Software Requirements Specification

Version 1.0

<<Annotated Version>>

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Student Credit Box System

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<<Any comments inside double brackets such as these are *not* part of this SRS but are comments upon this SRS example to help the reader understand the point being made.

Refer to the SRS Template for details on the purpose and rules for each section of this document.

>>

# Table of Contents

[Table of Contents i](#_Toc77487619)

[List of Figures ii](#_Toc77487620)

[1.0. Introduction 1](#_Toc77487621)

[1.1. Purpose 1](#_Toc77487622)

[1.2. Scope of Project 1](#_Toc77487623)

[1.3. Glossary 2](#_Toc77487624)

[1.4. References 2](#_Toc77487625)

[1.5. Overview of Document 2](#_Toc77487626)

[2.0. Overall Description 4](#_Toc77487627)

[2.1 System Environment 4](#_Toc77487628)

[2.2 Functional Requirements Specification 5](#_Toc77487629)

[2.2.1 Reader Use Case 5](#_Toc77487630)

[Use case: Search Article 5](#_Toc77487631)

[2.2.2 Author Use Case 6](#_Toc77487632)

[Use case: Submit Article 6](#_Toc77487633)

[2.2.3 Reviewer Use Case 7](#_Toc77487634)

[Use case: Submit Review 7](#_Toc77487635)

[2.2.4 Editor Use Cases 8](#_Toc77487636)

[Use case: Update Author 8](#_Toc77487637)

[Use case: Update Reviewer 9](#_Toc77487638)

[Use case: Update Article 9](#_Toc77487639)

[Use case: Receive Article 10](#_Toc77487640)

[Use case: Assign Reviewer 11](#_Toc77487641)

[Use case: Receive Review 11](#_Toc77487642)

[Use case: Check Status 12](#_Toc77487643)

[Use case: Send Response 12](#_Toc77487644)

[Use case: Send Copyright 13](#_Toc77487645)

[Use case: Remove Article 14](#_Toc77487646)

[Use case: Publish Article 14](#_Toc77487647)

[2.3 User Characteristics 15](#_Toc77487648)

[2.4 Non-Functional Requirements 15](#_Toc77487649)

[3.0. Requirements Specification 17](#_Toc77487650)

[3.1 External Interface Requirements 17](#_Toc77487651)

[3.2 Functional Requirements 17](#_Toc77487652)

[3.2.1 Search Article 17](#_Toc77487653)

[3.2.2 Communicate 18](#_Toc77487654)

[3.2.3 Add Author 18](#_Toc77487655)

[3.2.4 Add Reviewer 19](#_Toc77487656)

[3.2.5 Update Person 19](#_Toc77487657)

[3.2.6 Update Article Status 20](#_Toc77487658)

[3.2.7 Enter Communication 20](#_Toc77487659)

[3.2.8 Assign Reviewer 21](#_Toc77487660)

[3.2.9 Check Status 21](#_Toc77487661)

[3.2.10 Send Communication 22](#_Toc77487662)

[3.2.11 Publish Article 22](#_Toc77487663)

[3.2.12 Remove Article 23](#_Toc77487664)

[3.3 Detailed Non-Functional Requirements 23](#_Toc77487665)

[3.3.1 Logical Structure of the Data 23](#_Toc77487666)

[3.3.2 Security 25](#_Toc77487667)

[Index 26](#_Toc77487668)

# List of Figures

[Figure 1 - System Environment 4](#_Toc77487669)

[Figure 2 - Article Submission Process 6](#_Toc77487670)

[Figure 3 - Editor Use Cases 8](#_Toc77487671)

[Figure 4 - Logical Structure of the Article Manager Data 23](#_Toc77487672)

# 1.0. Introduction

## 1.1. Purpose

The aim of this file is to describe the system of student credit in the Al-Baath University and the basic and subsidiary requirements it needs, and to present the tasks that this system should present to meet all needs, as this file contains the expected period of completion of the project and its final delivery.

## 1.2. Scope of Project

This software system will be a student automation system in a student chase box. This system will be designed to maximize the speed of workflow by providing tools to help automate file review, which would otherwise be done manually. By increasing work efficiency, the system meets the employee's needs while still being easy to understand and use.

More specifically, this system is designed to allow employees to manage and communicate with a group of reviewers and authors to obtain and repay loans. The program will facilitate communication between employees and auditors. The system also contains a relational database containing a list of employees and auditors.

