

Editorial Support for Data-Driven Publication Management System

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Abstract: *The "Editorial Support for Data-Driven Publication Management System" is an advanced web-based solution designed to revolutionize scholarly publishing processes by harnessing the computational capabilities of modern computer systems. It automates submission, review, and publication processes, enabling contributors worldwide to submit articles for assessment and publication effortlessly. Reviewers are assigned articles electronically, streamlining the review process without the need for physical copies. Authors can access feedback and assessment forms online, facilitating efficient revisions and corrections. This system's web-based nature ensures global accessibility to published articles, addressing the usability improvements highlighted in user feedback to enhance the online review process effectively.*

Keywords: Manuscript Submission, Peer Review Process, Publication Tracking, Editorial Workflow

I. INTRODUCTION

As the requirement for online frameworks expansions in our social, business and instructive area. There is likewise need for online frameworks in the Exploration and Distribution region to make their exercises more straightforward and robotized. Diaries are for the most part utilized by Specialists to distribute their investigates with the goal that many individuals all over the planet can involve the examination for a few purposes. Online Diary The board frameworks are intended to decrease pressure made by the patrons, diary directors and different specialists by changing the manual cycles over completely to online cycles. Records and subtleties of movements of every kind did on the framework can be followed effectively and actually.

1.1 OBJECTIVES

The essential targets of this framework community on fostering a complete, electronic stage that fundamentally works on the proficiency and openness of the article accommodation and distribution process for benefactors, scientists, and oversees the same. This framework is intended to progress from a manual accommodation cycle to a completely computerized one, permitting benefactors and specialists to present their articles straightforwardly on the web. This shift diminishes the requirement for actual taking care of and guarantees quicker, more helpful entries, taking special care of a more extensive crowd and improving on access. Moreover, a vigorous accommodation following element is implanted inside the framework, furnishing patrons with constant updates on the situation with their articles as they progress through different phases of survey and distribution. This component improves straightforwardness and permits supporters of screen and deal with their entries effectively, offering an unmistakable, coordinated perspective on all articles they have submitted, alongside definite experiences into each article's situation in the survey cycle.

For heads, the framework gives an effective, concentrated device for accommodation the board. It empowers directors to see and download all entries for evaluation, guaranteeing each article goes through an intensive assessment process before distribution. This concentrated storehouse of entries considers more prominent oversight, assisting chairmen with keeping up with quality control and consistency in their distribution principles. Besides, the framework incorporates a web-based distribution the board include, which permits chairmen to sort out and transfer all distributed papers by volumes and issues. This design guarantees that clients can explore distributed works easily, getting to articles in light of volume, issue, or other coordinated measures.

II. EXISTING SYSTEMS VS PROPOSED SYSTEM

Current journal publication management processes frequently depend on manual or to some degree advanced work processes, which can be awkward, tedious, and inclined to mistakes. In these frameworks, givers might submit articles by means of email or actual duplicates, which prompts shortcomings in sorting out, following, and assessing entries. Accommodation following is many times restricted or missing, making it hard for supporters of stay educated about the status regarding their articles all through the audit and distribution cycle. The audit interaction itself is every now and again manual, with restricted or postponed criticism channels, which can dial back distribution courses of events. Moreover, sorting out distributed works by volumes and issues frequently includes work serious cycles that upset speedy access and simpler route for clients. Correspondence between givers, editors, and diary supervisors regularly depends on direct messages or messages, expanding the gamble of missed or deferred reactions. This absence of robotization and concentrated administration influences both the straightforwardness and proficiency of the distribution interaction, restricting the compass and effect of examination discoveries.

The proposed system tries to address these limits by carrying out a completely computerized, mechanized stage that upgrades diary distribution the executives. It takes into consideration online article entries, dispensing with the requirement for physical or email-based entries and guaranteeing simple metadata the board for each article. An accommodation following module gives constant updates, empowering supporters of screen their article's advancement all through the survey interaction. For overseers, the framework offers a smoothed-out survey module that takes into consideration fast downloading, evaluation, and organized input utilizing an internet-based evaluation structure, guaranteeing an opportune and coordinated assessment. Also, the distribution the executives highlight permits heads to sort out distributed articles by volumes and issues, improving availability and route for clients. A correspondence module robotizes warnings, keeping all partners informed at each phase of the accommodation and survey process. With an easy to use web interface, this framework underlines proficiency, straightforwardness, and versatility, making it simpler for diary supervisors, editors, and supporters of team up consistently. This smoothed out approach speeds up distribution work processes as well as supports the more extensive scattering of exploration discoveries on a worldwide scale, answering really to the developing interest for computerized distribution arrangements in the examination local area.

