Software Requirements Specification

for

Scholastic Explorer

Version 1

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1 Introduction

1.1 Purpose

This Software Requirements Specification (SRS) is intended to delineate software requirements for the Scholastic Explorer. This SRS is intended to provide guidance to the developers of the system to implement required functionality, as well as the test team to develop appropriate Verification and Validation (V&V) plans and procedures required to demonstrate to the customer that the system was built to this specification.

1.2 Scope

This document specifies the requirements for the following capabilities:
1. A web application that allows users to search for academic papers and articles across various disciplines and sources.
2. Ensure that the search engine complies with relevant privacy and data protection regulations, such as GDPR and CCPA.
3. Provide options for users to save and share search results.
4. Provide tools for filtering and refining search results based on various criteria, such as author, publication date, and journal.

1.3 Definitions

Table 1 Acronyms and Definitions

Acronym	Meaning
SRS	Software Requirements Specification
V&V	Verification and Validation

1.4 References

1. IEEE Std 830-1998 - IEEE Recommended Practice for Software Requirements Specifications - Revision of IEEE Std 830-1993

1.5 Overview

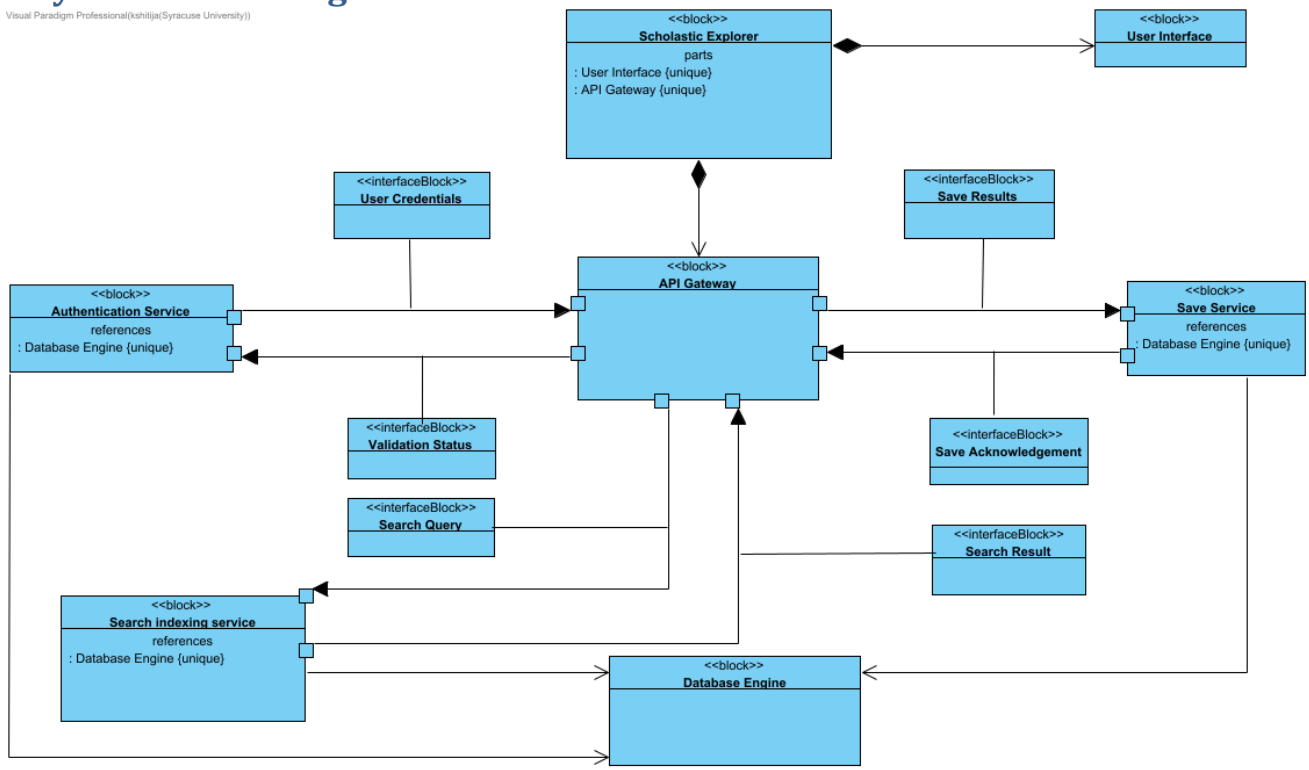
This document follows the recommended format specified in IEEE Std 830-1998 IEEE Recommended Practice for Software Specifications. For Section 3, the specific template A.5 for organizing information by feature is followed.

2 Overall Description

2.1 Product Perspective

A Scholastic Explorer can be viewed as a tool that satisfies the information needs of researchers, scholars, students, and other members of the academic community. The Scholastic Explorer should be designed to meet the specific requirements and preferences of its target users, who are likely to have advanced knowledge and expertise in their respective fields. This product provides a user-friendly interface that facilitates efficient and effective information retrieval, enabling users to quickly find relevant articles and papers based on their search queries.

1. System Block Diagram



The major components of an academic search engine include:

• Front End: The user-facing interface that allows users to input search queries, view results, and interact with the search engine. This component is responsible for presenting search results to the user in a clear and organized manner.

• Search: The component that processes user queries and retrieves matching documents from the database. This may involve complex natural language processing techniques to accurately identify relevant documents.

• Indexing & Ranking Engine: The component responsible for analyzing documents and creating an index that facilitates fast and efficient searching. It may also incorporate algorithms that rank results based on factors such as relevance, citation count, and recency.