## 

## 1.3. Glossary

|  |  |
| --- | --- |
| **Term** | **Definition** |
| Active Article | The document that is tracked by the system; it is a narrative that is planned to be posted to the public website. |
| Author | Person submitting an article to be reviewed. In case of multiple authors, this term refers to the *principal author*, with whom all communication is made. |
| Database | Collection of all the information monitored by this system. |
| Editor | Person who receives articles, sends articles for review, and makes final judgments for publications. |
| Field | A cell within a form. |
| Historical Society Database | The existing membership database (also HS database). |
| Member | A member of the Historical Society listed in the HS database. |
| Reader | Anyone visiting the site to read articles. |
| Review | A written recommendation about the appropriateness of an article for publication; may include suggestions for improvement. |
| Reviewer | A person that examines an article and has the ability to recommend approval of the article for publication or to request that changes be made in the article. |
| Software Requirements Specification | A document that completely describes all of the functions of a proposed system and the constraints under which it must operate. For example, this document. |
| Stakeholder | Any person with an interest in the project who is not a developer. |
| User | Reviewer or Author. |

## 1.4. References

IEEE. *IEEE Std 830-1998 IEEE Recommended Practice for Software Requirements Specifications.* IEEE Computer Society, 1998.

## 1.5. Overview of Document

The next chapter, the Overall Description section, of this document gives an overview of the functionality of the product. It describes the informal requirements and is used to establish a context for the technical requirements specification in the next chapter.

The third chapter, Requirements Specification section, of this document is written primarily for the developers and describes in technical terms the details of the functionality of the product.

Both sections of the document describe the same software product in its entirety, but are intended for different audiences and thus use different language.

# 2.0. Overall Description

## 2.1 System Environment

employee

Treasurer

Editor

HS DB

Online Journal

Article Manager

Web Publishing System

Student

Figure - System Environment

The Web Publishing System has four active actors and one cooperating system.

The Author, Reader, or Reviewer accesses the Online Journal through the Internet. Any Author or Reviewer communication with the system is through email. The Editor accesses the entire system directly. There is a link to the (existing) Historical Society.

<< The division of the Web Publishing System into two component parts, the Online Journal and the Article Manager, is an example of using domain classes to make an explanation clearer. >>

## 2.2 Functional Requirements Specification

This section outlines the use cases for each of the active readers separately. The reader, the author and the reviewer have only one use case apiece while the editor is main actor in this system.

### 2.2.1 employe Use Case

#### Use case: Sign up for the loan

#### Monthly or computer

**Diagram:**

employe

Sign up for the loan

**Brief Description**

The employee arrives at the student credit office, and the employee records an application for the loan for him..

**Initial Step-By-Step Description**

1. Fill out the student's details

2. The employee verifies the conditions for accepting the sponsor.

3. The employee verifies that the student obtained the approval of student affairs

4. Organizing the employee's credit card

5. Grant the student a special number and an ATM card.

**Xref:** Section 3.2.1, Search Article

### 2.2.2 cashier Use Case

#### Use case: Pay off a loan Diagram:

cashier

Pay off a loan

**Brief description**

The student pays either the full amount or monthly, and the employee deducts the amount paid.

**Initial description step by step**

Before starting this use case, the cashier had already contacted the software on the Internet.

1. The employee enters the student number.

2. The software determines the type of loan to be repaid (computer / monthly).

3. Review student's premiums according to their number.

4. Calculating interest on late payment.

5 Deduction of the amount paid

6. Print a student receipt

**Xref:** Section 3.2.2, Communicate

### 2.2.3 Employee Use Case

#### Use case: A loan appeal

#### Diagram:

Employee

A loan appeal

**Brief Description**

The loan is automatically continued if the student succeeds, but in case of failure, the loan is suspended until the student succeeds and submits an appeal

**Initial Step-By-Step Description**

Before starting this use case, the employee had already contacted the software on the Internet.

1. The employee enters the student number.

2. The employee has verified the student’s success.

3. Register an appeal for this long-term credit card.

**Xref:** Section 3.2.2, Communicate

### 2.2.4 Editor Use Cases

The Editor has the following sets of use cases:

Figure - Editor Use Cases

Update Info

Editor

Handle Art

Ck Status

Send Rec

Publish Art

**Update Information use cases**

#### Use case: Update Author

Editor

Update Author

**Diagram:**

**Brief Description**

The Editor enters a new Author or updates information about a current Author.

