MOTILAL NEHRU NATIONAL INSTITUTE OF TECHNOLOGY
PRAYAGRAJ : INDIA (211004)

A PROJECT REPORT ON

"Conference Management System"

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Under the guidance of
Prof. Anil Kumar Singh
Associate Professor, CSED

in partial fulfillment of the requirements for the award of the Degree
of
Master of Computer Application
Department of Computer Science and Engineering
MOTILAL NEHRU NATIONAL INSTITUTE OF TECHNOLOGY
Prayagraj, Uttar Pradesh - 211004
May 2024

DECLARATION

We hereby declare that the project report entitled "Conference Management System" submitted by us to the MOTILAL NEHRU NATIONAL INSTITUTE OF TECHNOLOGY during the academic year 2023-24 in partial fulfillment of the requirements for the award of the Degree of Master of Computer Application is a genuine record of the project work carried out by us under the guidance and supervision of Dr. Anil Kumar Singh. We also affirm that the work described in this project has not been and will not be submitted, in whole or in part, for any other degree or diploma at this institute or any other university.

Place: Prayagraj : Uttar Pradesh
Date: May 7, 2024

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CERTIFICATE

This is to certify that the report titled "**Conference Management System**" submitted by **DEEPAK NAGDA (2022CA025)**, **ARPANA KUMARI (2022CA014)**, **KARTIK CHANDRA (2022CA043)** to the MOTILAL NEHRU NATIONAL INSTITUTE OF TECHNOLOGY in partial fulfillment of the requirements for the award of the Degree of Master of Computer Application is a genuine record of the project work conducted by them under our guidance and supervision. This report, in any form, has not been submitted to any other universities or institutes for any purpose.

Supervisor
Prof. Anil Kumar Singh
Associate Professor, CSED

Place: Prayagraj, Uttar Pradesh
Date: May 7, 2024

ACKNOWLEDGEMENT

We wish to express our sincere gratitude and appreciation to all those who supported and contributed to the completion of this project.

Firstly, we extend our heartfelt thanks to our supervisor, Dr. Anil Kumar Singh, for his guidance, expertise, and continuous support throughout the project. His valuable insights and constructive feedback have played a key role in shaping the direction of this project. Our project would not have been possible without his constant guidance, support, and encouragement which helped us complete our project on time. We feel honored and privileged to have worked under his supervision. Thank you to everyone for your support and encouragement.

Thank you for your support and encouragement.

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ABSTRACT

Organizing multiple conferences can be a daunting task for organizations, particularly when faced with creating individual websites for each event from scratch. This process not only consumes time but also raises the risk of errors and inconsistencies, complicating the management of multiple conference websites concurrently. To address this challenge, organizations can adopt a template-based Conference Management System (CMS). This system provides a pre-designed, customizable website template that can be easily edited and deployed for each conference.

By adopting a template-based approach, organizations can greatly reduce the time and effort required to create conference websites, as they can simply modify the template to meet the specific needs of each event. This not only streamlines the website creation process but also ensures consistency in design and functionality across all conference websites. Moreover, a template-based CMS simplifies the hosting of conference websites, eliminating the need for organizations to manage hosting services separately.

CONTENTS

CHAPTER 1

INTRODUCTION

The Conference Management System (CMS) project aims to simplify conference organization by offering a comprehensive web-based solution. The project focuses on developing a user-friendly software platform that streamlines tasks by providing a template website. This template can be readily modified and tailored to fit the specific requirements of each conference.

1.1 Background and Context of the Project

The Conference Management System (CMS) project aims to revolutionize conference organization by providing a comprehensive web-based solution. It offers a user-friendly platform for organizers to efficiently manage all aspects of their conferences, from submissions to scheduling, enhancing the overall conference experience for both organizers and attendees. This system automates critical tasks such as posting complete event details on the website, managing authors, attendees, and reviewers, paper submissions, etc., simplifying the entire process. It finds extensive application in academic institutions, research organizations, and businesses involved in frequent conference hosting.

1.2 Purpose of the Project

With the aim to automate the process of hosting and managing conference website, the tepmplate-based conference management system is designed to help organizations significantly reduce the time and effort required to create conference websites, as they can simply customize the template to suit the specific requirements of each event.

- **Consistency:** By offering customizable website templates, the CMS ensures a uniform look and functionality across all conference sites.

- **Accessibility:** The CMS allows organizers to easily access and manage conference information from anywhere, at any time, using a web-based interface.
- **Simplicity:** The CMS provides a centralized platform for managing multiple conferences, making it easier for organizers to oversee all aspects of their events.
- **Cost-effectiveness:** The CMS reduces the need for manual website development and hosting services, saving organizations money in the long run.