• Database: The repository where academic documents and metadata are stored. This may include databases of scholarly articles, conference proceedings, books, and other relevant sources.

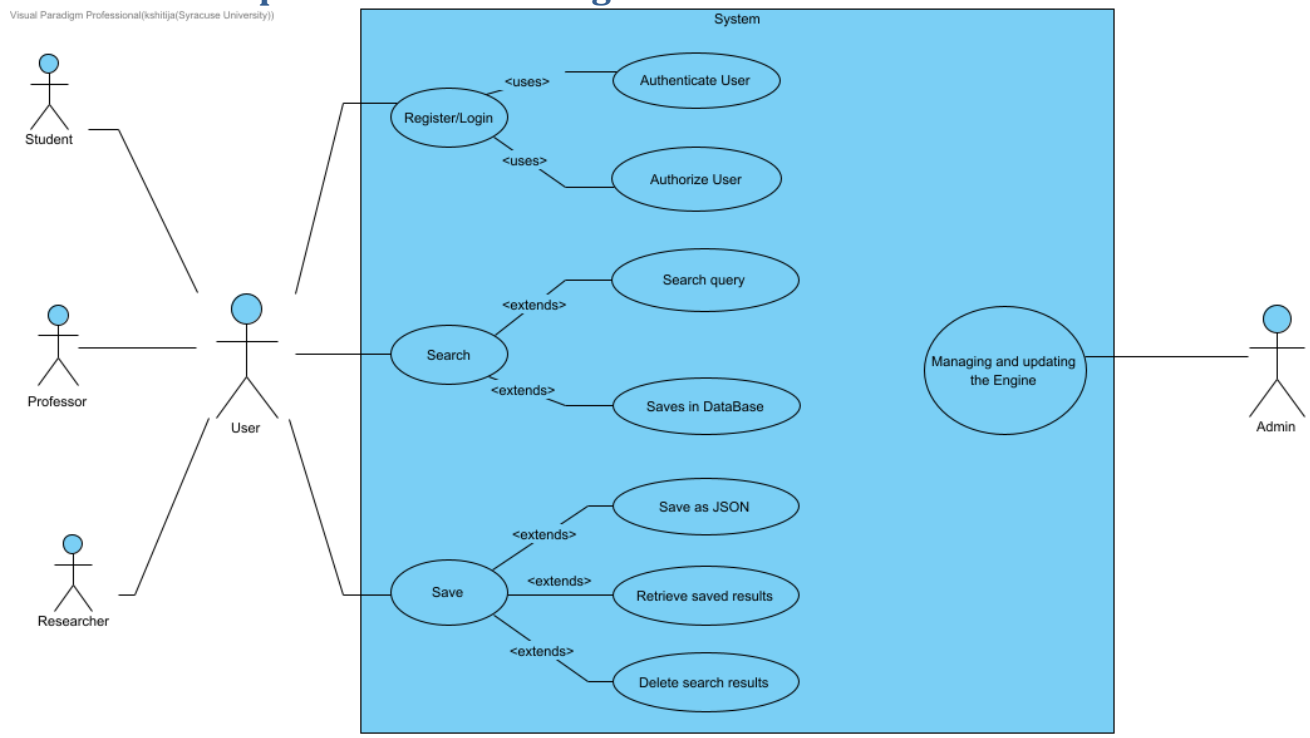
2.2 Product Functions

The following use case diagram depicts the users of the system, and the intended way in

which they will interact with the engine.

2.3 Use Case Descriptions

2. Scholastic Explorer Use Case Diagram



2.1. Admin

ID: AC05

2.1.1. Properties

Abstract	false
Leaf	false
Root	false

2.1.2. Relationships

Relationship	From	To
unnamed	Managing and updating the Engine	Admin

2.2. Authenticate User

ID: UC06

2.2.1. Details

Level	N/A
Complexity	N/A
Use Case Status	N/A
Implementation Status	N/A
Preconditions	N/A

Post-conditions	N/A
Author	N/A
Assumptions	N/A

2.2.2. Relationships

Relationship	From	To
<uses>	Register/Login	Authenticate User

2.3. Authorize User

ID: UC07

2.3.1. Details

Level	N/A
Complexity	N/A
Use Case Status	N/A
Implementation Status	N/A
Preconditions	N/A
Post-conditions	N/A
Author	N/A
Assumptions	N/A

2.3.2. Relationships

Relationship	From	To
<uses>	Register/Login	Authorize User

2.4. Delete search results

ID: UC10

2.4.1. Details

Level	N/A
Complexity	N/A
Use Case Status	N/A
Implementation Status	N/A
Preconditions	N/A
Post-conditions	N/A
Author	N/A
Assumptions	N/A

2.4.2. Relationships

Relationship	From	To
<extends>	Save	Delete search results

2.5. Managing and updating the Engine

ID: UC01

2.5.1. Primary Actors

Admin

2.5.2. Details

Level	N/A
Complexity	N/A
Use Case Status	N/A
Implementation Status	N/A
Preconditions	The system is operational. The administrator and content manager have appropriate permissions to manage and update the search engine.
Post-conditions	The search engine is configured with updated settings. Content within the system is indexed and searchable with enhanced accuracy. The search engine's performance is monitored and optimized regularly.
Author	N/A
Assumptions	A reliable indexing mechanism is assumed to be in place. Both the administrator and content manager have appropriate permissions.