**Initial Step-By-Step Description**

Before this use case can be initiated, the Editor has already accessed the main page of the Article Manager.

1. The Editor selects to *Add/Update Author*.
2. The system presents a choice of adding or updating.
3. The Editor chooses to add or to update.
4. If the Editor is updating an Author, the system presents a list of authors to choose from and presents a grid filling in with the information; else the system presents a blank grid.
5. The Editor fills in the information and submits the form.
6. The system verifies the information and returns the Editor to the Article Manager main page.

**Xref:** Section 3.2.3, Add Author; Section 3.2.5 Update Person

#### Use case: Update Reviewer

**Diagram:**

Editor

Update Reviewer

Hist Soc DB

**Brief Description**

The Editor enters a new Reviewer or updates information about a current Reviewer.

**Initial Step-By-Step Description**

Before this use case can be initiated, the Editor has already accessed the main page of the Article Manager.

1. The Editor selects to *Add/Update Reviewer*.
2. The system presents a choice of adding or updating.
3. The Editor chooses to add or to update.
4. The system links to the Historical Society Database.
5. If the Editor is updating a Reviewer, the system and presents a grid with the information about the Reviewer; else the system presents list of members for the editor to select a Reviewer and presents a grid for the person selected.
6. The Editor fills in the information and submits the form.
7. The system verifies the information and returns the Editor to the Article Manager main page.

**Xref:** Section 3.2.4, Add Reviewer; Section 3.2.5, Update Person

#### Use case: Update Article

**Diagram:**

Editor

Update Article

**Brief Description**

The Editor enters information about an existing article.

**Initial Step-By-Step Description**

Before this use case can be initiated, the Editor has already accessed the main page of the Article Manager.

1. The Editor selects to *Update Article*.
2. The system presents s list of active articles.
3. The system presents the information about the chosen article.
4. The Editor updates and submits the form.
5. The system verifies the information and returns the Editor to the Article Manager main page.

**Xref:** Section 3.2.6, Update Article Status

**Handle Article use cases**

#### Use case: Receive Article

Editor

Receive Article

**Diagram:**

**Brief Description**

The Editor enters a new or revised article into the system.

**Initial Step-By-Step Description**

Before this use case can be initiated, the Editor has already accessed the main page of the Article Manager and has a file containing the article available.

1. The Editor selects to *Receive Article*.
2. The system presents a choice of entering a new article or updating an existing article.
3. The Editor chooses to add or to update.
4. If the Editor is updating an article, the system presents a list of articles to choose from and presents a grid for filling with the information; else the system presents a blank grid.
5. The Editor fills in the information and submits the form.
6. The system verifies the information and returns the Editor to the Article Manager main page.

**Xref:** Section 3.2.7, Enter Communication

#### Use case: Assign Reviewer

This use case extends the *Update Article* use case.

**Diagram:**

Editor

Assign Reviewer

Hist Soc DB

**Brief Description**

The Editor assigns one or more reviewers to an article.

**Initial Step-By-Step Description**

Before this use case can be initiated, the Editor has already accessed the article using the *Update Article* use case.

1. The Editor selects to *Assign Reviewer*.
2. The system presents a list of Reviewers with their status (see data description is section 3.3 below).
3. The Editor selects a Reviewer.
4. The system verifies that the person is still an active member using the Historical Society Database.
5. The Editor repeats steps 3 and 4 until sufficient reviewers are assigned.
6. The system emails the Reviewers, attaching the article and requesting that they do the review.
7. The system returns the Editor to the *Update Article* use case.

**Xref:** Section 3.2.8, Assign Reviewer

#### Use case: Receive Review

Editor

Receive Review

This use case extends the *Update Article* use case.

**Diagram:**

**Brief Description**

The Editor enters a review into the system.

**Initial Step-By-Step Description**

Before this use case can be initiated, the Editor has already accessed the article using the *Update Article* use case.

1. The Editor selects to *Receive Review*.
2. The system presents a grid for filling with the information.
3. The Editor fills in the information and submits the form.
4. The system verifies the information and returns the Editor to the Article Manager main page.

