Software Requirements Specification

for

<Journal Hub, Research Publication Website>

Version 1.0 approved

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<24.0.8.2020>

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1. Introduction

1.1 Purpose

Journal Hub is a Research Publication Management website which helps in automating the task of receiving the user's(author) work and publishing the same by the approval of reviewers and editors. Journal Publication website has expanded rapidly over the past five years and is predicted to continue at this rate, or even accelerate.The main objective of this project is to formulate the user's work into research paper for publication.This system is used to ease the user's difficulties on publishing his/her research paper and helping them throughout the process , which makes it a go-to place for all types of people. Article options - Research Paper, Short Communication, Review Article & more.

1.2 Document Conventions

This document uses the following convention.

DB	*Database*

1.3 Intended Audience and Reading Suggestions

This document is intended for all kinds of readers like developers, project managers, marketing staff, users, testers, and documentation writers. This SRS document contain Product Perspective and Functions where the major components and the data flow of the system are explained.

1.4 Product Scope

Online Journal Publication is a term for submission of any type of article, or research paper that involves the transfer of information across the Internet. It covers a range of different types of publications It is currently one of the most important aspects of the Internet to emerge.

1.5 References

- *Elsevier.com*
- *springer.com*
- *Cambridge.org*

2. Overall Description

2.1 Modular Description

2.1.1. Registration

This module contains details about the author, co-author, editor, and reviewer. This module plays a huge role in this process because it is useful in retrieving the information of the actor at any point of time.

2.1.2. Journals

This module contains the total list of journals available in the website. This includes searching and browsing journals; viewing recommended publications by the system, approved submissions and articles published by the user.

2.1.3. Author Section

This module helps the author in knowing his approved submissions, letting him to add, update, delete his personal and professional information any point of time and submitting his manuscript. This eases the work of the author/co-author by submitting his/her files and details at a single place. Once the author submits his manuscript, the website generates a PDF which consists of the attachments provided by the author. This PDF is also sent to the author via Gmail.

2.1.4. Editor Section

This module involves the Editor, the manager of the website who has full access to the website, takes care of the authentication process and the approval of the submitted manuscripts. The editorial board approves the manuscript for the review process, if it meets the Submission criteria or rejects the manuscript before peer review.The editorial board decides to whether publish the manuscript or not. The author is informed with the decision and the manuscript would be published.

2.1.5. Reviewer Section

This module involves the Reviewer, who is/are assigned by the editor and has complete knowledge of the journal. Only after his approval, the editor decides to whether publish his/her manuscript in the website. An email is sent to the author regarding the approval/disapproval of his submission.

2.2 Product Perspective

Journal Hub's online website based research publication is an outstanding way of bringing Authors and Co-authors on an online platform to publish papers in a secured and efficient manner irrespective of distance between the two. Journal Hub offers daily recommendations for new journals and papers on topics based on their category.

2.3 Product Functions

- *Provide a platform to ease the process of submitting as well as publishing manuscripts online.*
- *Include smooth functionality and efficiency that adds to authors' confidence.*
- *Journal Hub keeps a constant focus on new category creation and expansion of journals.*
- *Tracking feature of approvals and pending submissions by both editors and reviewers.*
- *Notifying submission and approval reports to authors and co-authors.*

2.4. User Classes and Characteristics

2.4.1. Author

He or she is a verified author of the website who is intended to submit a manuscript via the Journal Hub platform. The author must have a valid username, password and email id inorder to make a submission. The author is regularly updated with their submissions and fed with latest updates and journals according their interest.

2.4.2. Co-author

He or she is a verified person who is also allowed to publish articles over the platform, but under the main author's guidance. Co-author's details are also stored in the database and all the submissions are listed under him that he is ready to publish. He is equally responsible as the author to make changes to the manuscript details, abstract, and classifications.

2.4.3. Editor

He or she is responsible for monitoring functions and procedures on platform. Editor is responsible for authentication of the users who use the website and also to provide valid information of an approval to the concerned authors in case of any dispute between the authors and reviewersr or in case of submissions.

2.4.4. Reviewer

He or she is responsible for approving or disapproving submissions on the platform. Reviewer is also equally responsible to provide valid information of an approval/disapproval to the concerned authors in case of any dispute between the authors and editorsr or in case of submissions.

2.5. Operating Environment

- *Recommended browsers are Chrome, Firefox, Safari and Internet Explorer 8 or higher.*
- *Windows users must have 7 or higher version.*
- *Android users must have 4.0 version or above.*
- *RAM of 1 GB and Memory of 8 GB is mandatory.*

2.6. Design and Implementation Constraints

- *The approval of submission will be informed to the author within a week, unless they have a premium membership.*
- *The Author and Co-author must have confirmed Author ID and Co-author ID respectively.*
- *The actual journal might differ from its display image. Uniform quality of service is not ensured.*

2.7. User Documentation

- *Notifications*
- *User Agreement*
- *Privacy Policy*

2.8. Assumptions and Dependencies

- *Each Author must have a Author ID and password.*
- *Each Reviewer must have Reviewer ID and password.*
- *There must be an Administrator(Editor).*
- *Internet connection is a must.*
- *Proper browsers should be installed in the user's system.*

3. External Interface Requirements

3.1 User Interfaces

- *Login or Signup Page*
- *Homepage containing journals according to author's interest.*
- *There will be a screen displaying information about all journals that user searches.*
- *If the users select any journal then it will open in the same tab about the journal information.*
- *After all transaction the system makes the submission report as portable document file (pdf) and sent to the author E-mail address.*

3.2 Hardware Interfaces

- *Since the application must run over the internet, all the hardware shall require to connect internet will be hardware interface for the system. As for e.g. Modem, WAN – LAN, Ethernet Cross-Cable.*
- *The system also requires DNS (domain name space) for the naming on the internet.*
- *At the last user need web browser to interact with the system.*

3.3 Software Interfaces

- *The system requires client-side scripting languages such as HTML, CSS and Javascript for creating webpages.*
- *The system require Database also for the store the any transaction of the system like MYSQL etc.*
- *The system also requires a medium connecting both front-end and back-end which is a server side scripting language such as PHP.*

3.4 Communications Interfaces

The system shall use the HTTPS protocol for communication over the internet and for the intranet communication will be through TCP/IP protocol suite.

4. System Features

4.1 Registration

4.1.1 Description and Priority

This feature is of high priority because this ensures that only the user can log into the system and use its features. This ensures the security of the user's account and helps optimal flow of the system.

4.1.2 Stimulus/Response Sequences

- *New user must register with a valid username, e-mail id and password and verify the same.*
- *Registered User can either stay as logged in or log out of the system.*
- *There is a provision of Forgot password, which enables the registered user to log in using their email id.*

4.1.3 Functional Requirements

REQ-1: For new user, the system checks whether the entered email id and password are valid. If not, they are notified to be changed.

REQ-2: For old user, the system asks the user to verify his details once in a while so that it is not misused.

REQ-3: Also the system automatically logs the user out of the system if it was idle for a fixed time.

Use Case ID:	4.1		
Use Case Name:	Registration		
Created By:	S.Girish	Last Updated By:	S.Girish
Date Created:	24.08.2020	Date Last Updated:	28.08.2020

Actor:	Editor
Description:	User authentication and Veification of details like username and password for entry to his/her account.
Preconditions:	1. User's identity has been authenticated. 2. User's computer has sufficient free memory to launch the task. 3. User's computer has sufficient speed to run the task.
Postconditions:	1. Only valid users are allowed in the website. 2. Wrong credentials are notified. 3. Registered user can remain logged in even after using it.
Priority:	High, since it ensures security and optimal flow of the system process.
Frequency of Use:	30 times per day
Normal Course of Events:	Entering the Details and getting access to products in the website
Alternative Courses:	If Entered Details are wrong, then user gets an error message
Exceptions:	Username/Password/Email may not be valid.
Includes:	Searching for journals under different categories
Special Requirements:	Secondary email or mobile phone number for backup
Assumptions:	Valid Username, Password and email by the user.

4.2 Journals

4.2.1 Description and Priority

- *This feature contains the total list of journals available in the website and allows the user to view different journals under different categories.*
  - *This includes searching and browsing journals; viewing recommended publications by the system, approved submissions and articles published by the user.*

4.2.2 Stimulus/Response Sequences

Journal submissions can approved or rejected according to the editor's choice.

4.2.3 Functional Requirements

REQ-1: For new user, the system checks whether the entered email id and password are valid. If not, they are notified to be changed.

REQ-2: For old user, the system asks the user to verify his details once in a while so that it is not misused.

REQ-3: The user can add or remove items and shop for same.

Use Case ID:	4.2		
Use Case Name:	Journals		
Created By:	S.Girish	Last Updated By:	S.Girish
Date Created:	24.08.2020	Date Last Updated:	28.08.2020

Actor:	Customer
Description:	View and Browse journals and submit the same
Preconditions:	1. User's identity has been authenticated. 2. User's computer has sufficient free memory to launch the task. 3. User's computer has sufficient speed to run the task.
Postconditions:	1. Only valid users are allowed in the website. 2. Customer can view/add/remove journals from their submission list. 3. Registered user submissions are saved after logging out of the system.
Priority:	High, since it allows users to select their choice of journals among different categories.
Frequency of Use:	15 times per day
Normal Course of Events:	Selecting a journal for making a submission
Alternative Courses:	Added submissions can also be removed
Exceptions:	Journals may not selected for publishing
Includes:	Searching for journals under differnt categories
Special Requirements:	Authentication of the user in order to proceed with submission .
Assumptions:	Basic idea about the interface in order to search journals.

4.3 Author Section

4.3.1 Description and Priority

- *This feature is one of the three most important features since it helps the author in knowing his approved submissions, letting him to add, update, delete his personal and professional information any point of time and submitting his manuscript.*
  - *This eases the work of the author/co-author by submitting his/her files and details at a single place.*
  - *Once the author submits his manuscript, the website generates a PDF which consists of the attachments provided bythe author. This PDF is also sent to the author via Gmail.*

4.3.2 Stimulus/Response Sequences

- *The user enters the details about his journal.*
- *The author and co-author can mutually communicate with eachother to meet their needs and come to a conclusion.*

4.3.3 Functional Requirements

REQ-1: For new user, the system checks whether the entered email id and password are valid. If not, they are notified to be changed.

REQ-2: For old user, the system asks the user to verify his details once in a while so that it is not misused.

REQ-3: The user can verify the details of the product and the seller to proceed with the transaction.

Use Case ID:	4.3		
Use Case Name:	Author Section		
Created By:	S.Girish	Last Updated By:	S.Girish
Date Created:	24.08.2020	Date Last Updated:	28.08.2020

Actor:	Author and Co-autho
Description:	Verify the details and clarify their doubts
Preconditions:	1. User's identity has been authenticated. 2. User's computer has sufficient free memory to launch the task. 3. User's computer has sufficient speed to run the task.
Postconditions:	1. User's identity has been authenticated. 2. User's computer has sufficient free memory to launch the task. 3. User's computer has sufficient speed to run the task.
Priority:	Allows author to enter details under different categories
Frequency of Use:	15 times per day
Normal Course of Events:	Generating PDF, sending a mail to the author and the review process.
Alternative Courses:	Can cancel the submission
Exceptions:	Some details may not be entered
Includes:	Updating personal and professional information
Special Requirements:	Authentication of the customer in order to proceed with Checkout.
Assumptions:	All required details are provided for submission.

4.4 Editor Section

4.4.1 Description and Priority

- *This module involves the Editor, the manager of the website who has full access to the website, takes care of the authentiation process and the approval of the submitted manuscripts.*
- *The editorial board approves the manuscript for the review process, if it meets the Submission criteria or rejects the manuscript before peer review.The editorial board deciedes to whether publish the manuscript or not.*
- *The author is informed with the desicion and the manuscript would be published.*

4.4.2 Stimulus/Response Sequences

- *The editor must verify the author's details before approving a submission.*
- *The editor can choose to disapprove the submission at the first go or approve and go for reviewer approval.*

4.4.3 Functional Requirements

REQ-1: For new user, the system checks whether the entered email id and password are valid. If not, they are notified to be changed.