2.5.3. Scenarios

Sunny Day Scenario

1. Smooth Configuration: The administrator effortlessly adjusts search engine settings, ensuring optimal performance.
2. Seamless Content Updates: The content manager adds and edits content without issues, ready for indexing.
3. Efficient Indexing: The search engine swiftly indexes updated content, maintaining up-to-date results.
4. Smooth Monitoring: The administrator monitors performance seamlessly, with no anomalies detected.
5. Continuous Optimization: Positive feedback guides minor adjustments for even better search results.

Rainy Day Scenario

1. Technical Challenges: Configuration delays occur due to system issues, but settings are eventually updated.
2. Content Management Struggles: Content updates face intermittent server issues, causing delays.
3. Indexing Delays: System instability leads to indexing delays, affecting search result timeliness.
4. Monitoring Difficulties: The administrator faces challenges accessing performance metrics, addressing issues promptly.
5. Adaptive Optimization: Despite challenges, user feedback drives collaborative efforts to address stability and performance, ensuring resilience in adverse conditions.

2.5.4. Requirements

Configurable Indexing Settings

ID: REQ007

The system should allow the administrators to configure indexing settings for the search engine

Content Versioning and Rollback

ID: REQ008

The system should support content versioning and rollback mechanisms to manage updates and revisions

Scheduled Maintenance and Updates
ID: REQ009
The system should support schedules maintenence and updates to ensure optimal performance and reliability

2.5.5. Relationships

Relationship	From	To
unnamed	Managing and updating the Engine	Configurable Indexing Settings
unnamed	Managing and updating the Engine	Content Versioning and Rollback
unnamed	Managing and updating the Engine	Scheduled Maintenance and Updates
unnamed	Managing and updating the Engine	Admin

2.6. Professor
ID: AC02

2.6.1. Properties

Abstract	false
Leaf	false
Root	false

2.6.2. Relationships

Relationship	From	To
unnamed	Professor	User

2.7. Register/Login
ID: UC02

2.7.1. Primary Actors
User

2.7.2. Details

Level	N/A
Complexity	N/A
Use Case Status	N/A
Implementation Status	N/A
Preconditions	• User has an internet connection and access to the • User has not already created an account on the Scholastic Explorer (for the registration scenario).
Post-conditions	Success Post Condition • Registration: User's account is created on the Scholastic Explorer and they

	are redirected to the login page. • Login: User is redirected to their personalized homepage or search results page. Failed Post Condition • Registration: User is unable to create an account due to invalid email or password, or any other errors in the registration process. • Login: User is unable to log in due to invalid email or password, or any other errors in the login process.
Author	N/A
Assumptions	• The Scholastic Explorer has a registration and login system in place. • The registration process requires a valid email address and password. • The login process requires a valid email address and password that has already been registered on the Scholastic Explorer.

2.7.3. Scenarios

Sunny Day Scenario

1. The user clicks on the "Register" button and enters their email address and a strong password in the registration form.
2. The Scholastic Explorer validates the email address and password, and if they are valid, creates a new account for the user and displays a success message.
3. The user logs in to their new account by clicking on the "Login" button and entering their email address and password.
4. The Scholastic Explorer validates the user's credentials and if they are valid, logs the user in and redirects them to their personalized homepage.
5. The user sees personalized search results and recommendations based on their search history and areas of interest.
6. The user ends the scenario.

Rainy Day Scenario

1. The user clicks on the "Register" button and enters their email address and a strong password in the registration form.The user clicks on the "Register" button and enters their email address and a weak or easily guessable password in the registration form.
2. The Scholastic Explorer detects that the password is weak or easily guessable and displays an error message asking the user to choose a stronger password.
3. The user tries to register again with a slightly stronger password, but it is still not strong enough according to the academic search engine's password policy.
4. The Scholastic Explorer displays another error message and provides guidelines on how to create a strong password.
5. The user creates a strong password and successfully registers on the academic search engine.
6. The user tries to log in using an incorrect email address or password, but the Scholastic Explorer displays an error message indicating that the credentials are incorrect.
7. The user resets their password by clicking on the "Forgot password?" link and entering their email address.
8. The Scholastic Explorer sends an email to the user with a link to reset their password.

9. The user clicks on the password reset link in the email and sets a new password for their account.

10. The user is able to log in successfully and ends the scenario.

11. The Scholastic Explorer validates the email address and password, and if they are valid, creates a new account for the user and displays a success message.

12. The user logs in to their new account by clicking on the "Login" button and entering their email address and password.

13. The Scholastic Explorer validates the user's credentials and if they are valid, logs the user in and redirects them to their personalized homepage.

14. The user sees personalized search results and recommendations based on their search history and areas of interest.

15. The user ends the scenario.

2.7.4. Requirements

Password
ID: REQ002
This is used to login in with their user ID

User ID
ID: REQ001
Each user should create a new User ID

2.7.5. Relationships

Relationship	From	To
<uses>	Register/Login	Authenticate User
<uses>	Register/Login	Authorize User
unnamed	Register/Login	User ID
unnamed	Register/Login	Password
unnamed	User	Register/Login

2.8. Researcher
ID: AC03

2.8.1. Properties

Abstract	false
Leaf	false
Root	false

2.8.2. Relationships

Relationship	From	To
unnamed	Researcher	User

2.9. Retrieve saved results
ID: UC12

2.9.1. Details

Level	N/A
Complexity	N/A
Use Case Status	N/A
Implementation Status	N/A
Preconditions	N/A
Post-conditions	N/A
Author	N/A
Assumptions	N/A

2.9.2. Relationships

Relationship	From	To
<extends>	Save	Retrieve saved results

2.10. Save

ID: UC04

2.10.1. Primary Actors

User

2.10.2. Details

Level	N/A
Complexity	N/A
Use Case Status	N/A
Implementation Status	N/A
Preconditions	User is logged in to their account on the Scholastic Explorer and has found an academic resource they want to save.
Post-conditions	Success Post Condition User is able to access the saved academic resource at a later time from their account on the Academic Search Engine. Failed Post Condition User is unable to find any relevant academic resources.
Author	N/A
Assumptions	User has the necessary permissions to save academic resources to their account.