III. SYSTEM DESIGN AND IMPLEMENTATION

The design and implementation of the "Editorial Support for Data-Driven Publication Management System" is focused on revolutionizing journal publication management by streamlining workflows and enhancing accessibility for contributors, editors, and administrators. This electronic framework is created utilizing Python and incorporated inside an easy to use point of interaction to improve on web-based entries, constant following, and thorough administration of distribution processes. With powerful instruments and high level modules, the stage upholds consistent article accommodation, following, and coordinated distribution by volumes and issues. Moreover, the framework incorporates different functionalities, for example, mechanized input for assessors and notice highlights, to guarantee clear and ideal correspondence with benefactors. The following is a top to bottom investigate the framework configuration process, the equipment and programming prerequisites, and the structural outlines that detail every part's job in supporting an effective, information driven distribution work process.

Hardware and Software Requirements

Hardware Requirements:

- Minimum RAM: 2 GB
- Processor: A modern multi-core processor (e.g., Intel Core i5 or equivalent).
- Storage: Solid State Drive with at least 256GB of storage for faster data access and processing

Software Requirements

- Operating system: Windows 10/11 or a Linux
- Programming language: JavaScript, Python, HTML, and CSS
- Database management system: MySQL

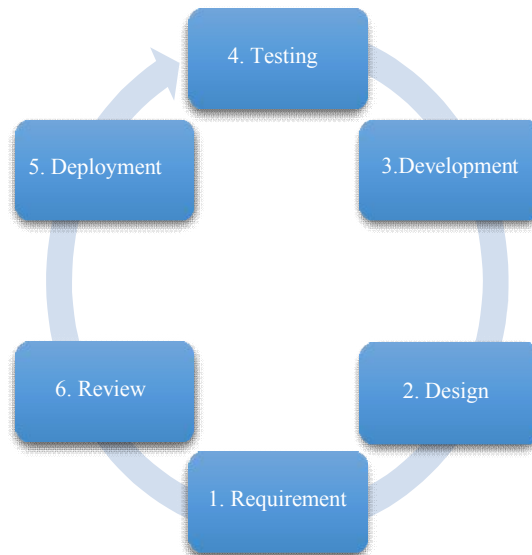
- Integrated development environment: Visual Studio Code

The system's key modules include:

- Web based Submission of manuscript: Enable authors to register and submit manuscript to the journal directly through the web site
- Real time tracking of manuscript: Author are able to track the submission through the editorial process (awaiting review, in-review, accepted as it is, not accepted, major revisions required etc.)
- Peer Review: The peer review module serves as the pivotal quality control center for manuscripts submitted to the journal. Editors meticulously match manuscripts with experts who conduct thorough reviews.
- Editorial Management Module: The editorial management module equips editors with the tools needed to oversee the entire publication process. It includes features for managing submitted manuscripts, coordinating peer review assignments, making publication decisions, and scheduling articles for publication.
- Publishing of the e-Journal: This feature allows the journal managers to publish all accepted articles on the journal website in any format (preferably PDF format) according to their volumes and issues.