**Xref:** Section 3.2.7, Enter Communication

**Check Status use case:**

#### Use case: Check Status

**Diagram:**

Editor

Check Status

**Brief Description**

The Editor checks the status of all active articles.

**Initial Step-By-Step Description**

Before this use case can be initiated, the Editor has already accessed the main page of the Article Manager.

1. The Editor selects to *Check Status*.
2. The system returns a scrollable list of all active articles with their status (see data description in section 3.3 below).
3. The system returns the Editor to the Article Manager main page.

**Xref:** Section 3.2.9, Check Status

**Send Recommendation use cases:**

#### Use case: Send Response

This use case extends the *Update Article* use case.

**Diagram:**

Editor

Send Response

**Brief Description**

The Editor sends a response to an Author.

**Initial Step-By-Step Description**

Before this use case can be initiated, the Editor has already accessed the article using the *Update Article* use case.

1. The Editor selects to *Send Response*.
2. The system calls the email system and puts the Author’s email address in the Recipient line and the name of the article on the subject line.
3. The Editor fills out the email text and sends the message.
4. The system returns the Editor to the Article Manager main page.

**Xref:** Section 3.210, Send Communication

#### Use case: Send Copyright

This use case extends the *Update Article* use case.

**Diagram:**

**Brief Description**

Editor

Send Copyright

The Editor sends a copyright form to an Author.

**Initial Step-By-Step Description**

Before this use case can be initiated, the Editor has already accessed the article using the *Update Article* use case.

1. The Editor selects to *Send Copyright*.
2. The system calls the email system and puts the Author’s email address in the Recipient line, the name of the article on the subject line, and attaches the copyright form.
3. The Editor fills out the email text and sends the message.
4. The system returns the Editor to the Article Manager main page.

**Xref:** Section 3.2.10, Send Communication

#### Use case: Remove Article

This use case extends the *Update Article* use case.

Editor

Remove Article

**Diagram:**

**Brief Description**

The Editor removes an article from the active category.

**Initial Step-By-Step Description**

Before this use case can be initiated, the Editor has already accessed the article using the *Update Article* use case.

1. The Editor selects to remove an article from the active database.
2. The system provides a list of articles with the status of each.
3. The Editor selects an article for removal.
4. The system removes the article from the active article database and returns the Editor to the Article Manager main page.

**Xref:** Section 3.2.12, Remove Article

**Publish Article use case:**

#### Use case: Publish Article

This use case extends the *Update Article* use case.

Editor

Publish Article

**Diagram:**

**Brief Description**

The Editor transfers an accepted article to the Online Journal.

**Initial Step-By-Step Description**

Before this use case can be initiated, the Editor has already accessed the article using the *Update Article* use case.

1. The Editor selects to *Publish Article*.
2. The system transfers the article to the Online Journal and updates the search information there.
3. The system removes the article from the active article database and returns the Editor to the Article Manager home page.

**Xref:** Section 3.2.11, Publish Article

<< Since three of the actors only have one use case each, the summary diagram only involves the Editor. Adapt the rules to the needs of the document rather than adapt the document to fit the rules. >>

## 2.3 User Characteristics

The Reader is expected to be Internet literate and be able to use a search engine. The main screen of the Online Journal Website will have the search function and a link to “Author/Reviewer Information.”

The Author and Reviewer are expected to be Internet literate and to be able to use email with attachments.

The Editor is expected to be Windows literate and to be able to use button, pull-down menus, and similar tools.

The detailed look of these pages is discussed in section 3.2 below.

## 2.4 Non-Functional Requirements

The Online Journal will be on a server with high speed Internet capability. The physical machine to be used will be determined by the Historical Society. The software developed here assumes the use of a tool such as Tomcat for connection between the Web pages and the database. The speed of the Reader’s connection will depend on the hardware used rather than characteristics of this system.

The Article Manager will run on the editor’s PC and will contain an Access database. Access is already installed on this computer and is a Windows operating system.

# 3.0. Requirements Specification

## 3.1 External Interface Requirements

The only link to an external system is the link to the Historical Society (HS) Database to verify the membership of a Reviewer. The Editor believes that a society member is much more likely to be an effective reviewer and has imposed a membership requirement for a Reviewer. The HS Database fields of interest to the Web Publishing Systems are member’s name, membership (ID) number, and email address (an optional field for the HS Database).

