ-1.5: *The user clicking on convert, shall cause the system to record the lighting changes on the desired maps.*

REQ-1.6: *When the conversion of lightning is complete, the system shall keep a backup of the game prior to the changes in a rollback tab within the settings.*

## *Delete Game*

5.2.1 Description and Priority

*A user of the system that is logged in, and has access/permissions to the game can delete the game including all of its assets, dependencies, tokens, and player access. Priority = High.*

5.2.2 Stimulus/Response Sequences

Stimulus: *A logged-in user selects the settings dropdown on a game page.*

Response: *The system shows all options for that game in a dropdown menu.*

Stimulus: *A logged on user selects the “Delete Game” option*

Response: *The system pulls up a confirmation window*

Stimulus: *The user selects cancel*

Response: *The system closes the window and the game is not deleted*

Stimulus: *The user types in the word delete and presses enter*

Response: *The system closes the window and the game is deleted*

5.2.3 Functional Requirements

REQ-2.1: *Upon a logged-in user with access and permissions to a game clicking on the “settings” drop down, the system shall open the settings menu.*

REQ-2.2: *After clicking on the delete game option, the system shall open a confirmation window.*

REQ-2.3: *The user clicking on cancel shall close the delete game pop-up window.*

REQ-2.4: *Typing in the word delete into the confirmation window and pressing enter, shall delete the game and all of its assets/dependencies.*

## *Copy Game*

5.3.1 Description and Priority

*A user of the system that is logged in, and has access/permissions to the game can copy the game including all of its assets, dependencies, tokens, library, and lightning. This does not include the players with access nor the permissions of the ones in the original game. Priority = Low.*

5.3.2 Stimulus/Response Sequences

Stimulus: *A logged-in user selects the settings dropdown on a game page.*

Response: *The system shows all options for that game in a dropdown menu.*

Stimulus: *A user selects the “Copy Game” option.*

Response: *The system opens a new page showcasing all of the copying options.*

Stimulus: *The user selects the create game button.*

Response: *The system creates a 1-1 copy of the game.*

5.3.3 Functional Requirements

REQ-3.1: *Upon a logged-in user with access and permissions to a game clicking on the settings, the system shall open the settings menu.*

REQ-3.2: *Upon a user selecting the copy game button, the system shall open a new page showing all of the options for copying the game.*

REQ-3.3: *The user clicking create game, shall create a 1-1 copy of the original game that can be accessed.*

## *Roll Back Game*

5.4.1 Description and Priority

*A user of the system that is logged in, and has access/permissions to the game can roll back the game effectively undoing all changes made after a chosen date from the rollback menu. Priority = High.*

5.4.2 Stimulus/Response Sequences

Stimulus: *A logged-in user selects the “Settings” dropdown on a game page.*

Response: *The system shows all options for that game in a dropdown menu.*

Stimulus: *The user selects the “Roll Back Game” option from the menu.*

Response: *The system opens a pop-up window with a list of dates to roll the game back to.*

Stimulus: *The user selects a date and clicks the “Roll Back” button.*

Response: *All game changes, including assets, maps, lighting, and documents are reverted to their state at that selected date.*

Stimulus: *The user clicks on the x in the corner.*

Response: *The window is closed and no roll back is done.*

5.4.3 Functional Requirements

REQ-4.1: *Upon a logged-in user with access and permissions to a game clicking on the settings, the system shall open the settings menu.*

REQ-4.2: *Upon the user clicking on the “Roll Back Game” option, the system shall open up a pop-up window with the roll back options.*

REQ-4.3: *Upon selecting a date and clicking the “Roll Back” option, the system shall revert the game and all of its dependencies to the state they were in at the selected date.*

REQ-4.4: *Upon the user clicking on the x in the corner of the page, the system shall close the window and not make any changes to the game.*

## *Edit Handout*

5.5.1 Description and Priority

*A user with access to a document within the game itself, can open the document and make changes to its font, words, and settings. Priority = High.*

5.5.2 Stimulus/Response Sequences

Stimulus: *A logged-in user selects on a handout to be edited.*

Response: *The system opens the handout and grants permission to change all aspects of the handout.*

Stimulus: *The user selects the “Save Changes” option.*

Response: *The system saves all changes made in the handout and closes the window.*

Stimulus: *The user selects the “Cancel” button.*

Response: *The system closes the window without saving any changes made to the handout.*

5.5.3 Functional Requirements

REQ-5.1: *Upon a logged-in user with access and permissions selecting the “Edit Handout” button, the system shall open up an editable version of the handout.*

REQ-5.2: *The user clicking cancel, shall close the window and not save any changes made to the handout.*

REQ-5.3: *The user clicking save changes, shall close the window and keep all changes made to the handout.*

## *Delete Library Item*

5.6.1 Description and Priority

*A user with access to a game and the permissions required to access the library, deletes an audio or image file from the in-game library, clearing memory space and permanently removing that item until it is reuploaded. Priority = High.*

5.6.2 Stimulus/Response Sequences

Stimulus: *The user opens the “My Library” option from the system interface.*

Response: *The system opens a pop-up of all user imported material stored in the system.*

Stimulus: *The user clicks on all of the files to be deleted.*

Response: *The system highlights the files selected.*

Stimulus: *The user right-clicks on a file.*

Response: *The system shows all options available for the selected files.*

Stimulus: *The user selects the “Delete” option.*

Response: *The system shows a confirmation window.*

Stimulus: *The user confirms the deletion.*

Response: *The system removes the selected files.*

Stimulus: *The user selects the “Cancel” option.*

Response: *The system cancels the deletion.*

5.6.3 Functional Requirements

REQ-6.1: *Upon opening the users my library tab, the system shall show all files imported by the user.*

