

Software Requirements Specifications

# Magic: The Gathering™ - Unofficial Collector’s Compendium

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Version: 1.1.0

Written: 05/26/2023

[GitHub Repository](https://github.com/CSmith1998/MagicTheGathering-UnofficialCollectorsCompendium)

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REVISIONS

Within this document, being the first in its series, no revisions to previous documents or plans are present. Instead, this version (v) of the Software Requirements Specifications (SRS) for the project of the working title “Magic: The Gathering™ - Unofficial Collector’s Compendium” shall set forth the first iteration of this documentation to act as a basis for any future changes or revisions.

# Revision Chart

|  |  |  |  |
| --- | --- | --- | --- |
| Version | Primary Author(s) | Description of Version | Date Completed |
| Draft | Caine Smith | Initial draft. Created for distribution and comment review. | 04/26/2023 |
| 1.1.0 | Caine Smith | First Revision. No major changes of note. | 05/26/2023 |

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INTRODUCTION

# Product Overview

This document shall set forth the groundwork for the project of working title “” (v). This product is intended to provide a software solution for card sorting and cataloguing, specifically for players of the popular trading card game “Magic: The Gathering™.” By the end of its lifecycle, this project should produce a Database, RESTful Web Service, and a fully-functioning Website (coded in ASP.NET MVC).

SPECIFIC REQUIREMENTS

# External Interface Requirements

The user interface for this project will exist in the sole form of a website, as further portions of the project are not to be accessible to the end users of this product. The separation of these ‘administrative’ portions of the project from the front-end product presented to users is of utmost importance for the protection of the safety and integrity of the data contained within.

Regarding the website that the users will interact with, there are a few consistent interface items that will be presented at most, if not all times. Of highest note of these items is the navigation bar, which will be present at the uppermost section of the webpage. This bar will include buttons and/or links that lead to the main sections of the application. Additionally, functional links that permit the user to login, logout, and register will also be present on the navbar, as is appropriate. Similar links and some site information will be presented in the footer at the bottom of the page as well. Finally, a help button should be presented for the user to see general support / documentation to aid users in making use of the site’s many functions and features.

Further interaction points of note include, but are not limited to, data entry forms to permit users to add, edit, and even delete cards within their personal collection, and search bars to seek out information from within the permitted repositories / collections.

# Software Product Features

## Landing Page

The home page of the website. This will be the first screen that new and returning users will see when entering the site. This page should describe the website’s purpose and engage the user.

### 1.1.1 Navigation Bar

Located at the top of every page, the Navigation Bar is the primary navigation method for the site as a whole. This asset should remain consistent throughout the website, with any alterations remaining minor and logical. All links and buttons should be appropriately styled and named to ensure user comprehension.

## Register Link

This link, located primarily on the Navigation Bar, leads users to the Registration Page and should be the first stop for any new users. The link should be displayed prominently so that users can easily locate it. An additional link should be provided on the Login page, in case a returning user finds themselves on this page mistakenly.

### 1.2.1 Registration Page

This page permits users to create an account for the site and should be the first step for all new users. Prominent features include the registration form which includes sections for a user to enter their email address, password, and, optionally, security questions. A link to the login screen should also be displayed here, for ease of navigation.

### 1.2.2 Email Confirmation

This screen consists primarily of one or more text-entry boxes for the new user to enter a confirmation code to prove ownership of the supplied email address. Successful registry of the -email address will provide a welcome message and either provide a link to the home page or redirect them automatically.

## Login Link

This link, located primarily on the Navigation Bar, leads users to the Login Page and should be the first stop for any returning users. The link should be displayed prominently so that users can easily locate it. An additional link should be provided on the Registration page, in case a new user finds themselves on this page mistakenly.

### 1.3.1 Login Page

This page permits users login to their account for the site and should be the first step for all returning users. Prominent features include the login form which includes sections for a user to enter their email address, password, and answer a captcha challenge. A link to the registration screen should also be displayed here, for ease of navigation.