2.10.3. Scenarios

Sunny Day Scenario

1. The user enters a search query in the search box.
2. The Scholastic Explorer returns a list of relevant scholarly articles, papers, and other publications based on the search query.
3. The user selects an article of interest from the search results.
4. The Scholastic Explorer displays the full text of the article or provides a link to the publisher's website where the article can be accessed.
5. The user clicks the "Save" button next to the article.

6. The Scholastic Explorer confirms that the article has been saved to the user's account.

Sunny Day Scenario 2

1. The user selects the "Saved Articles" tab in their account.
2. The Scholastic Explorer displays a list of all the articles that the user has saved.
3. The user selects the previously saved article.
4. The Scholastic Explorer displays the full text of the article or provides a link to the publisher's website where the article can be accessed.
5. The user reads the article and finds the information they were looking for.
6. The user ends the scenario.

Rainy Day Scenario

1. The user enters a search query in the search box.
2. The Scholastic Explorer returns a list of relevant scholarly articles, papers, and other publications based on the search query.
3. The user selects an article of interest from the search results.
4. The Scholastic Explorer displays the full text of the article or provides a link to the publisher's website where the article can be accessed.
5. The user tries to save the article, but the system displays an error message indicating that the save function is currently unavailable.
6. The user tries again after some time, but the error message persists.
7. The user decides to bookmark the article instead.
8. The user ends the scenario.

2.10.4. Requirements

Save Search Query

ID: REQ005

Users should be able to save their search query for future reference

Save Search Results

ID: REQ006

Users should have the ability to save specific search results for reference

2.10.5. Relationships

Relationship	From	To
<extends>	Save	Save as JSON
<extends>	Save	Retrieve saved results
<extends>	Save	Delete search results
unnamed	Save	Save Search Query
unnamed	Save	Save Search Results
unnamed	User	Save

2.11. Save as JSON

ID: UC11

2.11.1. Details

Level	N/A
Complexity	N/A
Use Case Status	N/A
Implementation Status	N/A
Preconditions	N/A
Post-conditions	N/A
Author	N/A
Assumptions	N/A

2.11.2. Relationships

Relationship	From	To
<extends>	Save	Save as JSON

2.12. Saves in DataBase

ID: UC09

2.12.1. Details

Level	N/A
Complexity	N/A
Use Case Status	N/A
Implementation Status	N/A
Preconditions	N/A
Post-conditions	N/A
Author	N/A
Assumptions	N/A

2.12.2. Relationships

Relationship	From	To
<extends>	Search	Saves in DataBase

2.13. Search

ID: UC03

2.13.1. Primary Actors

User

2.13.2. Details

Level	N/A
Complexity	N/A
Use Case Status	N/A
Implementation Status	N/A
Preconditions	User has an internet connection and access to the Scholastic Explorer
Post-conditions	Success Post Condition User is provided with a list of relevant academic articles, papers, and publications related to their search query. Failed Post Condition User is unable to find any relevant academic resources.
Author	N/A
Assumptions	Scholastic Explorer has indexed the relevant academic resources and the User enters appropriate search terms.

2.13.3. Scenarios

Sunny Day Scenario

1. The user enters a search query in the search box.
2. The Scholastic Explorer returns a list of relevant scholarly articles, papers, and other publications based on the search query.
3. The user selects an article of interest from the search results.
4. The Scholastic Explorer displays the full text of the article or provides a link to the publisher's website where the article can be accessed.
5. The user reads the article and finds the information they were looking for.
6. The user bookmarks the article or downloads a copy for future reference.
7. The user ends the scenario.

Rainy Day Scenario

1. The user enters a search query in the search box.
2. The Scholastic Explorer displays an error message indicating that no results were found for the search query.
3. The user tries different search terms but continues to receive the same error message.
4. The user checks their internet connection and confirms that it is working properly
5. The user ends the scenario.

2.13.4. Requirements

Advanced Search Filters
ID: REQ004
Users should have access to advanced search filters for search based on specific criteria

Search Result Presentation
ID: REQ003
Search results should be presented in a clear and organized manner for easy navigation

2.13.5. Relationships

Relationship	From	To
<extends>	Search	Search query
<extends>	Search	Saves in DataBase
unnamed	Search	Search Result Presentation
unnamed	Search	Advanced Search Filters
unnamed	User	Search

2.14. Search query
ID: UC08

2.14.1. Details

Level	N/A
Complexity	N/A
Use Case Status	N/A
Implementation Status	N/A
Preconditions	N/A
Post-conditions	N/A
Author	N/A
Assumptions	N/A

2.14.2. Relationships

Relationship	From	To
<extends>	Search	Search query

2.15. Student
ID: AC01

2.15.1. Properties

Abstract	false
Leaf	false
Root	false

2.15.2. Relationships

Relationship	From	To
unnamed	Student	User

2.16. System

2.16.1. Properties

Abstract	false
Leaf	false
Root	false

2.16.2. Children Summary

Name	Description
Authenticate User	
Authorize User	
Delete search results	
Managing and updating the Engine	
Register/Login	
Retrieve saved results	
Save	
Save as JSON	
Saves in DataBase	
Search	
Search query	