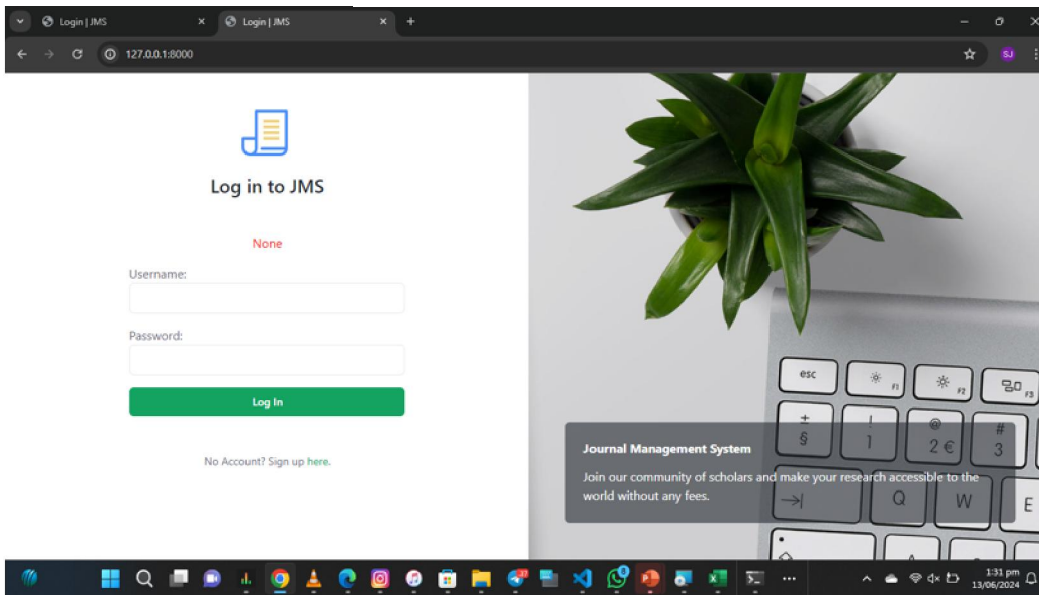
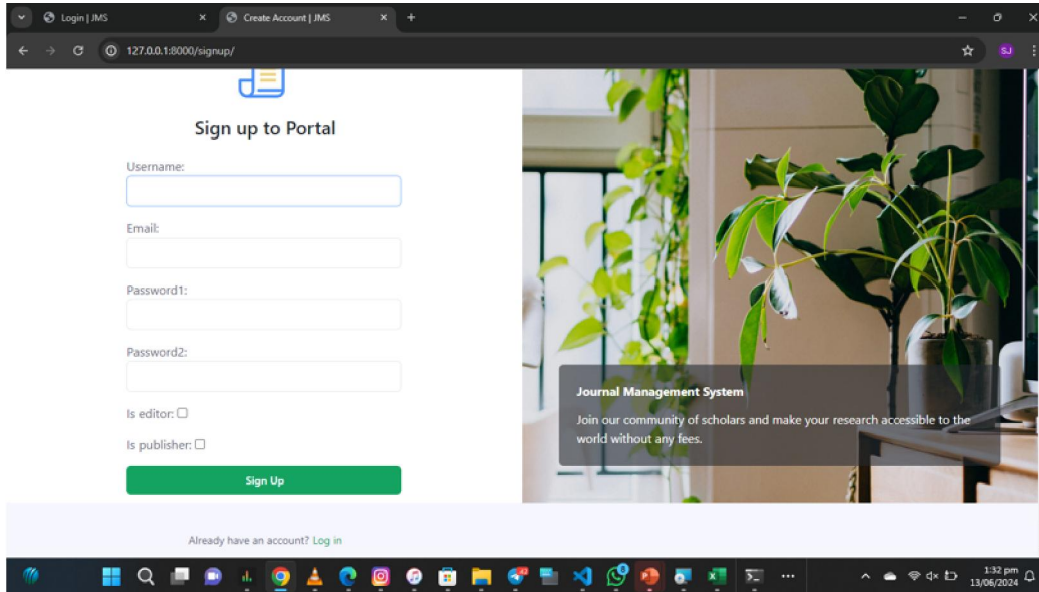
IV. METHODOLOGY

The Editorial Support for Data-Driven Publication Management System is being developed using Agile methodology, which involves breaking down the project into manageable tasks or user stories, prioritizing based on stakeholder input, and working in iterative cycles called sprints. Each sprint begins with a planning meeting where tasks are selected from the product backlog, followed by phases of development, testing, and review.



Input Design Screenshots

These Screenshot depicts the system' input channels which includes user authentication such as Login page, Account creation page, upload book and Manuscript Submission.