REQ-2: For old user, the system asks the user to verify his details once in a while so that it is not misused.

REQ-3: The user can verify their details and can proceed with their purchase

Use Case ID:	4.4		
Use Case Name:	Editor Section		
Created By:	S.Girish	Last Updated By:	S.Girish
Date Created:	24.08.2020	Date Last Updated:	28.08.2020

Actor:	Editor
Description:	Verify the submission, approve/disapprove it and assign reviewers.
Preconditions:	1. User's identity has been authenticated. 2. User's computer has sufficient free memory to launch the task. 3. User's computer has sufficient speed to run the task.
Postconditions:	1. Only valid users are allowed in the website. 2. Editor can choose to either approve or disapprove the submission. 3. If approved, the editor can assign reviewers for publishing the manuscript.
Priority:	High, since it decides the publication of thr manuscript
Frequency of Use:	15 times per day.
Normal Course of Events:	Authentication and way of transaction
Alternative Courses:	Disapproval of the submission before assigning reviewers
Exceptions:	Author might have attached wrong file for submission
Includes:	Different ways of completing transaction
Special Requirements:	Author can enter all details to ease the work of editor
Assumptions:	Author and Editor details are valid.

4.5 Reviewer Section

4.5.1 Description and Priority

- *This feature involves the Reviewer, who is/are assigned by the editor and has complete knowledge of the journal.*
- *Only after his approval, the editor deceides to whether publish his/her manuscript in the website.*
- *An email is sent to the author regarding the approval/disapproval of his submission.*

4.5.2 Stimulus/Response Sequences

- *The reviewer can check the merged PDF generated by the website.*
- *The reviewer and editor can mutually communicate with eachother for effective desicion.*

4.5.3 Functional Requirements

REQ-1: For new user, the system checks whether the entered email id and password are valid. If not, they are notified to be changed.

REQ-2: For old user, the system asks the user to verify his details once in a while so that it is not misused.

REQ-3: The user can verify the details of the product and proceed with cash on delivery if chosen.

Use Case ID:	4.5		
Use Case Name:	Reviewer Section		
Created By:	S.Girish	Last Updated By:	S.Girish
Date Created:	24.08.2020	Date Last Updated:	28.08.2020

Actor:	Customer and Shipmment Agent
Description:	Fast and safe delivery to the customer
Preconditions:	1. User's identity has been authenticated. 2. User's computer has sufficient free memory to launch the task. 3. User's computer has sufficient speed to run the task.
Postconditions:	1. Only valid users are allowed in the website. 2. Reviewer can choose to either approve or disapprove the submission. 3. Once approved the author gets a success message in mail.
Priority:	High, since it decides the publication of manuscript
Frequency of Use:	15 times per day
Normal Course of Events:	Tracking of submission and approving it.
Alternative Courses:	Can disapprove the submission within a fixed period of time
Exceptions:	Reviewer might not be available
Includes:	Viewing the merged PDF, if the reviewer wants ti verify the submission.
Special Requirements:	Reviewer can choose to either approve or disapprove the submission.
Assumptions:	Reviewer may have to verify his credentials before approving a manuscript.

5. Other Nonfunctional Requirements

5.1 Performance Requirements

- *The product shall be based on web and has to be run from a web server.*
- *The product shall take initial load time depending on internet connection strength which also depends on the media from which the product is run.*
- *The performance shall depend upon hardware components of the client/user. *

5.2 Safety Requirements

- *This can take the form of being protected from the event or from exposure to something that causes health or economical losses.*
- *It can include protection of people or of possessions.*

5.3 Security Requirements

5.3.1 Data Transfer

- *The system shall automatically log out all users after a period of inactivity.*
- *The system shall confirm all transactions with the user's web browser.*

5.3.2. Data Storage

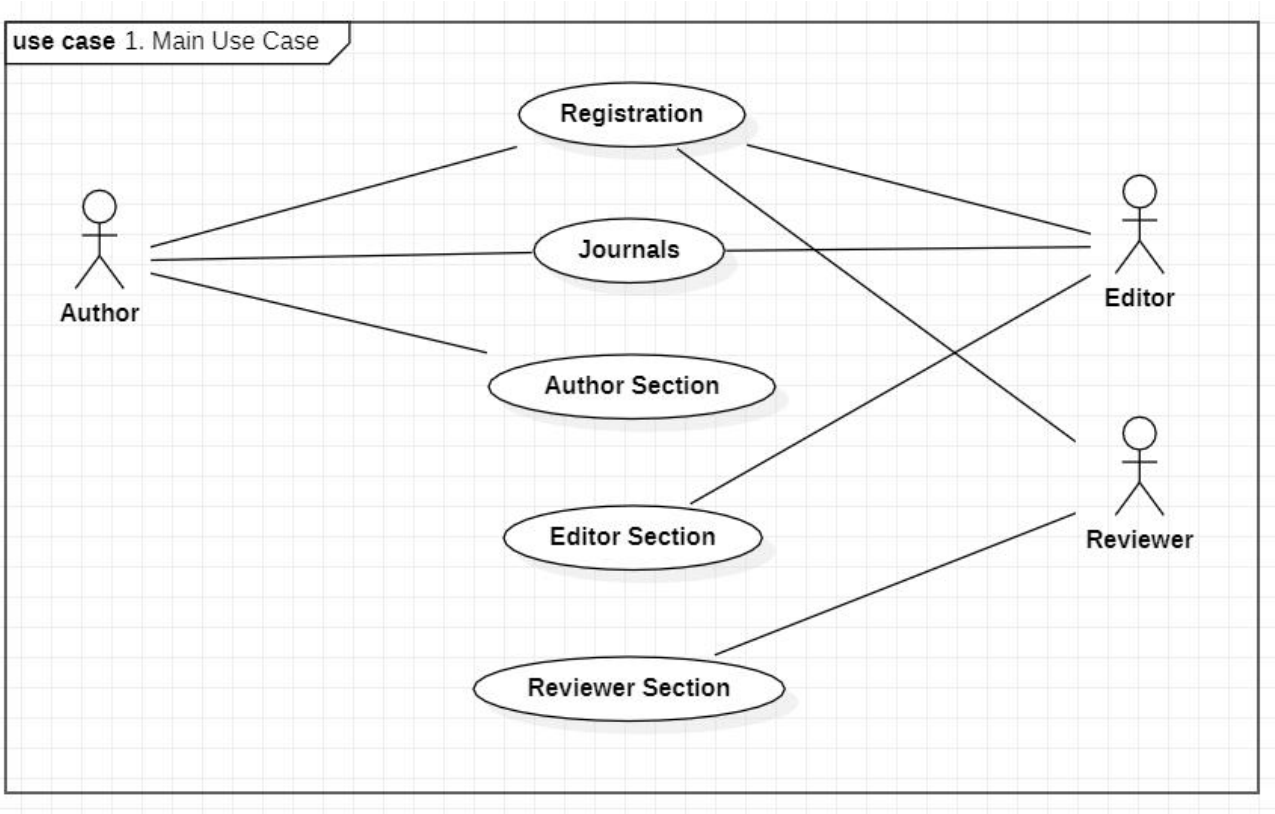
- *The user's web browser shall never display a user's password.*
- *It shall always be echoed with special characters representing typed characters.*

6. Other Requirements

Appendix A: Analysis Models

A.1. MAIN USE CASE DIAGRAM

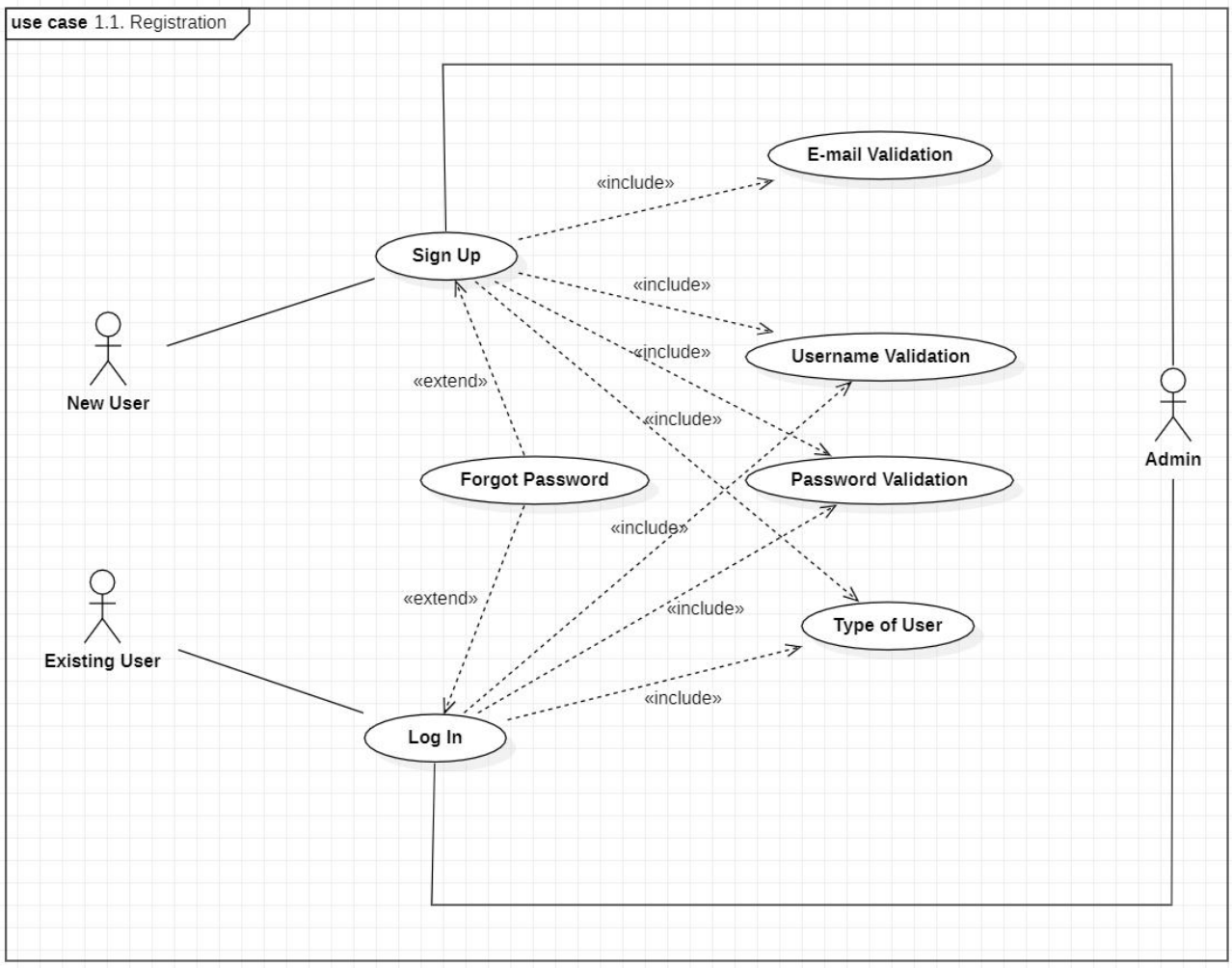
A simple diagram that shows the major components of the overall system are explained in the form of Use Case Diagram Diagram and as follows