REQ-6.2: *The user right-clicking on a file, shall show all of the options for the selected file(s).*

REQ-6.3: *The user selecting delete, shall open a confirmation window for deletion.*

REQ-6.4: *The user pressing the confirm button, shall delete the selected file(s).*

REQ-6.5: *The user pressing the cancel button, shall close the deletion window.*

## *Turn a Sheet into a Non-Player Character (NPC) Sheet*

5.7.1 Description and Priority

*A user with access and permissions to a character sheet in-game enters the sheet settings and converts the sheet into a simpler format that is not meant for use by players beyond the Game Master. Priority = High.*

5.7.2 Stimulus/Response Sequences

Stimulus: *The user opens a character sheet.*

Response: *The system shows all attributes of the character sheet.*

Stimulus: *The user opens the character sheet settings.*

Response: *All settings that can alter the character sheets' basic functions are made visible and editable.*

Stimulus: *The user checks the “NPC” box in the settings.*

Response: *The character sheet is turned into an NPC sheet.*

5.7.3 Functional Requirements

REQ-7.1: *Upon opening the character sheet and going to the settings, the system shall show all attributes and basic functions of the character sheet that can be changed.*

REQ-7.2: *The user selecting the NPC check box, shall change the player character sheet into a non-player character sheet.*

## *Make a Document Visible to All Users*

5.8.1 Description and Priority

*A user with access and permissions to a document can make the document accessible and visible to all players in-game, this does not always grant the ability to edit, but does guarantee the ability to view all content pertaining to the sheet. Priority = Medium.*

5.8.2 Stimulus/Response Sequences

Stimulus: *The user right-clicks on a document in the in-game journal.*

Response: *The system shows all available options for that document.*

Stimulus: *The user selects the “Show to all players” option.*

Response: *The system opens a confirmation window for showing the document to all players/users.*

Stimulus: *The user confirms the showing of the document.*

Response: *The system gives all users access to the desired document(s).*

Stimulus: *The user cancels the showing of the document.*

Response: *The system closes the window without giving access to the document(s) to anyone.*

5.8.3 Functional Requirements

REQ-8.1: *Upon right-clicking on a document in the journal, the system shall show all options for the document.*

REQ-8.2: *The user selecting the show to all players option, shall open a confirmation window for the choice.*

REQ-8.3: *The user pressing confirm, shall show the selected document(s) to all players, giving them access to its contents and close the confirmation window.*

REQ-8.4: *The user pressing cancel, shall close the window and not grant access to anyone else.*

## *Create a Folder*

5.9.1 Description and Priority

*A user with access and permissions to edit the in-game journal creates a folder and labels it for organizational purposes. This folder can store character sheets, NPC sheets, handouts, and other folders. Priority = High.*

5.9.2 Stimulus/Response Sequences

Stimulus: *The user selects the “Add” button in the journal.*

Response: *The system shows all available documents that can be added.*

Stimulus: *The user selects the “Folder” option from the menu.*

Response: *A window to name the folder is opened.*

Stimulus: *The user enters a folder name and confirms the creation.*

Response: *A new folder is created in the journal.*

5.9.3 Functional Requirements

REQ-9.1: *Upon pressing the add button in the journal, the system shall present all options for new documents to be created.*

REQ-9.2: *The user pressing on the folder option, shall open a window to give the new folder a name.*

REQ-9.3: *The user pressing confirm on the creation of the folder, shall place the new folder into the journal where it can be accessed and have items added or removed.*

## *Sharing the Online Game*

5.10.1 Description and Priority

*The Game Host or Game Master creates a url link that gives those that use it access to an Online TTRPG game. This link can only be generated and sent off by the Game Host or Game Master. Priority = High.*

5.10.2 Stimulus/Response Sequences

Stimulus: *A logged-in user selects the “Invite Players” button.*

Response: *The system opens a window that allows for players to be invited to the game.*

Stimulus: *The user enters an email into the email section and presses the “Send the Invite” button.*

Response: *An invite to the game is sent to that email address.*

5.10.3 Functional Requirements

REQ-10.1: *Upon a logged-in user with access and permissions clicking on the invite players button, the system shall open a window with invite settings and information.*

REQ-10.2: *The user entering an email address into the email address section and pressing the send invite button, shall cause the recipient to get a URL link to the online game, granting them access to entering and playing the game.*

## 6. Nonfunctional Requirements

## 6.1 Performance

NF-1.1: *The system shall accommodate 15 users maximum within an individual TTRPG game, with no limit of overall users across the system to allow for wider spread usage by a larger populace.*

NF-1.2: *All Online TTRPGs created on this system, shall have their own private connection to the web, that will not be metered or throttled due to excess use by other users/TTRPGs in different locations.*

## 6.2 Security

NF-2.1: *The system shall provide all users with an account to log in with, this account will protect their identity and their personal TTRPG resources.*

NF-2.2: *The system shall request all users to verify their email for the recovery of accounts and resources.*

## 6.3 Quality

NF-3.1: *If a user/account loses access to their resources due to a system error, the Online TTRPG System shall reimburse the user for all paid content.*

NF-3.2: *The Online TTRPG System will store backups of all games daily, taking into account all changes made within the last 24 hours, and storing it on a privately accessible storage location on the user account.*