The *Assign Reviewer* use case sends the Reviewer ID to the HS Database and a Boolean is returned denoting membership status. The *Update Reviewer* use case requests a list of member names, membership numbers and (optional) email addresses when adding a new Reviewer. It returns a Boolean for membership status when updating a Reviewer.

## 3.2 Functional Requirements

The Logical Structure of the Data is contained in Section 3.3.1.

### 3.2.1 Search Article

|  |  |
| --- | --- |
| **Use Case Name** | Search Article |
| **XRef** | Section 2.2.1, Search Article  SDD, Section 7.1 |
| **Trigger** | The Reader assesses the Online Journal Website |
| **Precondition** | The Web is displayed with grids for searching |
| **Basic Path** | 1. The Reader chooses how to search the Web site. The choices are by Author, by Category, and by Keyword. 2. If the search is by Author, the system creates and presents an alphabetical list of all authors in the database. In the case of an article with multiple authors, each is contained in the list. 3. The Reader selects an author. 4. The system creates and presents a list of all articles by that author in the database. 5. The Reader selects an article. 6. The system displays the Abstract for the article. 7. The Reader selects to download the article or to return to the article list or to the previous list. |
| **Alternative Paths** | In step 2, if the Reader selects to search by category, the system creates and presents a list of all categories in the database.   1. The Reader selects a category. 2. The system creates and presents a list of all articles in that category in the database. Return to step 5.   In step 2, if the Reader selects to search by keyword, the system presents a dialog box to enter the keyword or phrase.   1. The Reader enters a keyword or phrase. 2. The system searches the Abstracts for all articles with that keyword or phrase and creates and presents a list of all such articles in the database. Return to step 5. |
| **Postcondition** | The selected article is downloaded to the client machine. |
| **Exception Paths** | The Reader may abandon the search at any time. |
| **Other** | The categories list is generated from the information provided when article are published and not predefined in the Online Journal database. |

### 3.2.2 Communicate

|  |  |
| --- | --- |
| **Use Case Name** | Communicate |
| **XRef** | Section 2.2.2, Submit Article; Section 2.2.3, Submit Review  SDD, Section 7.2 |
| **Trigger** | The user selects a *mailto* link. |
| **Precondition** | The user is on the *Communicate* page linked from the Online Journal Main Page. |
| **Basic Path** | This use case uses the *mailto* HTML tag. This invokes the client email facility. |
| **Alternative Paths** | If the user prefers to use his or her own email directly, sufficient information will be contained on the Web page to do so. |
| **Postcondition** | The message is sent. |
| **Exception Paths** | The attempt may be abandoned at any time. |
| **Other** | None |

### 3.2.3 Add Author

|  |  |
| --- | --- |
| **Use Case Name** | Add Author |
| **XRef** | Section 2.2.4, Update Author  SDD, Section 7.3 |
| **Trigger** | The Editor selects to add a new author to the database. |
| **Precondition** | The Editor has accessed the Article Manager main screen. |
| **Basic Path** | 1. The system presents a blank grid to enter the author information. 2. The Editor enters the information and submits the form. 3. The system checks that the name and email address fields are not blank and updates the database. |
| **Alternative Paths** | If in step 2, either field is blank, the Editor is instructed to add an entry. No validation for correctness is made. |
| **Postcondition** | The Author has been added to the database. |
| **Exception Paths** | The Editor may abandon the operation at any time. |
| **Other** | The author information includes the name mailing address and email address. |

### 3.2.4 Add Reviewer

|  |  |
| --- | --- |
| **Use Case Name** | Add Reviewer |
| **XRef** | Section 2.2.4, Update Reviewer  SDD, Section 7.4 |
| **Trigger** | The Editor selects to add a new reviewer to the database. |
| **Precondition** | The Editor has accessed the Article Manager main screen. |
| **Basic Path** | 1. The system accesses the Historical Society (HS) database and presents an alphabetical list of the society members. 2. The Editor selects a person. 3. The system transfers the member information from the HS database to the Article Manager (AM) database. If there is no email address in the HS database, the editor is prompted for an entry in that field. 4. The information is entered into the AM database. |
| **Alternative Paths** | In step 3, if there is no entry for the email address in the HS database or on this grid, the Editor will be reprompted for an entry. No validation for correctness is made. |
| **Postcondition** | The Reviewer has been added to the database. |
| **Exception Paths** | The Editor may abandon the operation at any time. |
| **Other** | The Reviewer information includes name, membership number, mailing address, categories of interest, and email address. |