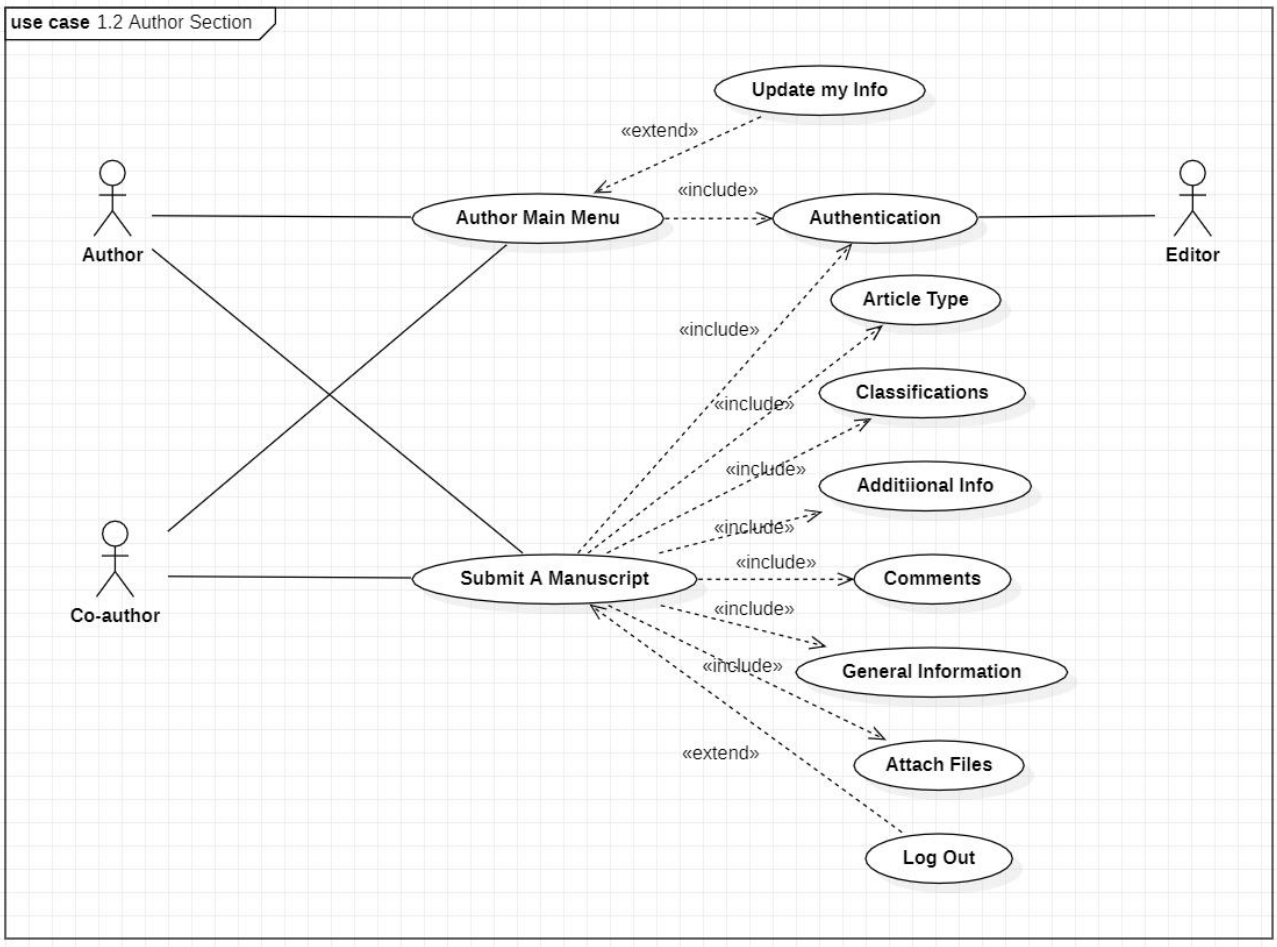
A.2. SUB USE CASE DIAGRAMS

The Sub use case diagram for registration, author section and editor, reviewer section is as follows