2.17. User

ID: AC04

2.17.1. Properties

Abstract	false
Leaf	false
Root	false

2.17.2. Relationships

Relationship	From	To
unnamed	User	Register/Login
unnamed	User	Search
unnamed	User	Save
unnamed	Student	User
unnamed	Professor	User
unnamed	Researcher	User

2.4 User Characteristics

- Students: Students are one of the primary users of scholastic explorers, as they use them to find scholarly articles, papers, and publications related to their coursework or research projects. They may have varying levels of experience with research, ranging from beginner to advanced.
- Researchers: Researchers use scholastic explorers to find relevant literature for their studies or to keep up to date with the latest research in their field. They are typically more experienced with research and may have more specialized needs.
- Academics: Academics use scholastic explorers to find research to support their own work or to review the work of others. They may also use these search engines to find articles for teaching or to identify potential collaborators.
- Professionals: Professionals in various fields may also use scholastic explorers to find information relevant to their work, such as healthcare professionals looking for medical research, or engineers looking for technical papers.
- General public: Some members of the general public may use scholastic explorers out of personal interest, such as reading up on a particular topic, or for educational purposes.
- Language and culture: Users may come from a variety of language backgrounds and cultures, so it's important for scholastic explorers to have multilingual and multicultural capabilities to serve diverse users.
- Technical proficiency: Users may have varying levels of technical proficiency, so it' important for scholastic explorers to have a user-friendly interface that is easy to navigate, regardless of the user's technical skills.

2.5 Constraints

These are defined specifically in Section 3.

3 Specific Requirements

3.1 Overview

A Scholastic Explorer is a specialized search engine that enables users to search for academic research papers and scholarly articles. These search engines index content from a range of sources, including academic journals, conference proceedings, dissertations, and other publications. The primary purpose of Scholastic Explorer is to help researchers find relevant literature quickly and easily. Academic search engines typically use complex algorithms to search and index academic literature, and they often allow users to filter results by a range of criteria, such as publication date, author, journal, and keywords. Academic search engines are valuable tools for researchers, students, and other professionals looking to stay up to date with the latest research in their fields. By providing easy access to a wealth of academic literature, these search engines help promote collaboration and innovation across a wide range of disciplines.

3.2 Interface Requirements

3.2.1 User Interfaces

3.2.1.1 The scholastic explorer user interface shall allow users to interact with the system via a web-based interface that is accessible from a computer or mobile device.

3.2.1.2 The search interface shall provide users with the ability to enter search terms and refine their searches using filters such as publication date, author, journal, and keyword.

3.2.1.3 The search interface shall provide users with a clear and concise summary of their search results, including relevant metadata such as title, author, journal, and publication date.

3.2.1.4 The search interface shall be designed with a clean and modern layout that is easy to navigate, with clear and concise labels and instructions for users.

3.2.1.5 The search interface shall include clear and concise error messages or notifications when search queries or other actions encounter issues or limitations.

3.2.1.6 The scholastic explorer user interface shall allow users to save the result.

3.2.2 Hardware Interfaces

3.2.2.1 The scholastic explorer shall require a stable internet connection with a minimum speed of 10 Mbps to ensure optimal performance.

3.2.2.2 The scholastic explorer shall be accessible from any device with a web browser, including desktop computers, laptops, tablets, and mobile phones.

3.2.2.3 The scholastic explorer shall require no additional hardware beyond standard input devices such as keyboards and mice or touchscreens.

3.2.2.4 The scholastic explorer shall require servers with sufficient processing power, memory, and storage capacity to handle large volumes of search queries and data processing tasks.

3.2.2.5 The scholastic explorer may use third-party services or platforms for hosting, data storage, or other purposes, which may require additional hardware or infrastructure requirements.

3.2.3 Software Interfaces

3.2.3.1 The scholastic explorer shall be accessible through a web browser, using standard web technologies such as HTML, CSS, and JavaScript.

3.2.3.2 The scholastic explorer shall use a variety of software tools and programming languages for data processing, indexing, and retrieval, such as Python, Java, and Apache.

3.2.3.3 The scholastic explorer may interface with third-party databases, repositories, or APIs for accessing and retrieving academic research data, such as PubMed, Google Scholar.

3.2.3.4 The scholastic explorer may use machine learning algorithms or natural language processing tools for improving search relevance and accuracy, or for identifying trends and patterns in academic research.

3.2.3.5 The scholastic explorer shall be designed with modularity and scalability in mind, allowing for easy integration of new features or updates to the system without disrupting its core functionality.

3.2.4 Communications Interfaces

3.2.4.1 The scholastic explorer shall communicate with users via standard internet protocols such as HTTP, HTTPS, and FTP.

3.2.4.2 The scholastic explorer may use APIs or other web services for accessing and retrieving data from external sources, such as scholarly publishers, research institutions, or government databases.

