1. Admin
ID: AC05

2. Professor
ID: AC02

3. Researcher
ID: AC03

4. Student
ID: AC01

5. Managing and updating the Engine
ID: UC01

5.1. Primary Actors
Admin

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.

5.3. Scenarios

5.3.1. 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.

5.3.2. 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.

5.4. Requirements

5.4.1. Configurable Indexing Settings

ID: REQ007

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

5.4.2. Content Versioning and Rollback

ID: REQ008

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

5.4.3. Scheduled Maintenance and Updates

ID: REQ009

The system should support schedules maintenence and updates to ensure optimal performance and reliability

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

6. Register/Login

ID: UC02

6.1. Primary Actors

User

6.2. 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.

6.3. Scenarios

6.3.1. 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.

6.3.2. 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.

6.4. Requirements

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

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

6.5. 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

7. Save
ID: UC04

7.1. Primary Actors
User

7.2. 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.

7.3. Scenarios

7.3.1. 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.

7.3.2. 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.

7.3.3. 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.

7.4. Requirements

### 7.4.1. Save Search Query
ID: REQ005
Users should be able to save their search query for future reference

📄 7.4.2. Save Search Results

ID: REQ006

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

7.5. 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

🔵8. Search

ID: UC03

8.1. Primary Actors

⚲ User

8.2. 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.

8.3. Scenarios

8.3.1. 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.

8.3.2. 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.

8.4. Requirements

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

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

8.5. 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

👤9. User
ID: AC04