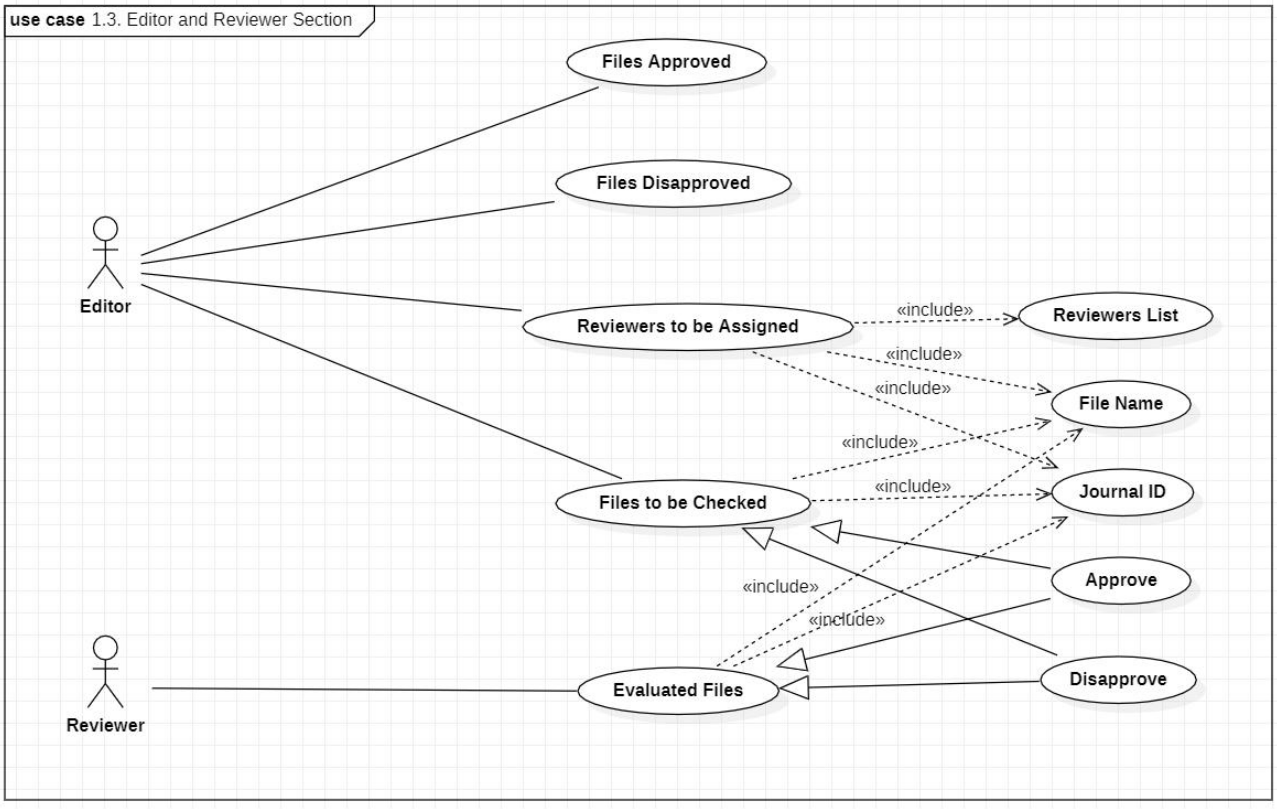
A.2.1. REGISTRATION



A.2.2. AUTHOR SECTION

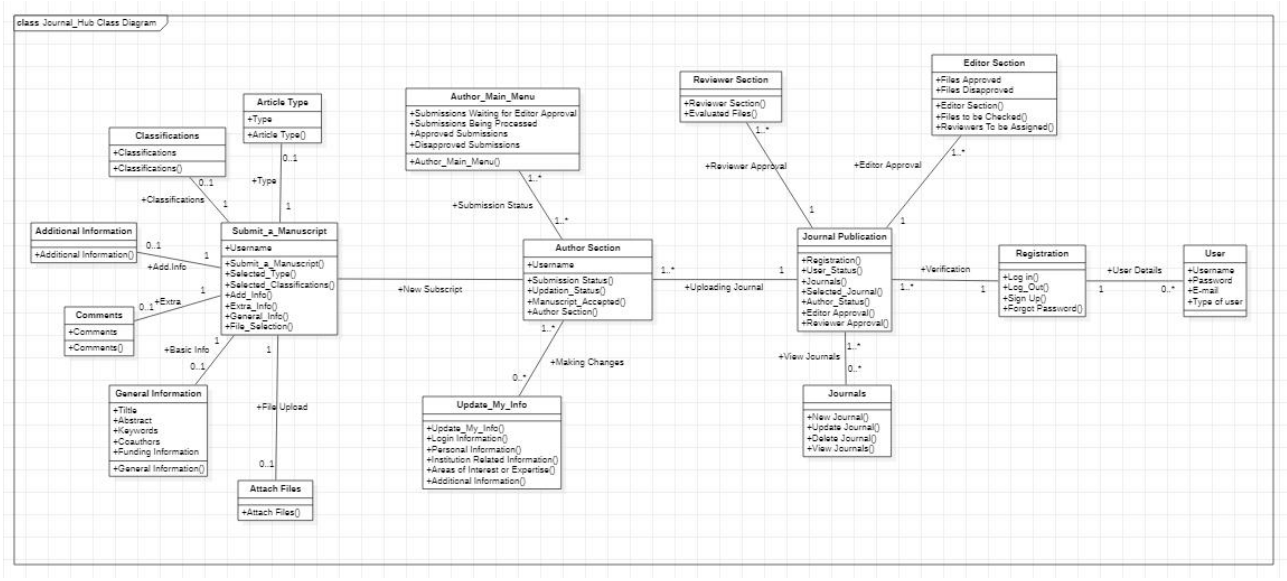


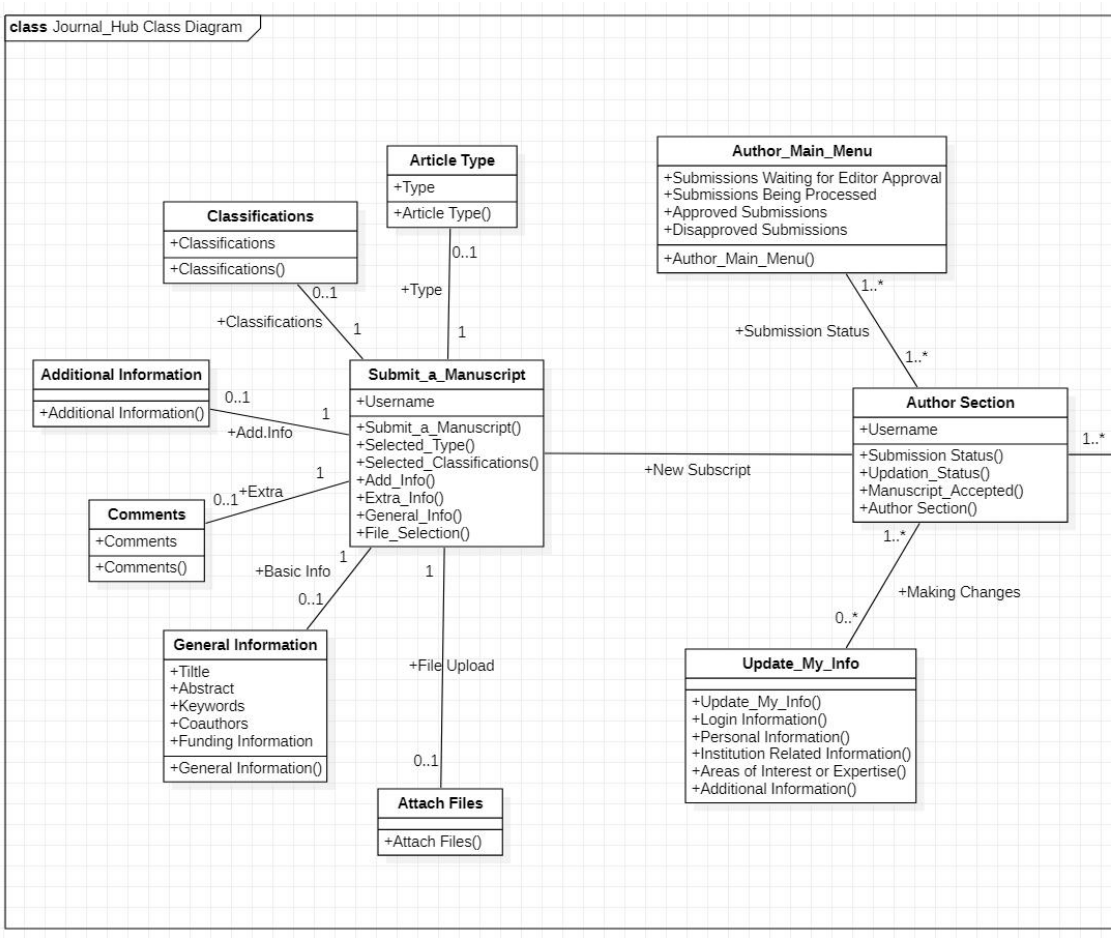
A.2.3 EDITOR AND REVIEWER SECTION

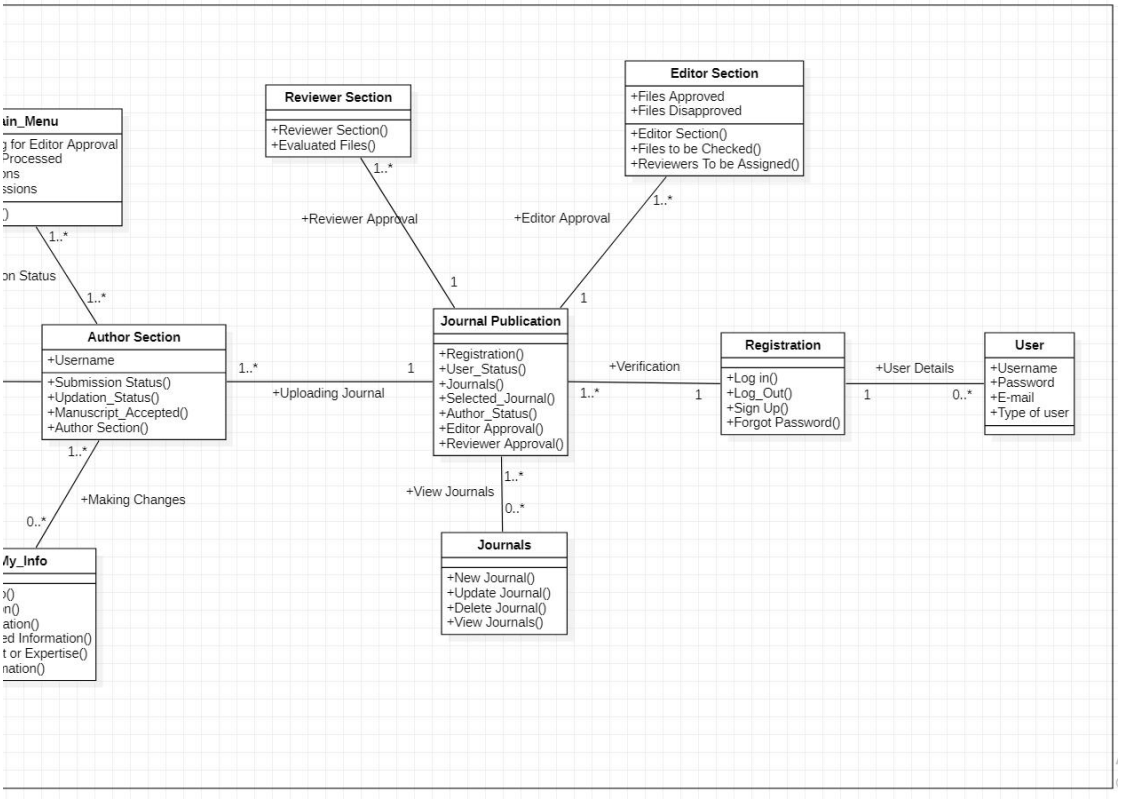


A.3 CLASS DIAGRAM

The following class diagram explains the product features of Journal Hub.

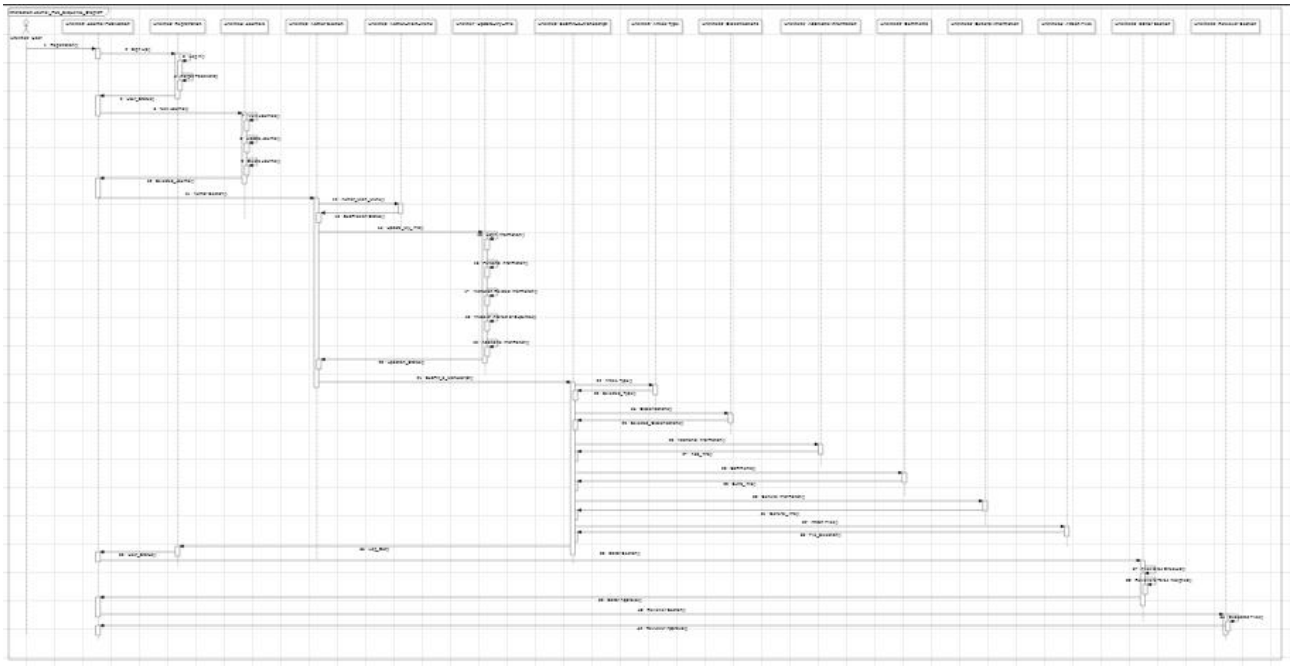


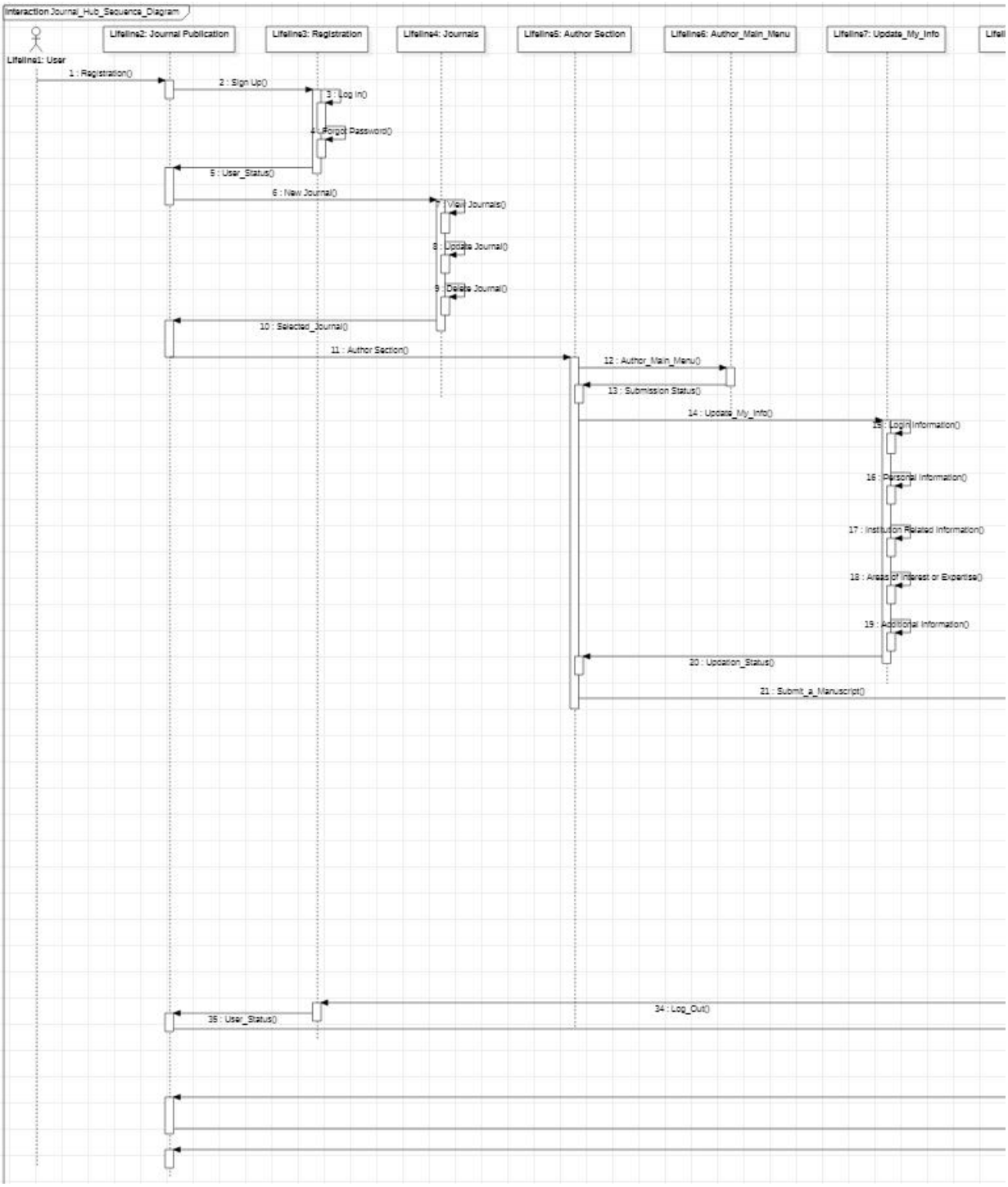

class Journal_Hub Class Diagram
Article Type
+Type
+Article Type()
Author_Main_Menu
+Submissions Waiting for Editor Approval
+Submissions Being Processed
+Approved Submissions
+Disapproved Submissions
+Author_Main_Menu()
Classifications
+Classifications
+Classifications()
Additional Information
+Additional Information()
Submit_a_Manuscript
+Username
+Submit_a_Manuscript()
+Selected_Type()
+Selected_Classifications()
+Add_Info()
+Extra_Info()
+General_Info()
+File_Selection()
Author Section
+Username
+Submission Status()
+Updation_Status()
+Manuscript_Accepted()
+Author Section()
Comments
+Comments
+Comments()
General Information
+Tiltle
+Abstract
+Keywords
+Coauthors
+Funding Information
+General Information()
Update_My_Info
+Update_My_Info()
+Login Information()
+Personal Information()
+Institution Related Information()
+Areas of Interest or Expertise()
+Additional Information()
Attach Files
+Attach Files()
+Type
+Classifications
+Add.Info
+Extra
+Basic Info
+File Upload
+Submission Status
+New Subscript
+Making Changes
0..1
1
1..*
0..*