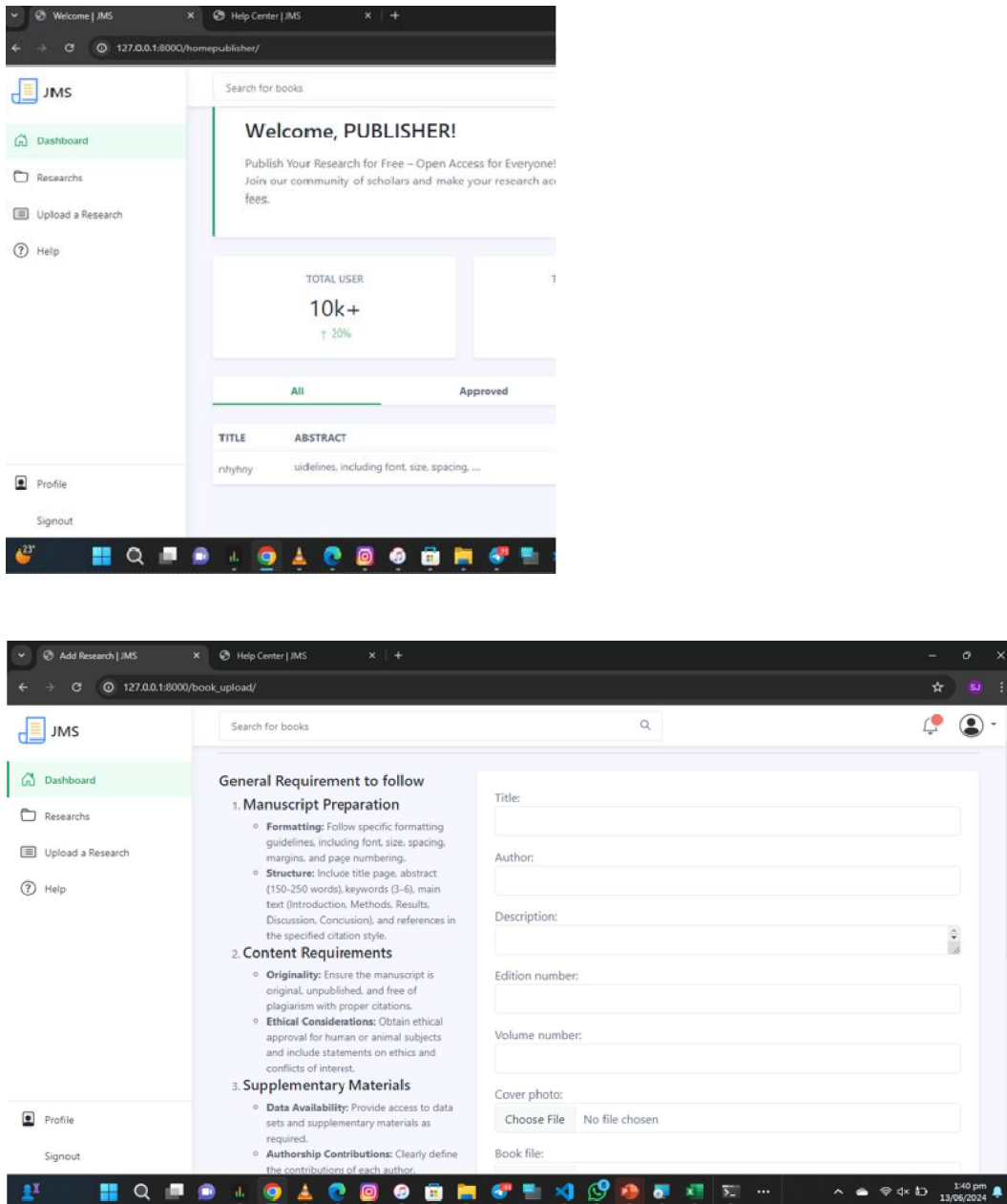
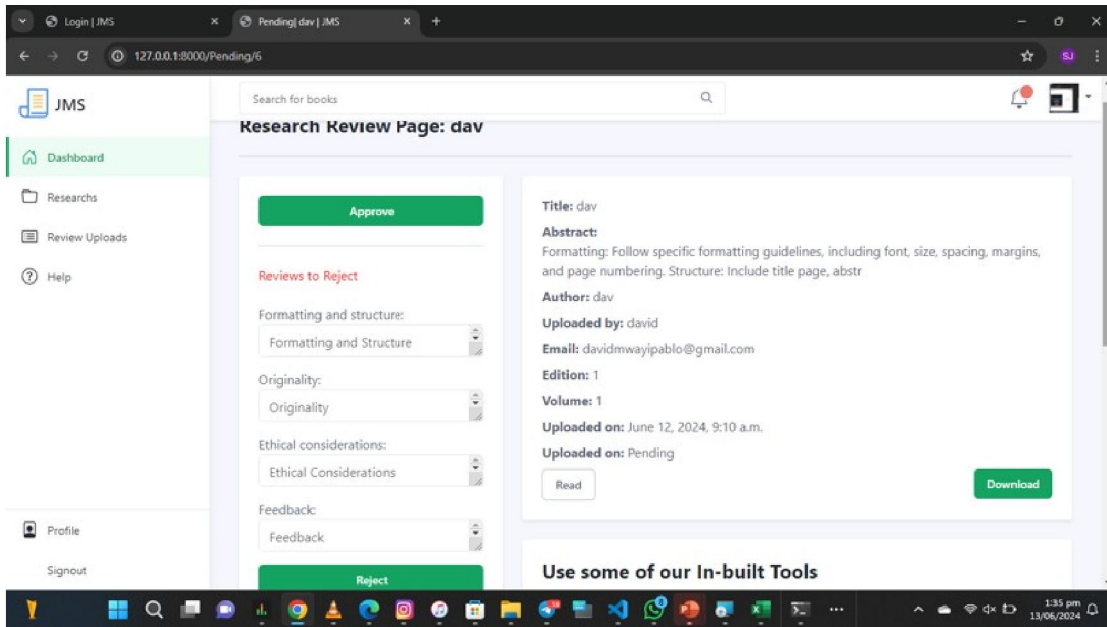
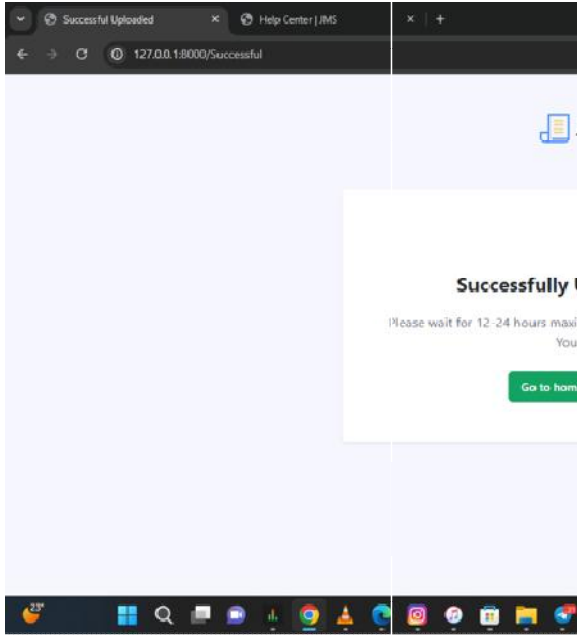