### 3.2.5 Update Person

|  |  |
| --- | --- |
| **Use Case Name** | Update Person |
| **XRef** | Sec 2.2.4 Update Author; Sec 2.2.4 Update Reviewer  SDD, Section 7.5 |
| **Trigger** | The Editor selects to update an author or reviewer and the person is already in the database. |
| **Precondition** | The Editor has accessed the Article Manager main screen. |
| **Basic Path** | 1. The Editor selects Author or Reviewer. 2. The system creates and presents an alphabetical list of people in the category. 3. The Editor selects a person to update. 4. The system presents the database information in grid form for modification. 5. The Editor updates the information and submits the form. 6. The system checks that required fields are not blank. |
| **Alternative Paths** | In step 5, if any required field is blank, the Editor is instructed to add an entry. No validation for correctness is made. |
| **Postcondition** | The database has been updated. |
| **Exception Paths** | If the person is not already in the database, the use case is abandoned. In addition, the Editor may abandon the operation at any time. |
| **Other** | This use case is not used when one of the other use cases is more appropriate, such as to add an article or a reviewer for an article. |

### 3.2.6 Update Article Status

|  |  |
| --- | --- |
| **Use Case Name** | Update Article Status |
| **XRef** | Section 2.2.4, Update Article  SDD, Section 7.6 |
| **Trigger** | The Editor selects to update the status of an article in the database. |
| **Precondition** | The Editor has accessed the Article Manager main screen and the article is already in the database. |
| **Basic Path** | 1. The system creates and presents an alphabetical list of all active articles. 2. The Editor selects the article to update. 3. The system presents the information about the article in grid format. 4. The Editor updates the information and resubmits the form. |
| **Alternative Paths** | In step 4, the use case *Enter Communication* may be invoked. |
| **Postcondition** | The database has been updated. |
| **Exception Paths** | If the article is not already in the database, the use case is abandoned. In addition, the Editor may abandon the operation at any time. |
| **Other** | This use case can be used to add categories for an article, to correct typographical errors, or to remove a reviewer who has missed a deadline for returning a review. It may also be used to allow access to the named use case to enter an updated article or a review for an article. |

### 3.2.7 Enter Communication

|  |  |
| --- | --- |
| **Use Case Name** | Enter Communication |
| **XRef** | Section 2.2.4, Receive Article; Section 2.2.4, Receive Review  SDD, Section 7.7 |
| **Trigger** | The Editor selects to add a document to the system. |
| **Precondition** | The Editor has accessed the Article Manager main screen and has the file of the item to be entered available. |
| **Basic Path** | 1. The Editor selects the article using the *3.2.6, Update Article Status* use case. 2. The Editor attaches the file to the grid presented and updates the respective information about the article. 3. When the Editor updates the article status to indicate that a review is returned, the respective entry in the Reviewer table is updated. |
| **Alternative Paths** | None |
| **Postcondition** | The article entry is updated in the database. |
| **Exception Paths** | The Editor may abandon the operation at any time. |
| **Other** | This use case extends *3.2.6, Update Article Status* |

### 3.2.8 Assign Reviewer

|  |  |
| --- | --- |
| **Use Case Name** | Assign Reviewer |
| **XRef** | Section 2.2.4, Assign Reviewer  SDD, Section 7.8 |
| **Trigger** | The Editor selects to assign a reviewer to an article. |
| **Precondition** | The Editor has accessed the Article Manager main screen and the article is already in the database. . |
| **Basic Path** | 1. The Editor selects the article using the *3.2.6, Update Article Status* use case. 2. The system presents an alphabetical list of reviewers with their information. 3. The Editor selects a reviewer for the article. 4. The system updates the article database entry and emails the reviewer with the standard message and attaches the text of the article without author information. 5. The Editor has the option of repeating this use case from step 2. |
| **Alternative Paths** | None. |
| **Postcondition** | At least one reviewer has been added to the article information and the appropriate communication has been sent. |
| **Exception Paths** | The Editor may abandon the operation at any time. |
| **Other** | This use case extends *3.2.6, Update Article Status.* The Editor, prior to implementation of this use case, will provide the message text. |