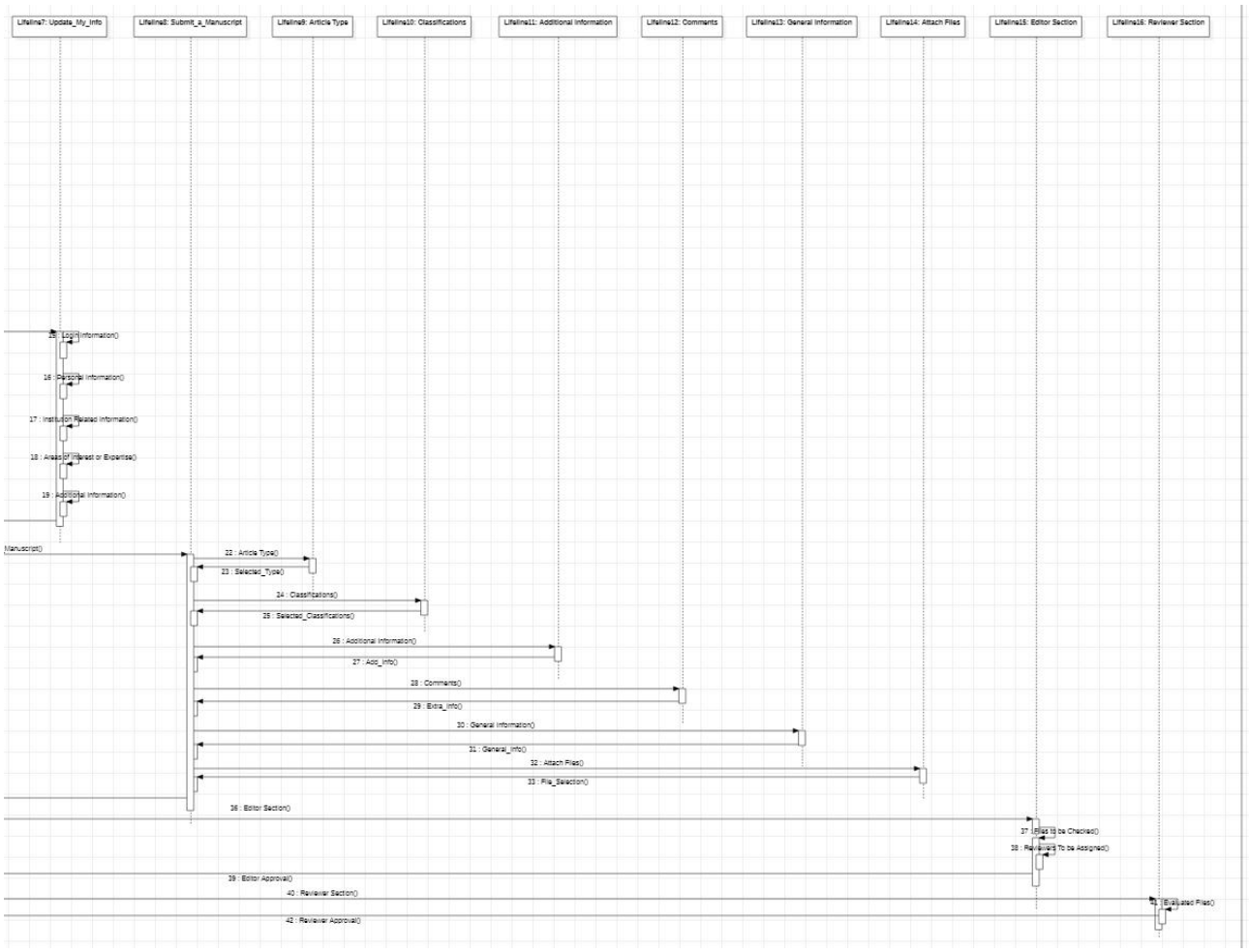

Reviewer Section
+Reviewer Section()
+Evaluated Files()
Editor Section
+Files Approved
+Files Disapproved
+Editor Section()
+Files to be Checked()
+Reviewers To be Assigned()
Author Section
+Username
+Submission Status()
+Updation_Status()
+Manuscript_Accepted()
+Author Section()
Journal Publication
+Registration()
+User_Status()
+Journals()
+Selected_Journal()
+Author_Status()
+Editor Approval()
+Reviewer Approval()
Registration
+Log in()
+Log_Out()
+Sign Up()
+Forgot Password()
User
+Username
+Password
+E-mail
+Type of user
Journals
+New Journal()
+Update Journal()
+Delete Journal()
+View Journals()
+Reviewer Approval
+Editor Approval
+Uploading Journal
+Verification
+User Details
+View Journals
+Making Changes
1..*
1
0..*

A.4. SEQUENCE DIAGRAM

The following sequence diagram explains the operations carried out in Journal Hub.

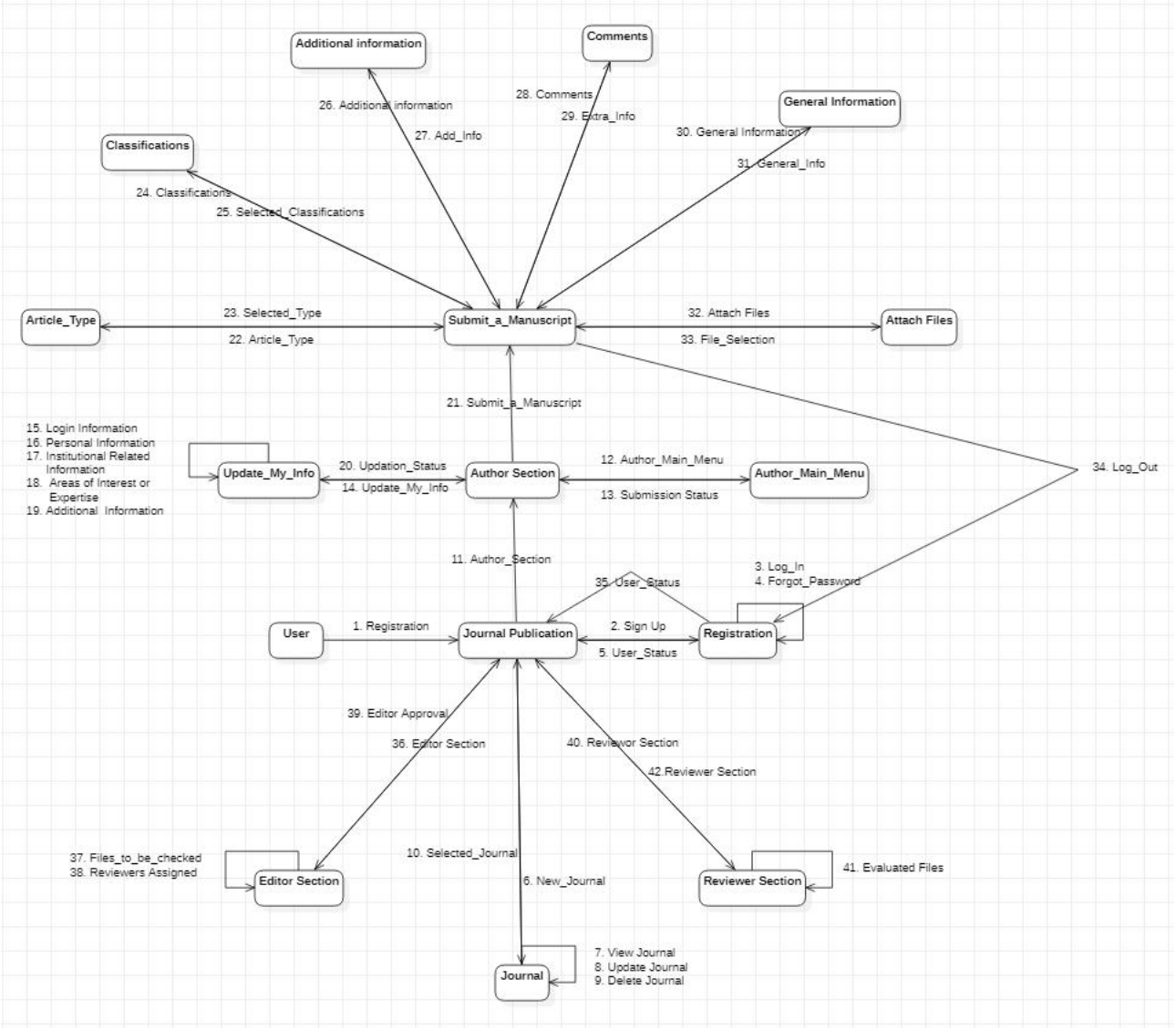



Interaction Journal_Hub_Sequence_Diagram
Lifeline1: User
Lifeline2: Journal Publication
Lifeline3: Registration
Lifeline4: Journals
Lifeline5: Author Section
Lifeline6: Author_Main_Menu
Lifeline7: Update_My_Info
1 : Registration()
2 : Sign Up()
3 : Log In()
4 : Forgot Password()
5 : User_Status()
6 : New Journal()
7 : View Journals()
8 : Update Journal()
9 : Delete Journal()
10 : Selected_Journal()
11 : Author Section()
12 : Author_Main_Menu()
13 : Submission Status()
14 : Update_My_Info()
15 : Login Information()
16 : Personal Information()
17 : Institution Related Information()
18 : Areas of Interest or Expertise()
19 : Additional Information()
20 : Updation_Status()
21 : Submit_a_Manuscript()
34 : Log_Out()
35 : User_Status()


Lifeline7: Update_My_Info
Lifeline8: Submit_a_Manuscript
Lifeline9: Article Type
Lifeline10: Classifications
Lifeline11: Additional Information
Lifeline12: Comments
Lifeline13: General Information
Lifeline14: Attach Files
Lifeline15: Editor Section
Lifeline16: Reviewer Section
15 : Login Information()
16 : Personal Information()
17 : Institution Related Information()
18 : Areas Of Interest or Expertise()
19 : Additional Information()
Manuscript()
22 : Article Type()
23 : Selected_Type()
24 : Classifications()
25 : Selected_Classifications()
26 : Additional Information()
27 : Add_Info()
28 : Comments()
29 : Extra_Info()
30 : General Information()
31 : General_Info()
32 : Attach Files()
33 : File_Selection()
36 : Editor Section()
37 : Files to be Checked()
38 : Reviewers To be Assigned()
39 : Editor Approval()
40 : Reviewer Section()
41 : Evaluated Files()
42 : Reviewer Approval()

A.5. COLLABORATION DIAGRAM

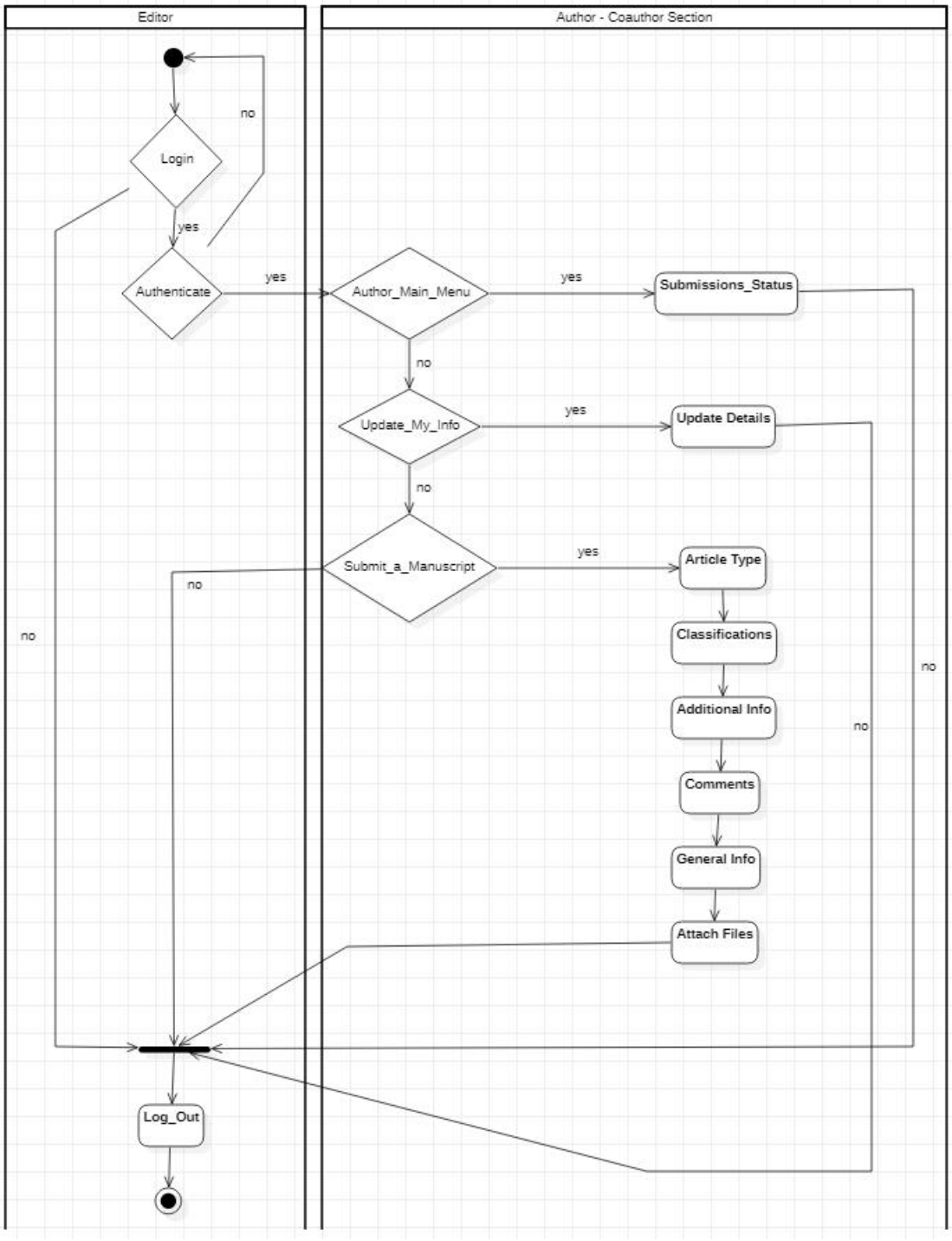
The following sequence diagram explains the roles of the objects carried out in Journal Hub.