Fig 1. Input Screenshots

Output design Screenshots

These images depict scenarios where the user interacts with the system to view submitted manuscripts, track their review and approval status, and access finalized publications for download or sharing within the platform



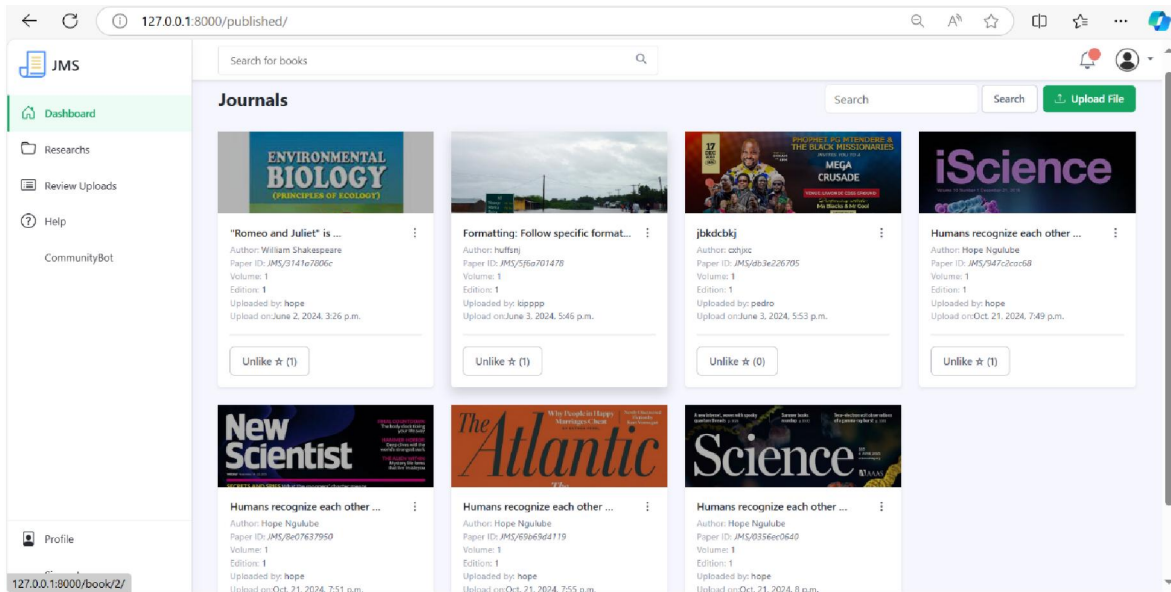


Fig 2. Output Screenshots

System Architecture

The system architecture is structured into three layers: presentation (web or mobile interfaces), application (core functionality and business logic), and data (database management). This design separates concerns for scalability and maintainability, with key components like authentication modules, data processing units, and API gateways ensuring secure and efficient communication. This approach supports seamless user interaction and operational reliability under varying workloads.