### 3.2.9 Check Status

|  |  |
| --- | --- |
| **Use Case Name** | Check Status |
| **XRef** | Section 2.2.4, Check Status  SDD, Section 7.9 |
| **Trigger** | The Editor has selected to check status of all active articles. |
| **Precondition** | The Editor has accessed the Article Manager main screen. |
| **Basic Path** | 1. The system creates and presents a list of all active articles organized by their status. 2. The Editor may request to see the full information about an article. |
| **Alternative Paths** | None. |
| **Postcondition** | The requested information has been displayed. |
| **Exception Paths** | The Editor may abandon the operation at any time. |
| **Other** | The editor may provide an enhanced list of status later. At present, the following categories must be provided:   1. Received but no further action taken 2. Reviewers have been assigned but not all reviews are returned (include dates that reviewers were assigned and order by this criterion). 3. Reviews returned but no further action taken. 4. Recommendations for revision sent to Author but no response as of yet. 5. Author has revised article but no action has been taken. 6. Article has been accepted and copyright form has been sent. 7. Copyright form has been returned but article is not yet published.   A published article is automatically removed from the active article list. |

### 3.2.10 Send Communication

|  |  |
| --- | --- |
| **Use Case Name** | Send Communication |
| **XRef** | Section 2.2.4, Send Response; Section 2.2.4, Send Copyright  SDD, Section 7.10 |
| **Trigger** | The editor selects to send a communication to an author. |
| **Precondition** | The Editor has accessed the Article Manager main screen. |
| **Basic Path** | 1. The system presents an alphabetical list of authors. 2. The Editor selects an author. 3. The system invokes the Editor’s email system entering the author’s email address into the *To:* entry. 4. The Editor uses the email facility. |
| **Alternative Paths** | None. |
| **Postcondition** | The communication has been sent. |
| **Exception Paths** | The Editor may abandon the operation at any time. |
| **Other** | The standard copyright form will be available in the Editor’s directory for attaching to the email message, if desired. |

### 3.2.11 Publish Article

|  |  |
| --- | --- |
| **Use Case Name** | Publish Article |
| **XRef** | Section 2.2.4, Publish Article  SDD, Section 7.11 |
| **Trigger** | The Editor selects to transfer an approved article to the Online Journal. |
| **Precondition** | The Editor has accessed the Article Manager main screen. |
| **Basic Path** | 1. The system creates and presents an alphabetical list of the active articles that are flagged as having their copyright form returned. 2. The Editor selects an article to publish. 3. The system accesses the Online Database and transfers the article and its accompanying information to the Online Journal database. 4. The article is removed from the active article database. |
| **Alternative Paths** | None. |
| **Postcondition** | The article is properly transferred. |
| **Exception Paths** | The Editor may abandon the operation at any time. |
| **Other** | Find out from the Editor to see if the article information should be archived somewhere. |

### 3.2.12 Remove Article

|  |  |
| --- | --- |
| **Use Case Name** | Remove Article |
| **XRef** | Section 2.2.4, Remove Article  SDD, Section 7.12 |
| **Trigger** | The Editor selects to remove an article from the active article database. |
| **Precondition** | The Editor has accessed the Article Manager main screen. |
| **Basic Path** | 1. The system provides an alphabetized list of all active articles. 2. The editor selects an article. 3. The system displays the information about the article and requires that the Editor confirm the deletion. 4. The Editor confirms the deletion. |
| **Alternative Paths** | None. |
| **Postcondition** | The article is removed from the database. |
| **Exception Paths** | The Editor may abandon the operation at any time. |
| **Other** | Find out from the Editor to see if the article and its information information should be archived somewhere. |

## 3.3 Detailed Non-Functional Requirements

### 3.3.1 Logical Structure of the Data

The logical structure of the data to be stored in the internal Article Manager database is given below.