3.3 System Features

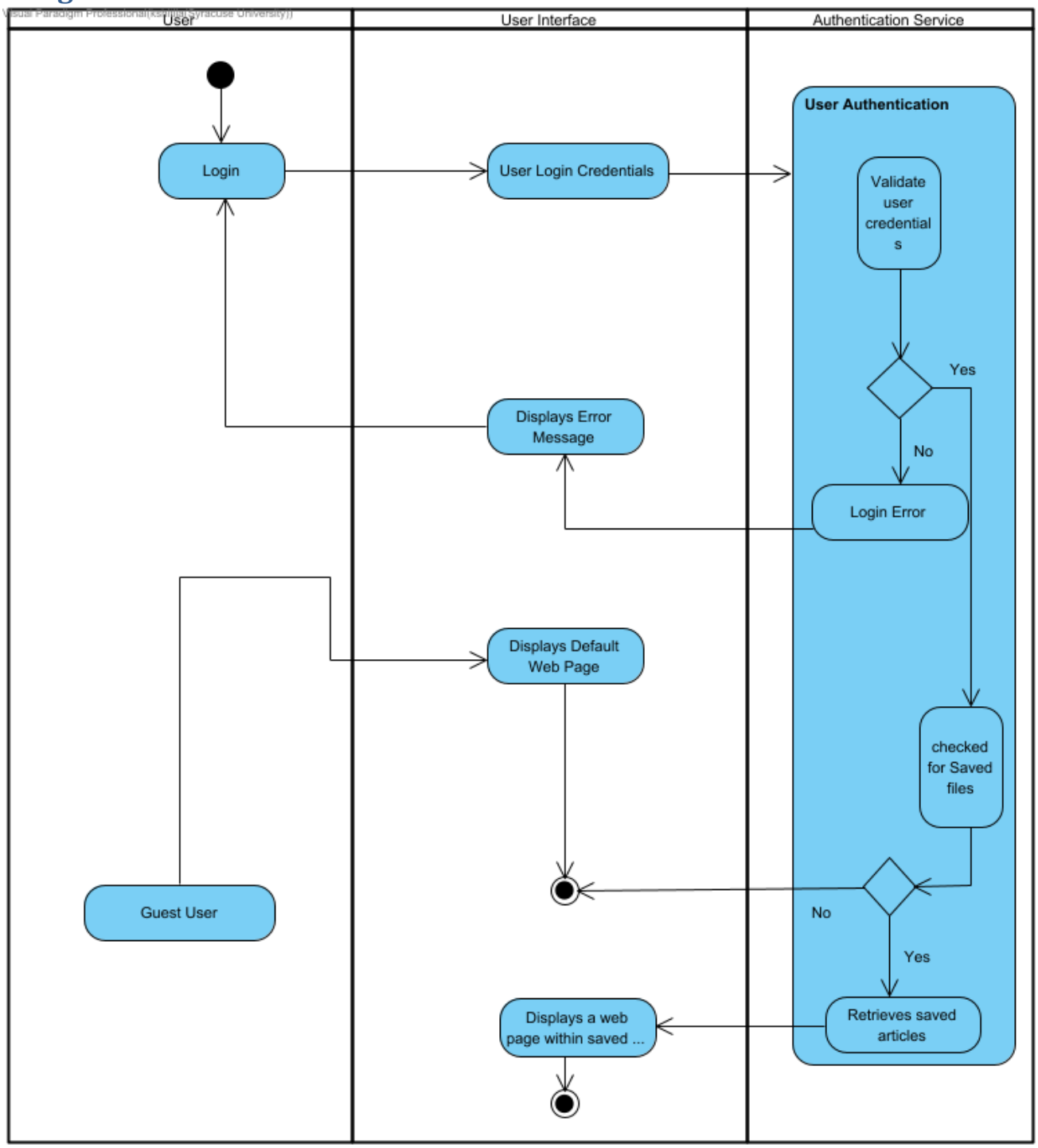
3.3.1 The system software supports the Use Cases described in Figure 2 Scholastic Explorer Use Cases.
3.3.1.1 SignUp/SignIn

3.3.1.1.1 Introduction/Purpose of Feature
The "Sign Up/Sign In" feature in a scholastic explorer allows users to create an account and log in to access personalized features such as saved searches, favorite resources, and citation management. This feature enables users to easily manage their research activities and save time in accessing frequently used resources.

3.3.1.1.2 Stimulus/Response Sequence

When a user clicks on the "Sign Up" or "Log In" button, the system will prompt the user to enter their email address and a password to create an account or to log in to an existing account. Once the user is logged in, they can access their personalized features and settings.

3. Login Activities



3.3.1.1.3 Associated Functional Requirements

3.3.1.1.3.1 The system shall provide a "Sign Up" and "Log In" button or interface for users to create an account or log in to an existing account.

3.3.1.1.3.2 The system shall require users to enter a valid email address and a password to create an account or log in to an existing account.

3.3.1.1.3.3 The system shall securely store and manage user account information and passwords.

3.3.1.1.3.4 The system shall allow users to access personalized features and settings after logging in, such as saved searches, favorite resources, and citation management.