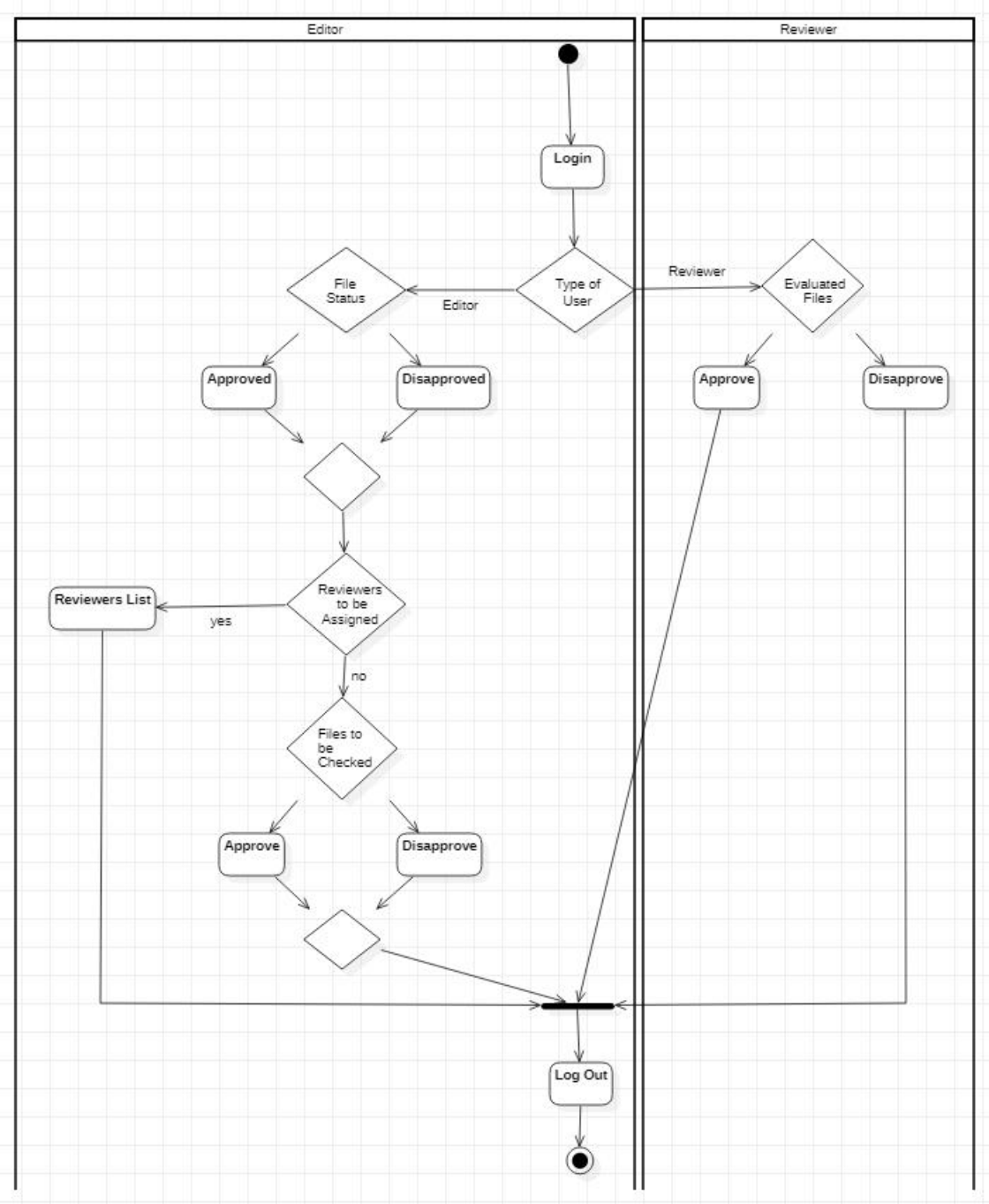
A.6. ACTIVITY DIAGRAM

The following sequence diagram explains the flow of activities carried out in Journal Hub.

A.6.1. AUTHOR SECTION



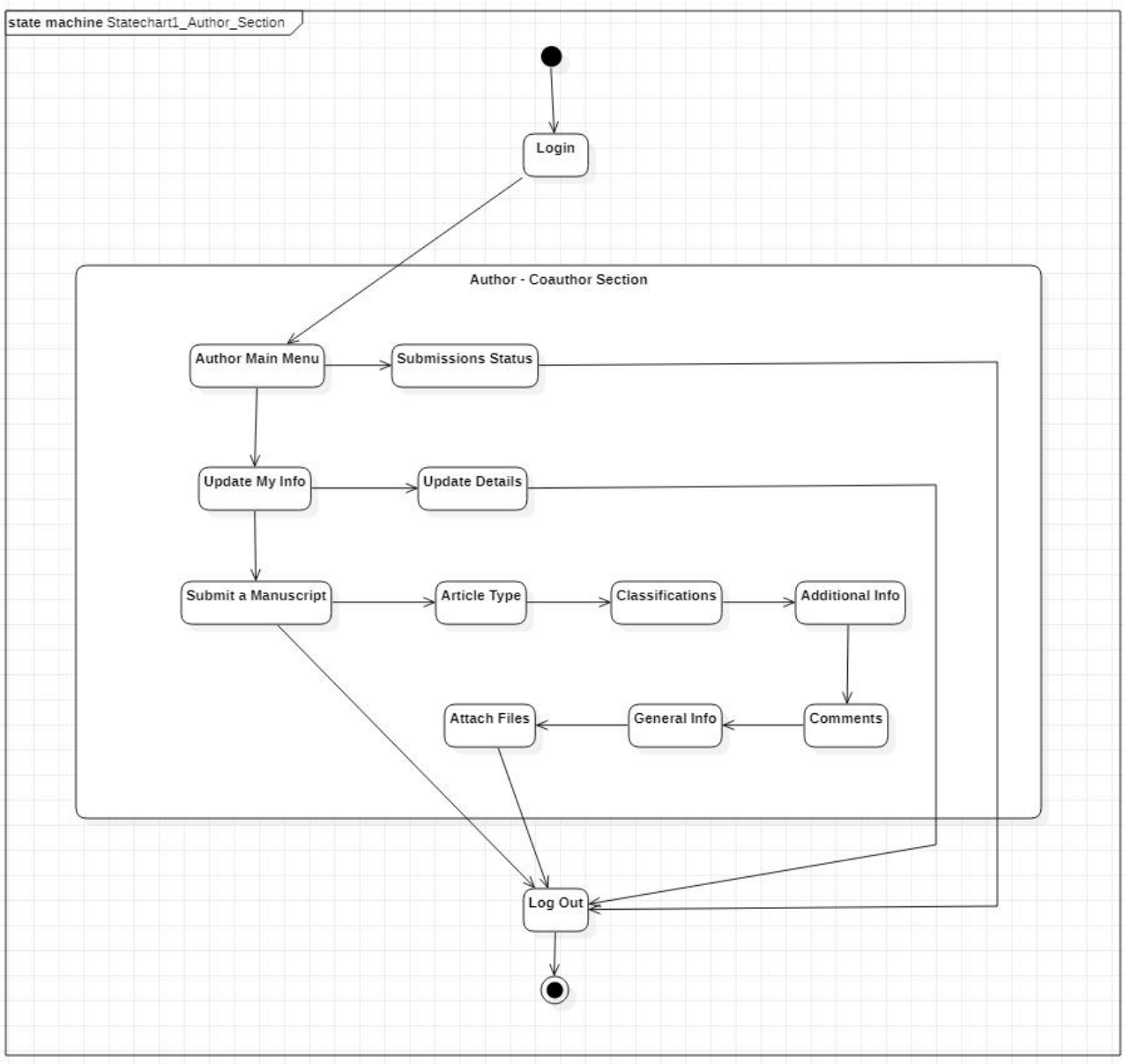
A.6.2. EDITOR AND REVIEWER SECTION



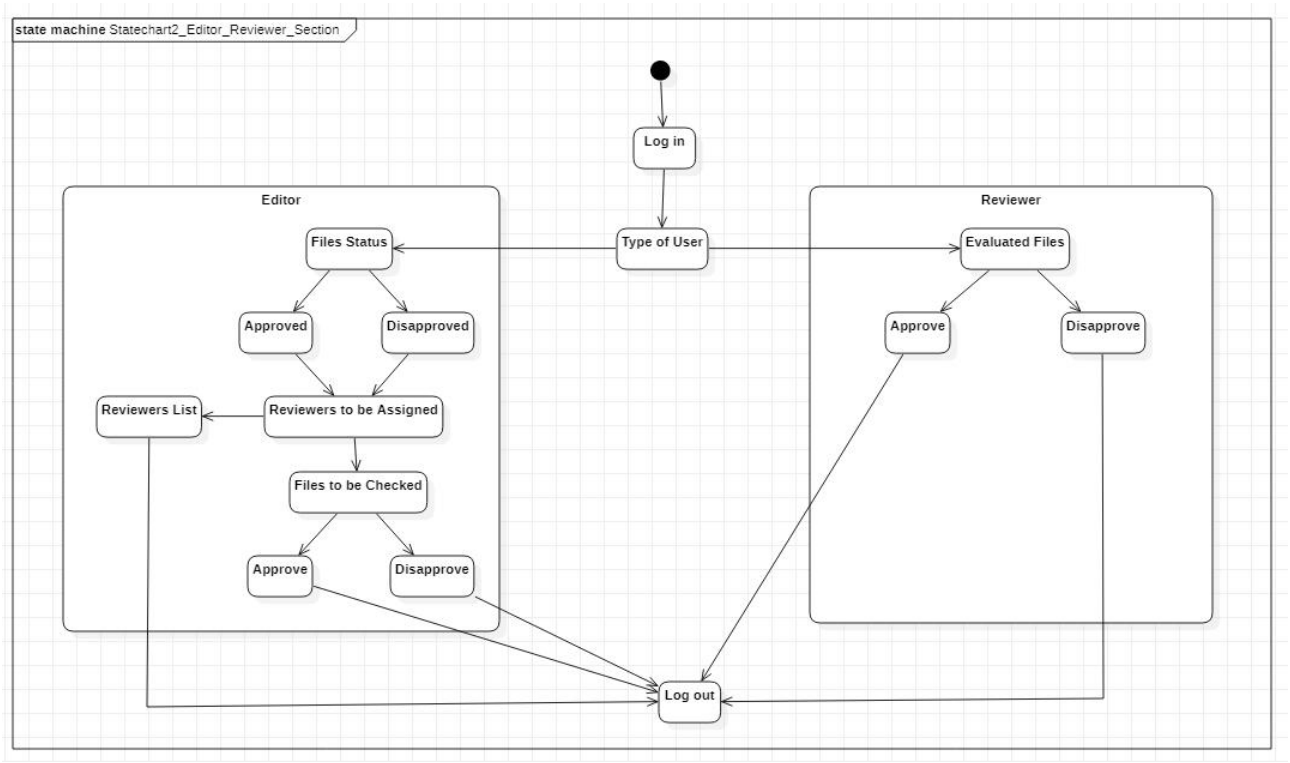
A.7. STATE CHART DIAGRAM

The following sequence diagram explains an object undergoing a process in Journal Hub.