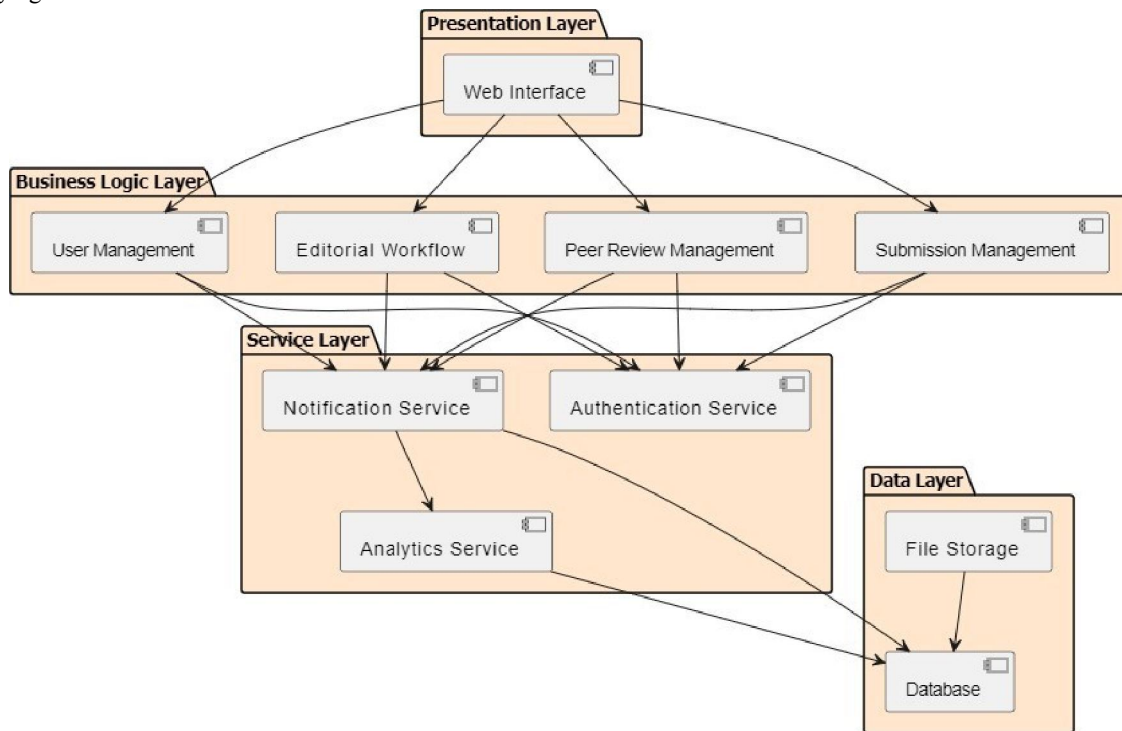


Figure 3. System Architecture

Data Flow Diagram

This data flow diagram illustrates how data moves through the system and how different features interact with it from input to output. It provides an overview of how data is collected, processed, and stored. For instance, users log in or register their accounts, with the data being validated and securely stored in the database. Once logged in, users can access the dashboard to interact with various modules, such as submitting manuscripts, reviewing submissions, or approving publications. Additionally, data flows include tracking the review process, storing updates, and generating final outputs for publication