Review

Reviewer

Article

Author

writes

sent to

writes

has

Figure - Logical Structure of the Article Manager Data

The data descriptions of each of these data entities is as follows:

**Author Data Entity**

|  |  |  |  |
| --- | --- | --- | --- |
| **Data Item** | **Type** | **Description** | **Comment** |
| Name | Text | Name of principle author |  |
| Email Address | Text | Internet address |  |
| Article | Pointer | Article entity | May be several |

**Reviewer Data Entity**

|  |  |  |  |
| --- | --- | --- | --- |
| **Data Item** | **Type** | **Description** | **Comment** |
| Name | Text | Name of principle author |  |
| ID | Integer | ID number of Historical Society member | Used as key in Historical Society Database |
| Email Address | Text | Internet address |  |
| Article | Pointer | Article entity of | May be several |
| Num Review | Integer | Review entity | Number of not returned reviews |
| History | Text | Comments on past performance |  |
| Specialty | Category | Area of expertise | May be several |

**Review Data Entity**

|  |  |  |  |
| --- | --- | --- | --- |
| **Data Item** | **Type** | **Description** | **Comment** |
| Article | Pointer | Article entity |  |
| Reviewer | Pointer | Reviewer entity | Single reviewer |
| Date Sent | Date | Date sent to reviewer |  |
| Returned | Date | Date returned; null if not returned |  |
| Contents | Text | Text of review |  |

**Article Data Entity**

|  |  |  |  |
| --- | --- | --- | --- |
| **Data Item** | **Type** | **Description** | **Comment** |
| Name | Text | Name of Article |  |
| Author | Pointer | Author entity | Name of principle author |
| Other Authors | Text | Other authors is any; else null | Not a pointer to an Author entity |
| Reviewer | Pointer | Reviewer entity | Will be several |
| Review | Pointer | Review entity | Set up when reviewer is set up |
| Contents | Text | Body of article | Contains Abstract as first paragraph. |
| Category | Text | Area of content | May be several |
| Accepted | Boolean | Article has been accepted for publication | Needs Copyright form returned |
| Copyright | Boolean | Copyright form has been returned | Not relevant unless Accepted is True. |
| Published | Boolean | Sent to Online Journal | Not relevant unless Accepted is True. Article is no longer active and does not appear in status checks. |

The Logical Structure of the data to be stored in the Online Journal database on the server is as follows:

**Published Article Entity**

|  |  |  |  |
| --- | --- | --- | --- |
| **Data Item** | **Type** | **Description** | **Comment** |
| Name | Text | Name of Article |  |
| Author | Text | Name of one Author | May be several |
| Abstract | Text | Abstract of article | Used for keyword search |
| Content | Text | Body of article |  |
| Category | Text | Area of content | May be several |

### 3.3.2 Security

The server on which the Online Journal resides will have its own security to prevent unauthorized *write*/*delete* access. There is no restriction on *read* access. The use of email by an Author or Reviewer is on the client systems and thus is external to the system.

The PC on which the Article Manager resides will have its own security. Only the Editor will have physical access to the machine and the program on it. There is no special protection built into this system other than to provide the editor with *write* access to the Online Journal to publish an article.

# Index

Abstract, 6, 17, 27

add, 9, 11, 19, 20, 21

Add, 8, 9, 19

Article, 1, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28

Article Manager, 5, 8, 9, 10, 11, 12, 13, 14, 15, 16, 19, 20, 21, 22, 23, 24, 25, 28

Author, 1, 4, 5, 6, 7, 8, 9, 13, 14, 16, 17, 19, 20, 22, 23, 25, 26, 27

Category, 5, 14, 17, 18, 20, 21, 23, 26, 27

Database, 2, 9, 11, 14, 15, 16, 17, 18, 19, 20, 21, 22, 24, 25, 26, 27

Editor, 1, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 19, 20, 21, 22, 23, 24, 25, 28

Field, 17, 19, 20

Form, 1, 6, 9, 10, 11, 12, 14, 19, 20, 21, 23, 24, 27

Grid, 9, 11, 12, 19, 20, 21

Historical Society, 1, 5, 9, 11, 16, 17, 19, 20, 26

Online Journal, 4, 5, 6, 7, 15, 16, 17, 18, 24, 27, 28

Reader, 4, 5, 6, 16, 17, 18

Review, 1, 7, 11, 12, 18, 21, 23, 26, 27

Reviewer, 1, 4, 5, 6, 7, 9, 11, 16, 17, 19, 20, 21, 22, 23, 26, 27

Security, 27, 28

Status, 11, 12, 13, 14, 17, 21, 22, 23, 27

update, 9, 11, 20, 21

Update, 8, 9, 10, 11, 12, 13, 14, 15, 17, 19, 20, 21, 22

User, 7, 16, 18

Web Publishing System, 1, 4, 5, 17