A.7.1. AUTHOR SECTION



A.7.2. EDITOR AND REVIEWER SECTION



Appendix B: Test Cases

Module -1 : **Registration**

1.) **Username** :

The positive Test Scenarios are,

- *Username box should not accept less than 8 characters.*
- *Username box should be up to 12 characters.*
- *Username box should accept only alphanumerics.*

The negative Test Scenarios are,

- *Username box should not accept more than 8 characters.*
- *Username box should not exceed 12 characters.*
- *Username box should not accept special characters.*

This test case can be handled effectively using Equivalence Partitioning (TEST CASES GENERATION).

- ✓ *Two test cases are considered to be equivalent if we expect the program to process them both in the same way.*
- ✓ *Input values to the system or application are divided into different classes or groups based on its similarity in the outcome.*
- ✓ *This technique is also known as Equivalence Class Partitioning (ECP).*

Thus, 3 invalid classes will be:

a) *Number of characters Less than or equal to 7.*
b) *Number of characters Greater than or equal to 12.*
c) *Characters other than alphanumerics like "#","!",";",etc.*

One valid class will be,

Character length >= 8 and =< 12 and consists of only alphanumerics.

We have thus reduced the test cases to only 4 test cases based on the formed classes thereby covering all the possibilities. So, testing with anyone value from each set of the class is sufficient to test the above test case objective.

SNO	TEST CASE OBJECTIVE	PRE CONDITION	STEPS / TEST DATA	EXPECTED RESULT	POST CONDITION	CONDITION PASS/FAIL
1	Username	Character length >= 8 and =< 12 and consists of only alphanumerics.	girish13	Username is Valid (Positive Test Case)	Any string with length >=8 and <=12 and only alphanumerics is correct. So, log in is permitted.	PASS
			giri!1	Username is Invalid (Negative Test Case)	Any string with length <=8 is incorrect. So, log in is not permitted.	PASS
			girishsudhakar$12	Username is Invalid (Negative Test Case)	Any string with length >=12 is incorrect. So, log in is not permitted.	PASS
			giri#12%	Username is Invalid (Negative Test Case)	Any string other than alphanumerics is incorrect. So, log in is not permitted.	PASS

2.) **Password** :

The positive Test Scenarios are,

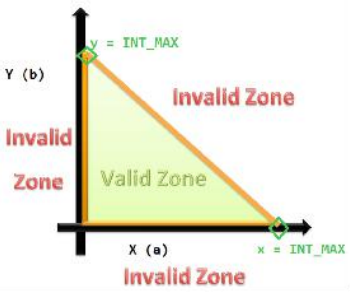
- *Password box should not accept less than 8 characters.*
- *Password box should be up to 15 characters.*
- *Password box should accept special characters up to 2-10 character length.*

The negative Test Scenarios are,

- *Password box should not accept more than 8 characters.*
- *Password box should not exceed 15 characters.*
- *Password box should not accept special characters.*

This test case can be handled effectively using Equivalence Partitioning and Boundary Value Analysis.

- ✓ *In this technique we focus on the values at boundaries since many applications have a high amount of issues on the boundaries.*
- ✓ *Boundaries are the values near the limit where the behaviour of the system changes.*
- ✓ *Here, both the valid inputs and invalid inputs are being tested to verify the issues.*



Thus, the boundary condition is Number of Character = [8, 15] and,

2 invalid classes will be:

a) *Number of characters Less than or equal to 7.*
b) *Number of characters Greater than or equal to 15.*

1 valid class will be,

Character length >= 8 and =< 15.

We have thus reduced the test cases to only 3 test cases based on the formed classes thereby covering all the possibilities. So, testing with anyone value from each set of the class is sufficient to test the above test case objective.

SNO	TEST CASE OBJECTIVE	PRE CONDITION	STEPS / TEST DATA	EXPECTED RESULT	POST CONDITION	CONDITION PASS/FAIL
2	Password	Character length >= 8 and =< 15.	girish13	Password is Valid (Positive Test Case)	Any string with length >=8 and <=12 is correct. So, log in is permitted.	PASS
			giri!1	Password is Invalid (Negative Test Case)	Any string with length <=8 is incorrect. So, log in is not permitted.	PASS
			girishsudhakar$12	Password is Invalid (Negative Test Case)	Any string with length >=15 is incorrect. So, log in is not permitted.	PASS

3.) **E-mail** :

The positive Test Scenarios are,

- *E-mail box should not accept less than 8 characters.*
- *E-mail box should be up to 12 characters.*
- *E-mail box should accept only alphanumerics.*

The negative Test Scenarios are,

- *E-mail box should not accept more than 8 characters.*
- *E-mail box should not exceed 12 characters.*
- *E-mail box should not accept special characters.*

This test case can be handled effectively using Equivalence Partitioning (TEST CASES GENERATION).

Thus, 2 invalid classes will be:

a) *Number of characters Less than or equal to 7.*
b) *Number of characters Greater than or equal to 12.*

One valid class will be,

Character length >= 8 and =< 12 and consists of only alphanumerics.

We have thus reduced the test cases to only 3 test cases based on the formed classes thereby covering all the possibilities.
So, testing with anyone value from each set of the class is sufficient to test the above test case objective.

SNO	TEST CASE OBJECTIVE	PRE CONDITION	STEPS / TEST DATA	POST CONDITION	EXPECTED RESULT	CONDITION PASS/FAIL
3	E-mail	Any string with characters before and after '@'.	girish@13	E-mail is Valid (Positive Test Case)	Any string with characters before and after '@' is correct. So, log in is permitted.	PASS
			@giri!1	E-mail is Invalid (Negative Test Case)	Any string with only characters before @ is incorrect. So, log in is permitted.	PASS
			girisudhakar$12@	E-mail is Invalid (Negative Test Case)	Any string with only characters after @ is incorrect. So, log in is permitted.	PASS

4.) **Forgot Password** :

This test case can tested using White Box Testing since, we need to extract email of the user from the database in order to validate the user's details.

This can be done by using Automated type testing.
Automation Testing is used to re-run the test scenarios that were performed manually, quickly, and repeatedly.

Thus it is required,

1. To check whether when we select the forgot password link it is directing to forgot password link page.

2. To check whether the link has sent to the mail to which the user has provided.

3. To check whether the answer given by the user at that time and he has given while at the time of registering must be the same .

4. To check whether the link can be used only once.

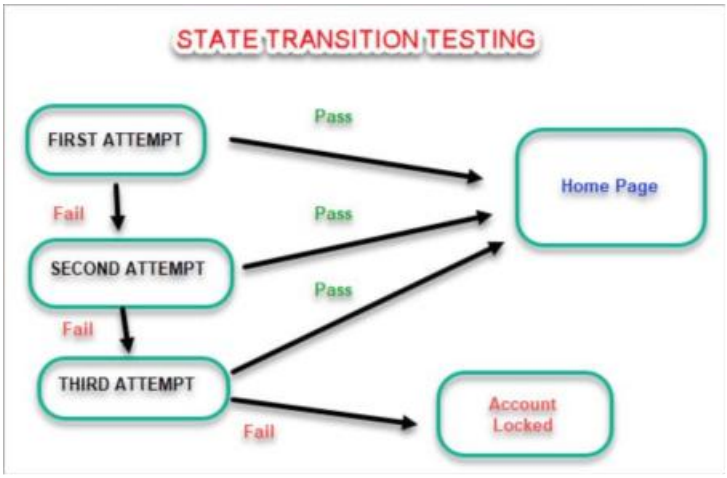
SNO	TEST CASE OBJECTIVE	PRE CONDITION	STEPS / TEST DATA	EXPECTED RESULT	POST CONDITION	CONDITION PASS/FAIL
4	E-mail	Character length >= 8 and =< 12 and consists of only alphanumerics.	If field in the form is empty.	Alert the user to enter the fields and then proceed.	Stay in same page.	PASS
			If the Email id does not match.	Alert user that "Email id Not match"	Stay in same page.	PASS
			If the Email id is Matched.	Extract it from the DB Table. Send a mail to user and Alert the user "Mail Has sent".	Redirect to 'Change Password' page	PASS

5.) Maximum Attempts :

This test case can be tested using Black-BoxTesting, since we need to test under different systems.

This can be done by using State Transition testing.

- *State Transition Testing is a technique that is used to test the different states of the system under test.*
- *The state of the system changes depending upon the conditions or events.*
- *According to those conditions, certain events are triggered.*



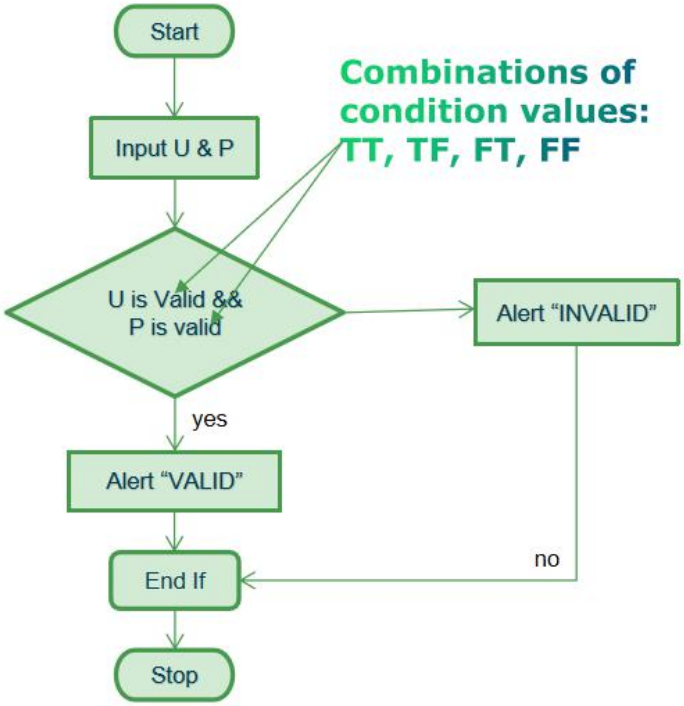
SNO	TEST CASE OBJECTIVE	PRE CONDITION	STEPS / TEST DATA	EXPECTED RESULT	POST CONDITION	CONDITION PASS/FAIL
5	Username and Password	**Username** : Character length >= 8 and =< 12 and consists of only alphanumerics. **Password** : Character length >= 8 and =< 15	If credentials after valid at 1st Attempt	Alert the user "Credentials are valid"	Redirect to "Home Page"	PASS
			If credentials after invalid at 1st Attempt	Alert the user "Invalid credentials. 2 Attempts left"	Stay in same page.	PASS
			If credentials after valid at 2nd Attempt	Alert the user "Credentials are valid"	Redirect to "Home Page"	PASS
			If credentials after invalid at 2nd Attempt	Alert the user "Invalid credentials. 1 Attempt left"	Stay in same page.	PASS
			If credentials after valid at 3rd Attempt	Alert the user "Credentials are valid"	Redirect to "Home Page"	PASS
			If credentials after invalid at 3rd Attempt	Alert the user "Invalid credentials. Account is locked for 24 hours."	Stay in same page.	PASS

6.) **Old user Verification** :

If the user is not active for more than 15 days, he must log in with his credentials.

This test case can tested using White Box Testing (Compound Condition Coverage) since, we need to verify both username and password.

- ***Compound Condition Coverage** requires that all combinations of condition values at every branch statement will have been covered, and that every entry point will have been taken, at least once.*
- *Also know as **Multiple Condition Coverage***



SNO	TEST CASE OBJECTIVE	PRE CONDITION	STEPS / TEST DATA	EXPECTED RESULT	POST CONDITION	CONDITION PASS/FAIL
6	Username and Password	**Username** : Character length >= 8 and =< 12 and consists of only alphanumerics. **Password** : Character length >= 8 and =< 15	If U is Invalid and P is Invalid	Alert the user that both Username and Password are Invalid.	Stay in same page.	PASS
			If U is Invalid and P is Valid	Alert the user that Username does not match.	Stay in same page.	PASS
			If U is Valid and P is Invalid	Alert the user that Password do not match.	Stay in same page.	PASS
			If U is Valid and P is Valid	Alert the user that both Username and Password are valid.	Direct to 'View Items' page.	PASS

Module -2 : **Journals**

7.) Selecting Journals under categories :

The system must display journals based on the choice of categories chosen by the user.