3.3.1.1.3.5 The system shall allow users to log out of their account and securely end their session.

3.3.1.2 Search

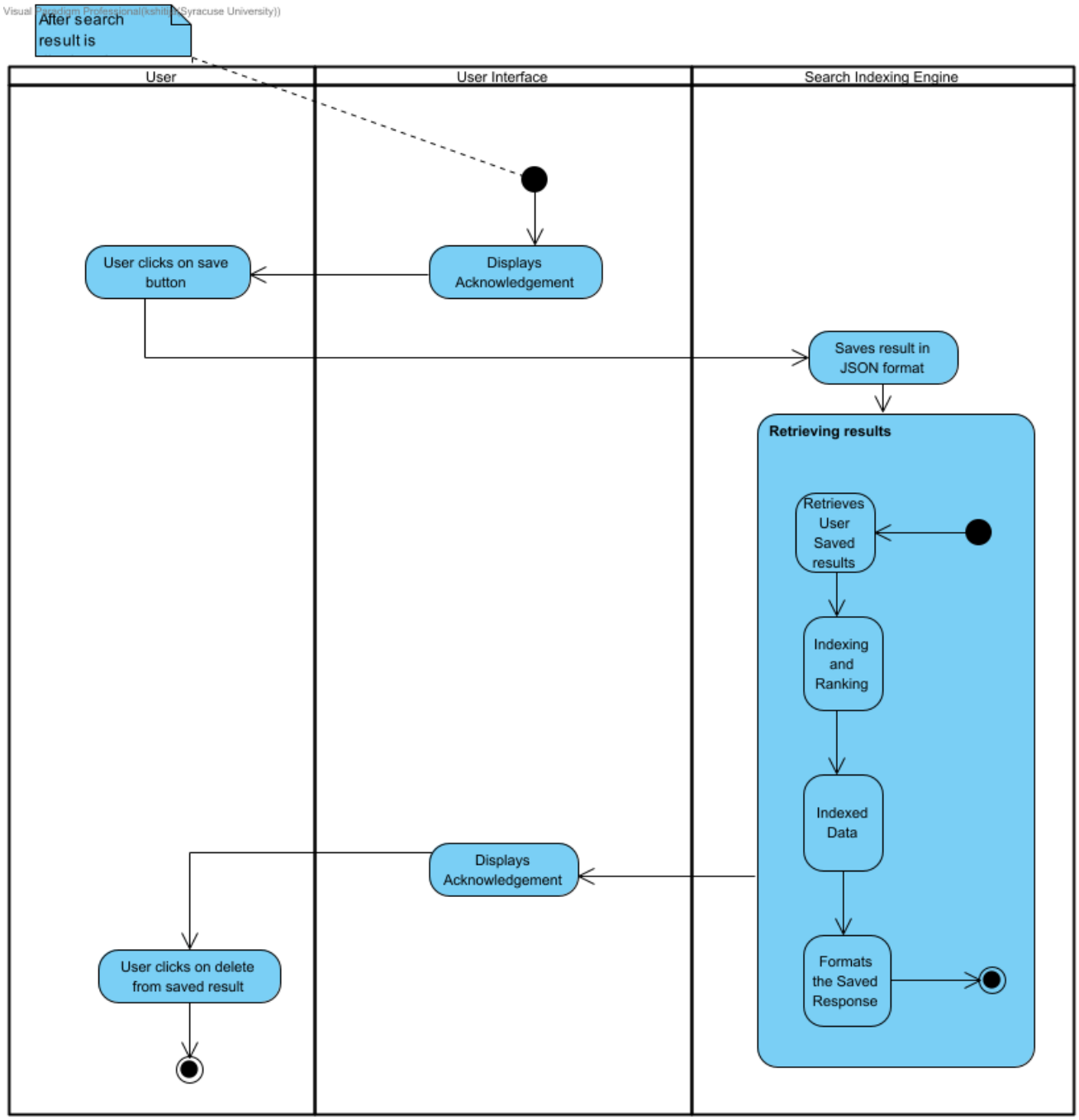
3.3.1.2.1 Introduction/Purpose of Feature

The "Search" feature in a scholastic explorer allows users to search for scholarly articles, papers, books, and other resources relevant to their research interests. This feature enables users to easily discover and access information that is most relevant to their needs.

3.3.1.2.2 Stimulus/Response Sequence

When a user enters a search query into the search bar, the system will display a list of results that match the query. The user can then click on a result to access the full resource or refine their search further based on suggested keywords or filters.

4. Search Activities



3.3.1.2.3 Associated Functional Requirements

3.3.1.2.3.1 The search engine shall provide a search bar or interface for users to enter search queries.

3.3.1.2.3.2 The system shall utilize an efficient and accurate search algorithm to retrieve relevant search results.

3.3.1.2.3.3 The system shall display search results in a clear and organized manner, with relevant metadata and preview information.

3.3.1.2.3.4 The system shall allow users to refine their search based on suggested keywords or filters, such as publication date or author.