### 1.3.2 Forgotten Password Link (Optional)

This link provides a method for users to attempt to reset and/or recover their password by sending a link to their registered email address containing either their original password, or a link to change their password.

### 1.3.3 Captcha

This section presents a simple challenge to the user to ensure that they are not a robot. On success, the intended action for the page shall proceed as expected. Otherwise, the user must attempt the challenge again until success is achieved before continuing.

### 1.3.4 Email Verification

Email verification will consist of either a verification link or a random number sent to the user’s email address to prove ownership of the email provided.

## 1.4 Search Cards (Optional)

On this page, users can search a repository of Magic: The Gathering™ cards freely, permitting them to find cards that might interest them. If implemented, this will be the only function that unregistered users can perform apart from visiting the home page, logging in, or registering.

### 1.4.1 Search Form

The search bar is the primary interface for users to interact with the card repository. By entering identifying information and clicking the search button, users can find any cards that match the description provided. Prominent search options include Card Name, Color, Type, Set, or Cost.

### 1.4.2 Card List

This list displays any and all cards found that match the information provided in the search form in a neat table. User’s can see further card details by selecting an item from the list.

## 1.5 Collection

Here, users can view their collection of cards and, optionally, search through the cards present within. Prominent features include the search form and the table of cards. The table will default to showing all cards within the user’s collection. Clicking an item in the list will show further details, including different version of the card that are present in the collection, their location, and more.

## 1.6 Admin Tools

This link, visible only to users utilizing an account with the administrator role or higher, leads to the Administrative Page, which contains a number of useful tools for admins of the site.

### 1.6.1 Role Management

The Role Management tab permits administrators to view and edit all users’ roles within the system.

### 1.6.2 Manage Users

The user management tab allows administrators to view further user details.

#### 1.6.2.1 Track Logins

This link on the user management tab, allows administrators to view the login/logout logs of a given user.

#### 1.6.2.2 Delete User

This link on the user management tab, allows administrators to delete the given user. Use with caution, this cannot be undone!

### 1.6.3 Usage Statistics

The usage statistics tab provides helpful data and details about site use that is useful to administrators and site owners.

#### 1.6.3.1 Average User Access Amount

This section displays the average number of times users access the site per week, month, and year.

#### 1.6.3.2 Average User Access Length

This section displays the average amount of time that users spend on the site by calculating the time between logging in and logging out.

# Software System Attributes

## Reliability

This project strives to create a resource for users that maintains the highest degree of reliability possible. Through the use of coding software and utilities that are both stable, and up-to-date, this product will reliably accomplish its designated tasks with the speed and accuracy expected of a product of its class.

## Availability

Through use of resources such as Azure Database to ensure constant access to data resources, the project aims to provide continuous access to its features and services apart from scheduled or emergency maintenance periods to address necessary security or feature updates.

## Security

Utilizing password hashing, encapsulation, and two-factor authentication, the security of user data, as well as administrative data, is to be upheld with the highest degree of protection that is possible. No user will be permitted direct access to the details of another user, with the exception of administrative tools for usage statistic purposes.

## Maintainability

Making use of maintainability best-practices such as project forks on GitHub, testing driven design, and modular coding practices, the project is anticipated to be especially easy to maintain, with the lowest impact to users possible. Updates will be tested on secure forks of the code and methods should be as non-specific as possible to reduce the occurrence of duplicate code and permit for faster, easier updates to the product. Documentation should also be maintained for the benefit of future coders and developers.

## Portability

As a web-based product, the project should be reasonably portable and accessible on most devices. However, it will be best viewed upon personal computers, as mobile-specific development will not be the primary focus of this project.

## Performance

Although limited by the necessity to access data from a database as well as a third-party source, it is important to be mindful of any code that could place an unreasonable amount of draw upon resources so that the user may experience the fastest, smoothest experience possible.

# Database Requirements

For this project, the database in use should meet the following list of requirements. The database should:

* Be readily available (Online)
* Store user data in a secure way (Password Hash)
* Follow 2nf or 3nf guidelines
* Be capable of storing a large amount of data

Additional requirements may be added at a later date.

ADDITIONAL MATERIAL