1.3 Project Objectives

The objective behind this project was to create a reusable conference template website for our college, allowing us to quickly generate a new conference website whenever a conference is organized. This template-based approach reduces repetitive work, enabling us to simply input required conference details to automatically generate a website. Additionally, the system offers tools to manage key conference activities, including paper submission, paper assignment to reviewers, status updating by reviewers, and schedule management by admins. This project aims to streamline and simplify the process of creating and managing conferences.

1.4 Project Scope

The Conference Management System (CMS) project endeavors to create an accessible website template that simplifies the intricate task of managing conferences. This dynamic template will empower administrators to effortlessly tailor various facets of the conference, including the introduction, call for papers, schedules, and user profiles, thereby streamlining the entire process. By offering seamless management of conference information, encompassing essential features for paper submission and reviewer profiles, the CMS aims to significantly enhance the user experience for authors, attendees, reviewers, and administrators, fostering a more engaging and productive environment. Furthermore, the project will provide comprehensive technical support to guarantee the seamless operation of the website template. With a strong commitment to automation and simplification, the CMS project aims to revolutionize conference management, providing a flexible solution that can adapt to various conferences and events. Ultimately, the project strives to deliver a dependable, customizable, and efficient system for managing conferences, optimizing time and resource allocation while enhancing overall accuracy and efficiency.

CHAPTER 2

PROPOSED WORK

The objective of this project is to create a flexible website template tailored to streamline conference management. The primary goal is to establish a user-friendly online platform that promotes efficient conference organization, seamless information sharing, and improved attendee engagement. By incorporating modern technologies and customizable features, the CMS project aims to enhance the overall conference experience. Key features of the website template include:

- Customizable conference details: Providing sections for conference introduction, call for papers, schedules, and attendee profiles, allowing administrators to customize the website to meet specific conference requirements.
- Simplified information management: Empowering administrators to efficiently manage and update conference information, including paper submissions and reviewer profiles, through a centralized platform.
- Enhanced user experience: Enhancing the experience for conference attendees, reviewers, and administrators through a user-friendly interface and intuitive navigation.
- Technical support: Providing assistance to users in effectively utilizing the website template, ensuring a smooth and successful conference management process.

Overall the CMS project aims to simplify conference organization and enhance the overall conference experience for all stakeholders involved.

2.1 Operating Environment

The CMS application is designed to be accessible through web browsers, enabling users to access it online. All that is required to use this application is an internet connection and a device capable of accessing high-speed internet.

2.2 Methodolgy

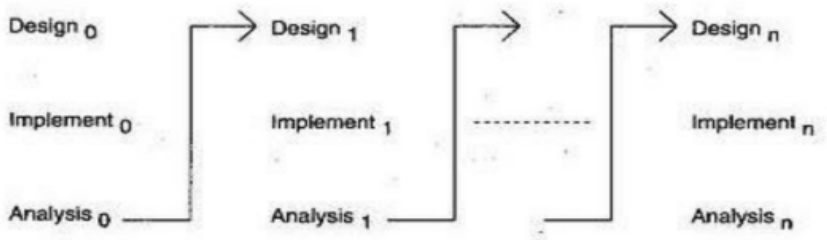
The key stages in this project include:

- Initial setup and environment configuration
- Application development
- Database integration for data storage
- Application deployment and execution

2.3 System Planning System Development Lifecycle (SDLC)

The "Iterative Life Cycle Model" was chosen for the design of this application because it does not necessitate a complete specification of needs at the outset. Instead, development begins by specifying and developing only a portion of the software, which is then evaluated to uncover additional requirements. This iterative process is repeated for each cycle of the model, culminating in the creation of a new version of the software.

2.3.1 Iterative Model Diagram



2.3.2 Advantages

- The product is developed incrementally, allowing for early detection and correction of defects, thereby preventing the propagation of issues.
- Testing and debugging are simplified, requiring fewer iterations to ensure the product behaves as intended.
- User feedback is more reliable as users can interact with tangible prototypes, eliminating the need for them to envision the final product.
- Progress is measurable, enabling the team to monitor advancements and enhancements.
- The iterative approach reduces the emphasis on extensive documentation, prioritizing design and development efforts.
- Risks are identified and mitigated in each iteration, making them manageable milestones that can adapt to evolving requirements.