3.3.1.2.3.5 The system shall allow users to export search results in JSON format.

3.3.1.3 Save

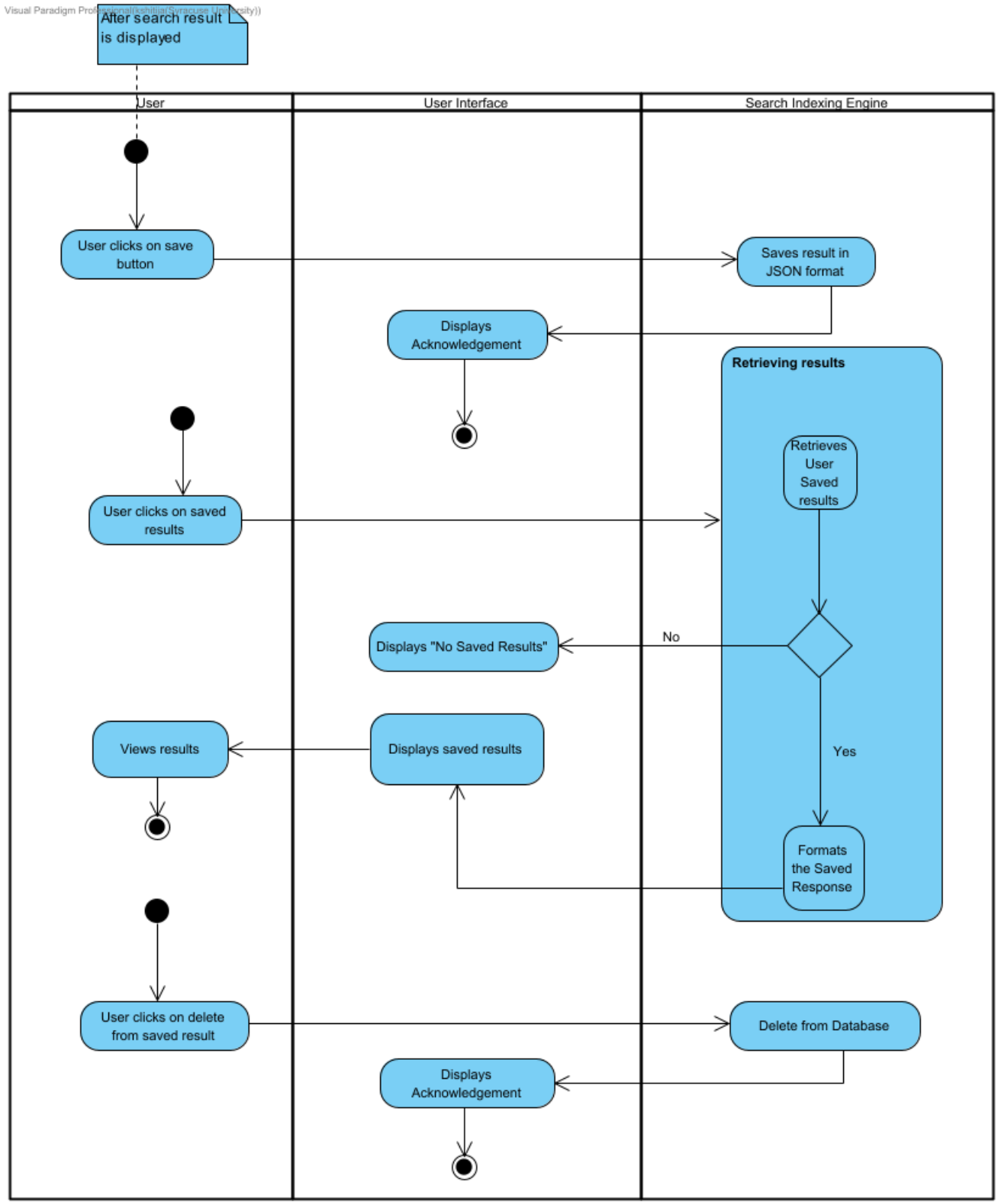
3.3.1.3.1 Introduction/Purpose of Feature

The "Save" feature in a Scholastic Explorer allows users to save articles, papers, or other resources of interest for future reference. This feature enables users to easily revisit their saved items later and keep track of their research progress.

3.3.1.3.2 Stimulus/Response Sequence

When a user identifies a resource, they wish to save, they can click on the "Save" button or icon associated with the item. The system will then save the item to the user's account or profile. Later, when the user wishes to access their saved items, they can navigate to their profile or a designated "Saved Items" section within the search engine, where they will be presented with a list of their saved resources.

5. Save Activities



3.3.1.3.3 Associated Functional Requirements

3.3.1.3.3.1 The search engine shall provide a "Save" button or icon for each search result or resource displayed.

3.3.1.3.3.2 The system shall require users to create an account or log in to save items.

3.3.1.3.3.3 The system shall allow users to categorize or tag their saved items for easy retrieval and organization.

3.3.1.3.3.4 The system shall enable users to view and access their saved items from any device with internet access.

3.3.1.3.3.5 The system shall provide options for users to share their saved items with others, such as colleagues or collaborators.

3.3.1.3.3.6 The system shall allow users to delete or remove saved items as needed.

3.4 Performance Requirements

3.4.1 The scholastic explorer shall retrieve search results within 2 seconds of theuser entering their query.

3.4.2 The scholastic explorer shall support simultaneous user queries and maintain system responsiveness and stability.

3.4.3 The scholastic explorer shall be able to index and search many academic research papers, articles, and publications from various sources.

3.4.4 The scholastic explorer shall have a high degree of scalability and availability and shall be able to handle many concurrent user requests without downtime or data loss.

3.5 Design Constraints

3.5.1 The software processing of the search engine shall allow a spare capacity of 50% for memory, CPU utilization and long-term storage (e.g. disk storage) to handle peak usage.

3.5.2 The scholastic explorer shall comply with industry standards and best practices, including but not limited to, the Open Archives Initiative Protocol for Metadata Harvesting (OAI-PMH), Dublin Core metadata, and the Simple Knowledge Organization System (SKOS).

3.5.3 The scholastic explorer shall provide accurate and relevant search results based on the user's search queries and shall utilize natural language processing (NLP) techniques to enhance the search experience.

3.5.4 The scholastic explorer shall be designed and developed with scalability in mind, to handle increasing amounts of data and users over time.

3.5.5 The scholastic explorer shall provide an intuitive user interface that allows users to easily navigate and filter search results based on various criteria, such as date, relevance, and citation count.

3.5.6 The scholastic explorer shall be able to support multiple academic languages to cater to all users, including but the following:

1. English
2. Spanish
3. French
4. German
5. Chinese
6. Japanese
7. Korean
8. Arabic

3.6 Software System Attributes

3.6.1 The software shall use SSL encryption for all data transmission to ensure secure data exchange between the client and the server.

3.6.2 The software shall conform to academic data protection regulations and comply with GDPR and COPPA laws to protect user privacy.

3.6.3 The software shall provide user authentication and authorization mechanisms to ensure that only authorized users can access and modify the system's configuration settings.

3.6.4 The software shall log all user activities, including search queries and results, to facilitate system diagnostics and improve search accuracy.

3.7 Other Requirements

N/A