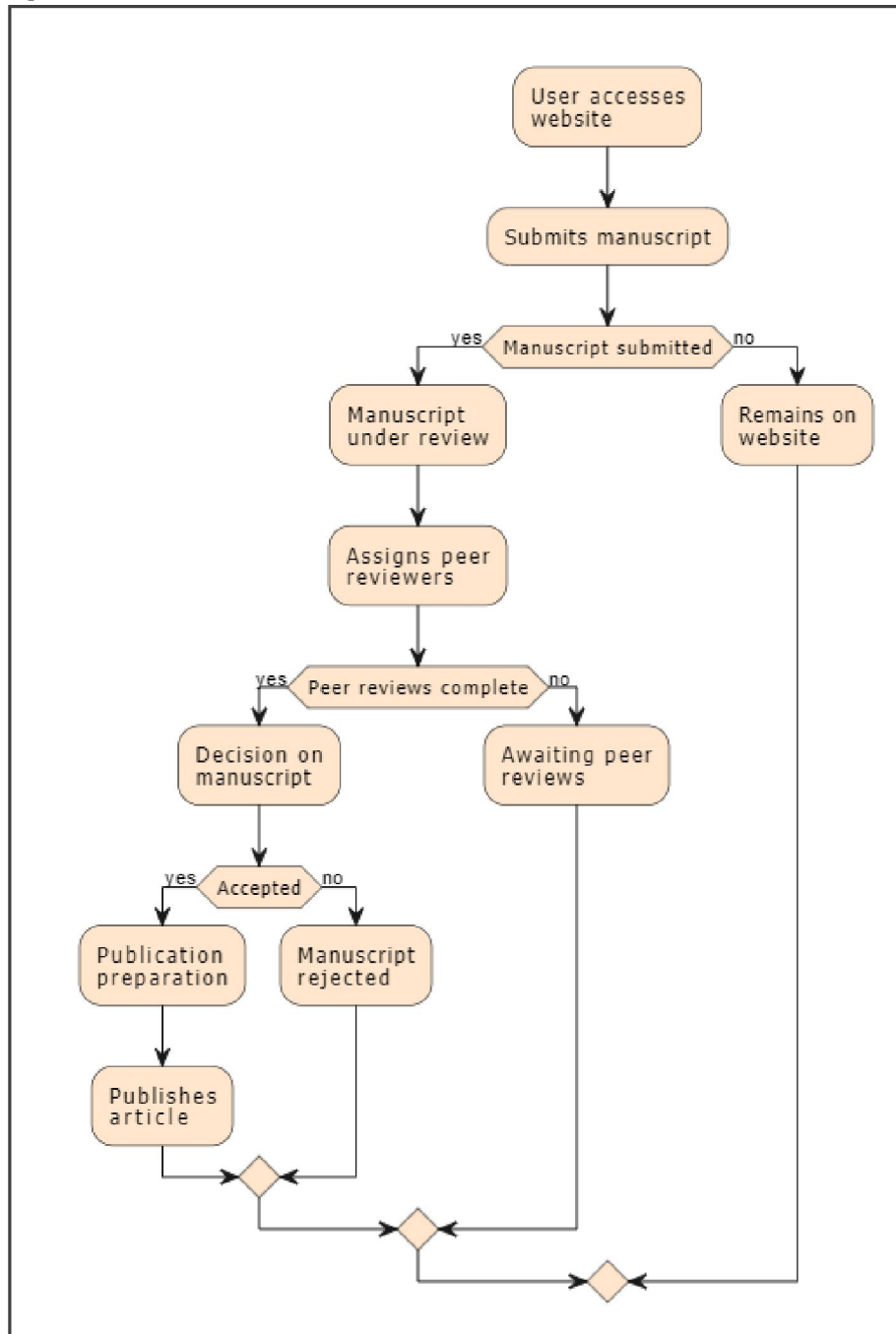


Figure 4 Data Flow Diagram

Class Diagram

The Class Diagram for the Editorial Support System outlines key entities like Manuscript, User, Review, Publication, and Role with their attributes and methods. Connections, for example, affiliations and legacies are portrayed, interfacing these classes. Heads, Donors, Analysts, and Clients connect with the framework through unambiguous use cases displayed as ovals. This outline fills in as a plan for framework design, characterizing information designs, ways of behaving, and collaborations to direct turn of events and work with correspondence among partners. It guarantees productive distribution the board and upgrades client association.

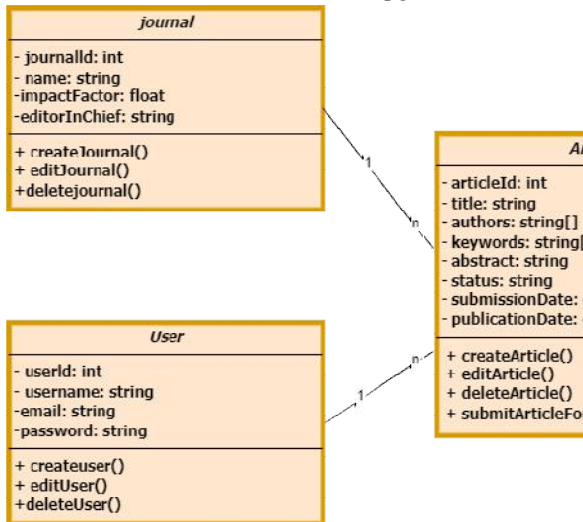


Figure 5. Class Diagram

V. RESULTS

The "Editorial Support for Data-Driven Publication Management System" has proven effective in streamlining journal management through automation and centralized workflows. Key results indicate that features such as online submissions, real-time tracking, and automated notifications enhance accessibility, transparency, and communication between contributors, editors, and reviewers. The review and feedback module ensures consistent assessments, while integrated publication management simplifies access to published articles. These findings demonstrate the potential of data-driven digital solutions to improve journal operations, particularly in resource-constrained environments, facilitating efficient dissemination of research.

VI. DISCUSSION

The study highlights the transformative impact of modernized systems on journal management, emphasizing the importance of automation and data-driven approaches in enhancing operational efficiency. By addressing challenges such as communication gaps and time-consuming processes, the system fosters greater transparency and collaboration among stakeholders. Moreover, its effectiveness in resource-limited settings underscores the accessibility of these solutions for diverse academic communities. These advancements not only streamline journal workflows but also promote broader adoption of innovative practices, paving the way for improved academic growth and knowledge sharing globally.

VII. CONCLUSION

The "Editorial Support for Data-Driven Publication Management System" represents a significant step forward in modernizing journal management processes. Through the integration of automation and centralized workflows, the system effectively addresses challenges such as inefficient communication, time-intensive processes, and limited accessibility. Features like online submissions, real-time tracking, automated notifications, and streamlined review modules ensure improved collaboration and transparency among contributors, editors, and reviewers. The system's

ability to simplify publication access and facilitate consistent assessments highlights its practicality and user-friendliness.

Furthermore, its effectiveness in resource-limited environments demonstrates its potential for widespread adoption across diverse academic and research communities. By advancing knowledge dissemination and promoting innovation in scholarly communication, this system contributes to enhancing academic growth, paving the way for a more efficient, transparent, and inclusive approach to journal management.

VIII. ACKNOWLEDGMENT

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