This test case can tested using White Box Testing (Compound Condition Coverage) since the user needs to choose products of category C1 and/or/not C2.

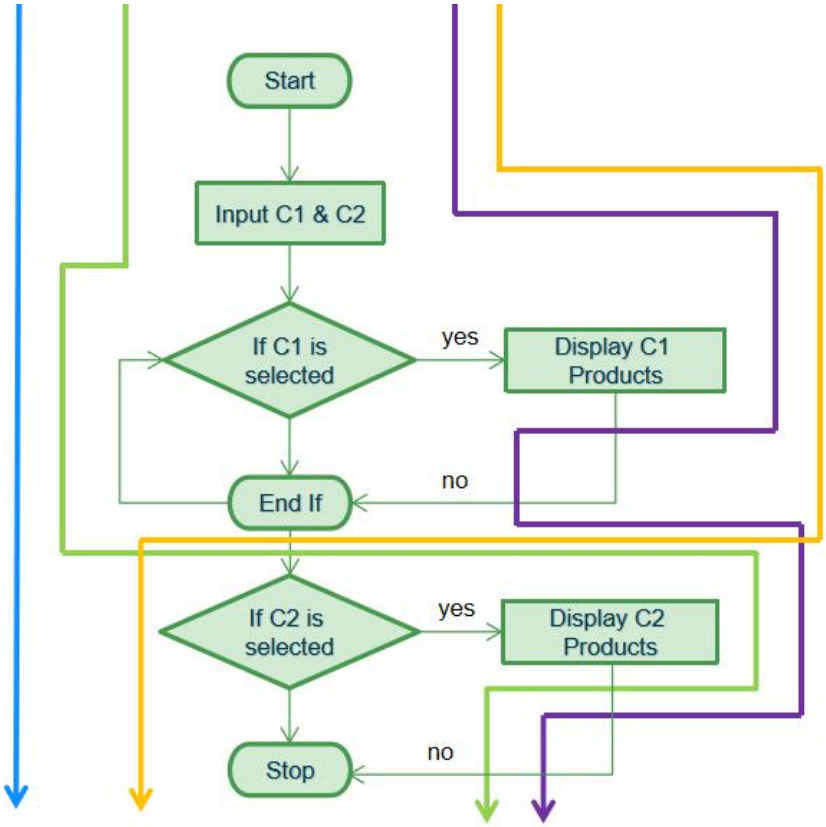
For Full coverage, we have 4 test cases,

Test_Case_01:
C1 – Not selected,
C2 – Not selected

Test_Case_02:
C1 – Not selected,
C2 – Selected

Test_Case_03:
C1 – Selected,
C2 – Selected

Test_Case_04:
C1 – Selected,
C2 – Not selected



SNO	TEST CASE OBJECTIVE	PRE CONDITION	STEPS / TEST DATA	EXPECTED RESULT	POST CONDITION	CONDITION PASS/FAIL
7	Category 1 (C1) and Category 2 (C2)	If Username and Password of the user is Valid.	If C1 is Not selected and C2 is Not selected	Display journals from categories other than C1 & C2.	Display Offers/ Recommendations	PASS
			If C1 is Not selected and C2 is Selected	Display jourals from category C2.	Display Offers/ Recommendations	PASS
			If C1 is Selected and C2 is Selected	Display jourals from categories C1 & C2.	Display Offers/ Recommendations	PASS
			If C1 is Selected and C2 is Not selected	Display jourals from category C1.	Display Offers/ Recommendations	PASS

Module - 4 : Editor Section

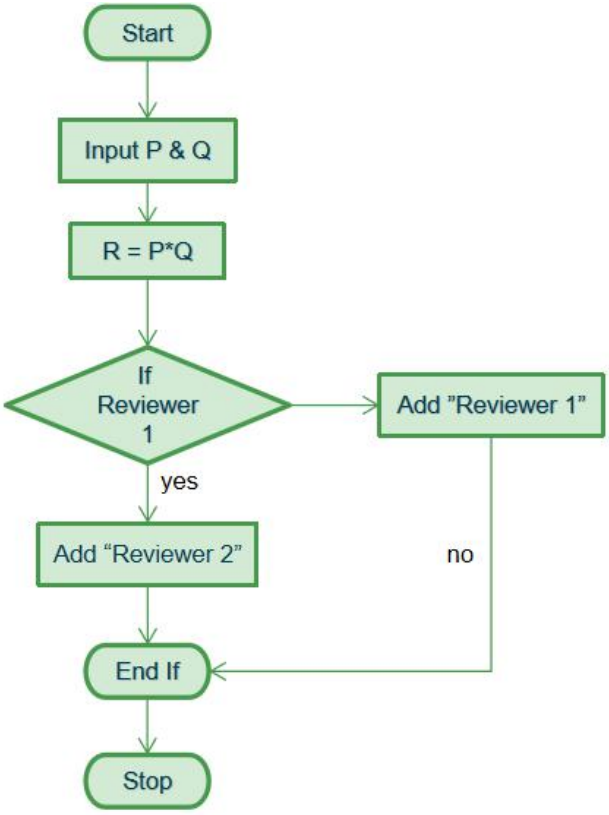
8.) **Adding Reviewers for Approval :**

If the editor adds a reviewer to the reviewers list, it must be updated in Reviewer Section.

This test case can tested using White Box Testing (Branch Coverage) since, the editor can add any numbeer of reviewers to reviewers List..

Branch Coverage :

- *Since Statement coverage is not sufficient to test the entire pseudo code, we would require Branch coverage to ensure maximum coverage.*
- *It is also known as **Edge Coverage.***



For Branch coverage, we have 2 test cases,

INPUT: P - Reviewer 1

Q - Reviewer 2

Test_Case_01: *Choice - Reviewer 1*

Test_Case_02: *Choice - Reviewer 2*

SNO	TEST CASE OBJECTIVE	PRE CONDITION	STEPS / TEST DATA	EXPECTED RESULT	POST CONDITION	CONDITION PASS/FAIL
8	Choice	If Username and Password of the user is Valid.	If Choice is "Reviewer 1"	Add products to "Reviewer 1"	Add Reviewer 1	PASS
			If Choice is "Reviewer 2"	Add products to "Reviewer 2"	Add Reviewer 2	PASS

Module - 4 : Editor Section

9.) **Stage 1 for approval :**

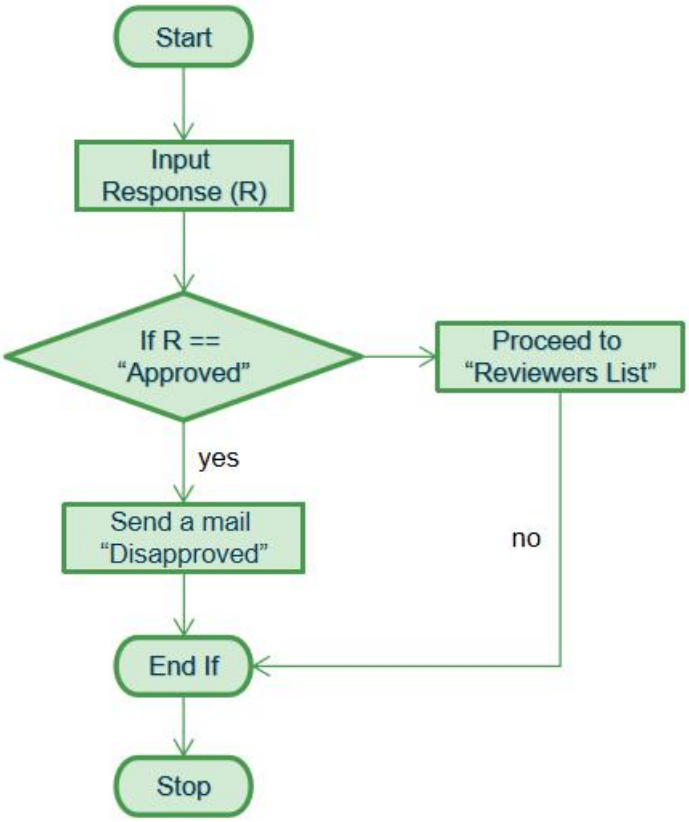
If the Editor wishes to approve a manuscript, proceed to the Reviewers List, else if he/she wants to disapprove the manuscript, the manuscript must be disapproved.

This test case can tested using White Box Testing (Branch Coverage) since, the Editor can approve manuscripts to proceed to reviewers list, else disapprove at the beginning.

For Branch coverage, we have 2 test cases,

Test_Case_01:
Choice – Approve

Test_Case_02:
Choice -- Disapprove



SNO	TEST CASE OBJECTIVE	PRE CONDITION	STEPS / TEST DATA	EXPECTED RESULT	POST CONDITION	CONDITION PASS/FAIL
9	Choice	If Username and Password of the user is Valid.	If Choice is "Approve"	Proceed to Reviewers List	Display Reviewers List	PASS
			If Choice is "Disapprove"	Display "Disapproved"	Send mail regarding disapproval	PASS

Module - 4 : Reviewer Section

10.) Stage 2 for Approve/Disapprove Manuscript :

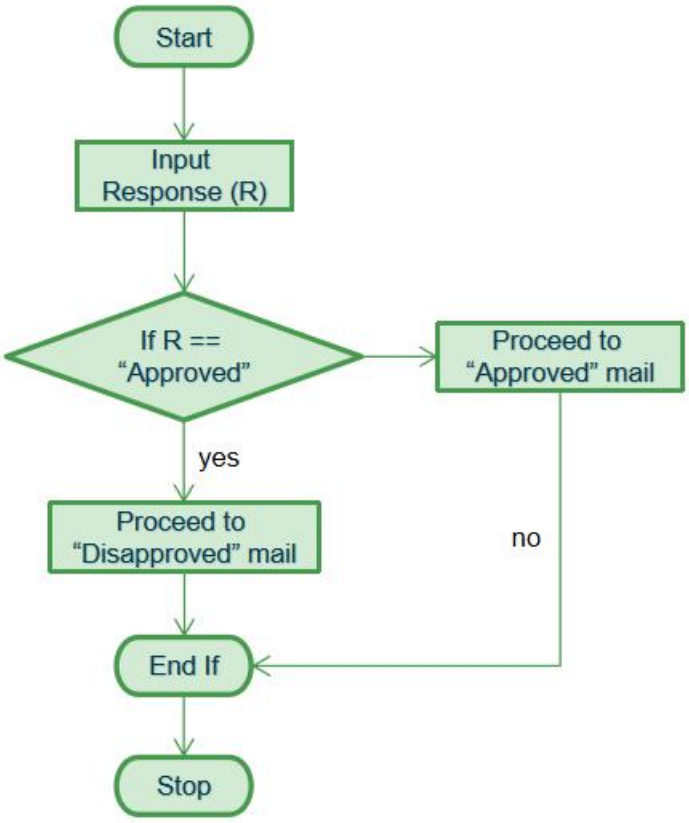
If the Reviewer wishes to approve a manuscript, proceed with sending mail as "Submission Accepted",
else if
he/she wants to disapprove the manuscript, the manuscript must be disapproved followed by sending mail as "Submission Disapproved".

This test case can tested using White Box Testing (Branch Coverage) since, the Editor can approve manuscripts to proceed with "Success" mail message, else disapprove to proceed with Not Accepted" mail message.

For Branch coverage, we have 2 test cases,

Test_Case_01:
Choice – Approve

Test_Case_02:
Choice -- Disapprove



SNO	TEST CASE OBJECTIVE	PRE CONDITION	STEPS / TEST DATA	EXPECTED RESULT	POST CONDITION	CONDITION PASS/FAIL
9	Choice	If Username and Password of the user is Valid.	If Choice is "Approve"	Add to Approved submissions in Author Main Menu	Proceed to "Success" mail message	PASS
			If Choice is "Disapprove"	Add to Disapproved submissions in Author Main Menu	Proceed to "Disapproved" Mail message	PASS