2.4 Tech Stack Used

- Frontened:
  - HTML
  - CSS
  - JavaScript
  - Bootstrap
- Backened:
  - NodeJS
  - ExpressJS
  - MongoDB
- Tools used:
  - Visual Studio Code

  - Google Chrome Browser
  - Git and Github
- Packages being used:
  - fullcalendar
  - mongoose
  - bodyparser
  - express
  - express-session
  - mongodb
  - cloudinary
  - passport
  - date-fns
  - dotenv
  - ejs
  - multer
  - nodemailer
  - path

CHAPTER 3

SYSTEM DESIGN

3.1 Data Flow Diagrams (DFDs)

3.1.1 Level 0 DFD

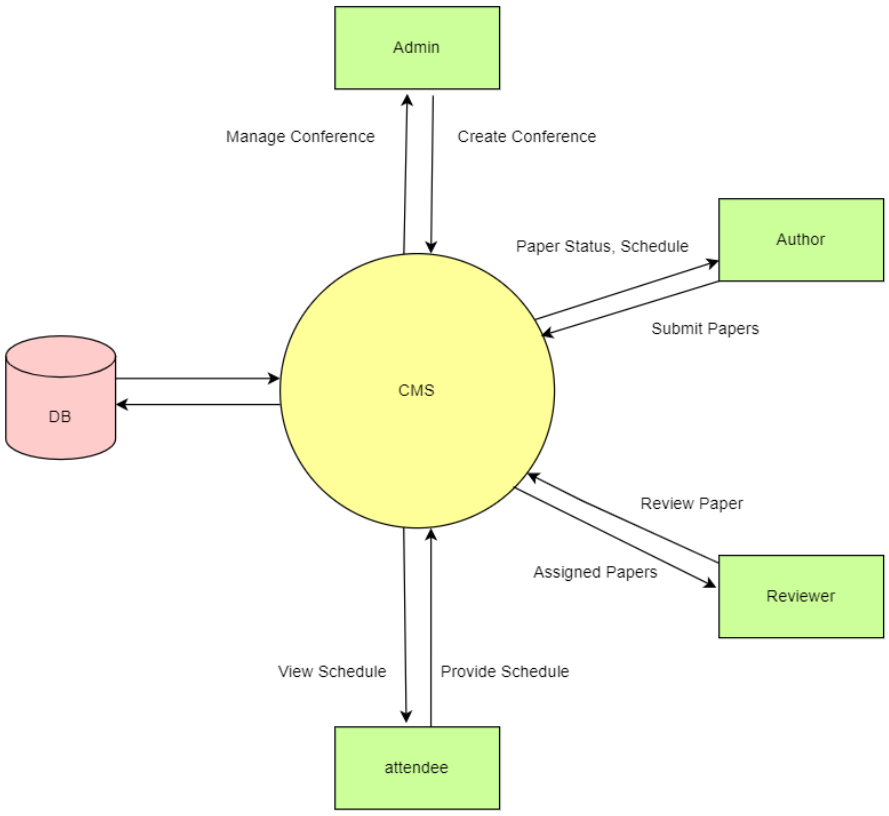


Figure 3.1: Zero DFD

3.1.2 Level 1 DFD

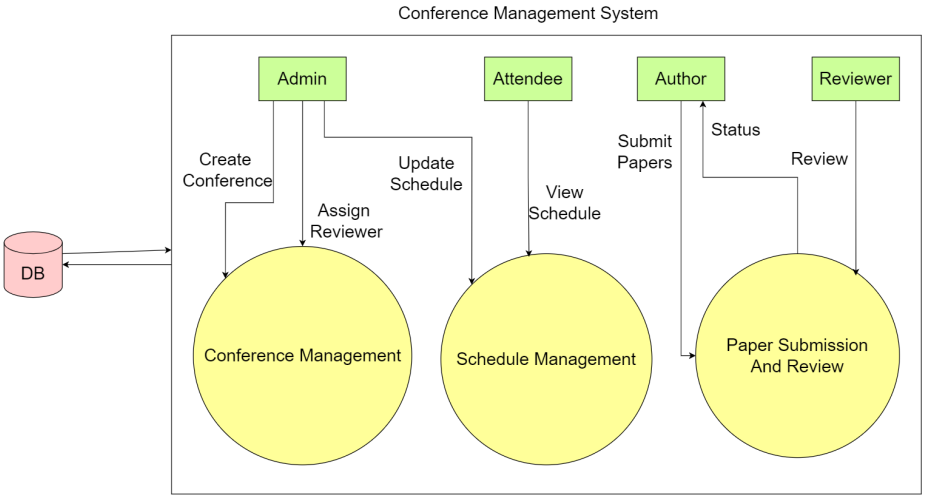


Figure 3.2: Level 1 DFD

3.1.3 Level 2 DFD

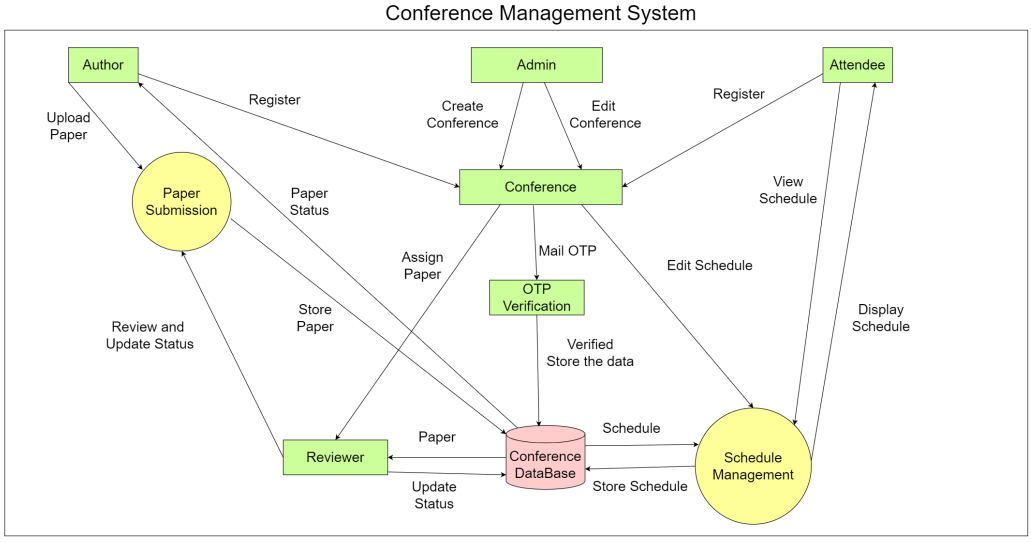


Figure 3.3: Level 2 DFD

3.2 ER Diagram

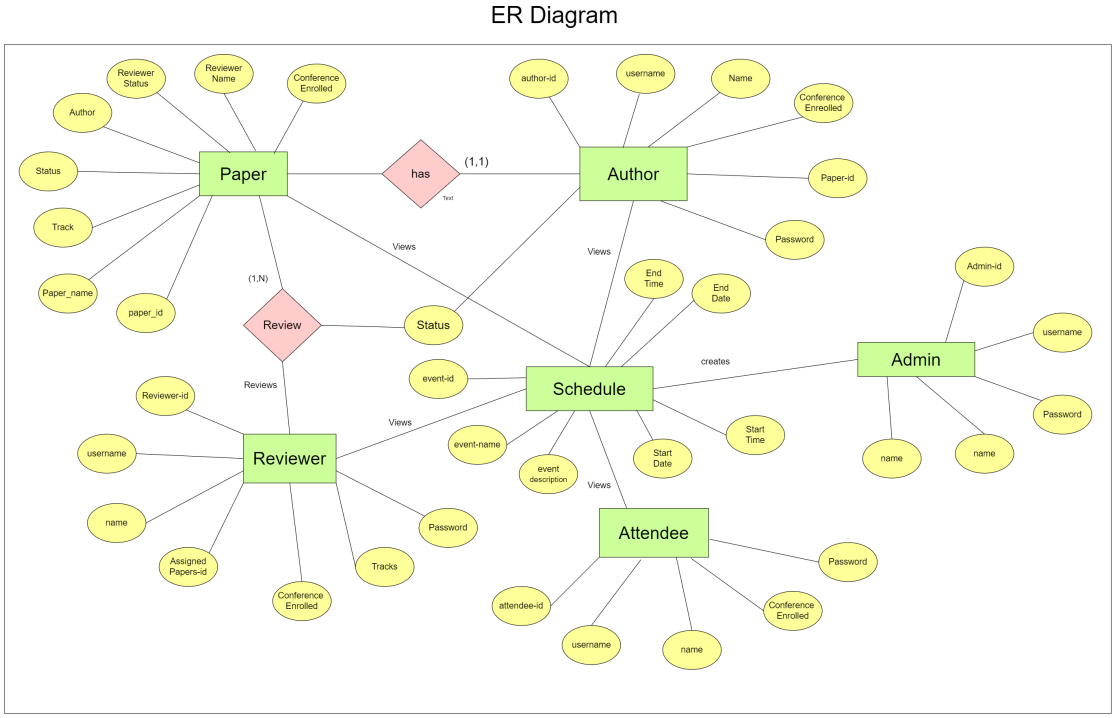


Figure 3.4: ER Diagram

3.3 UML Diagrams

3.3.1 Use Case Diagram

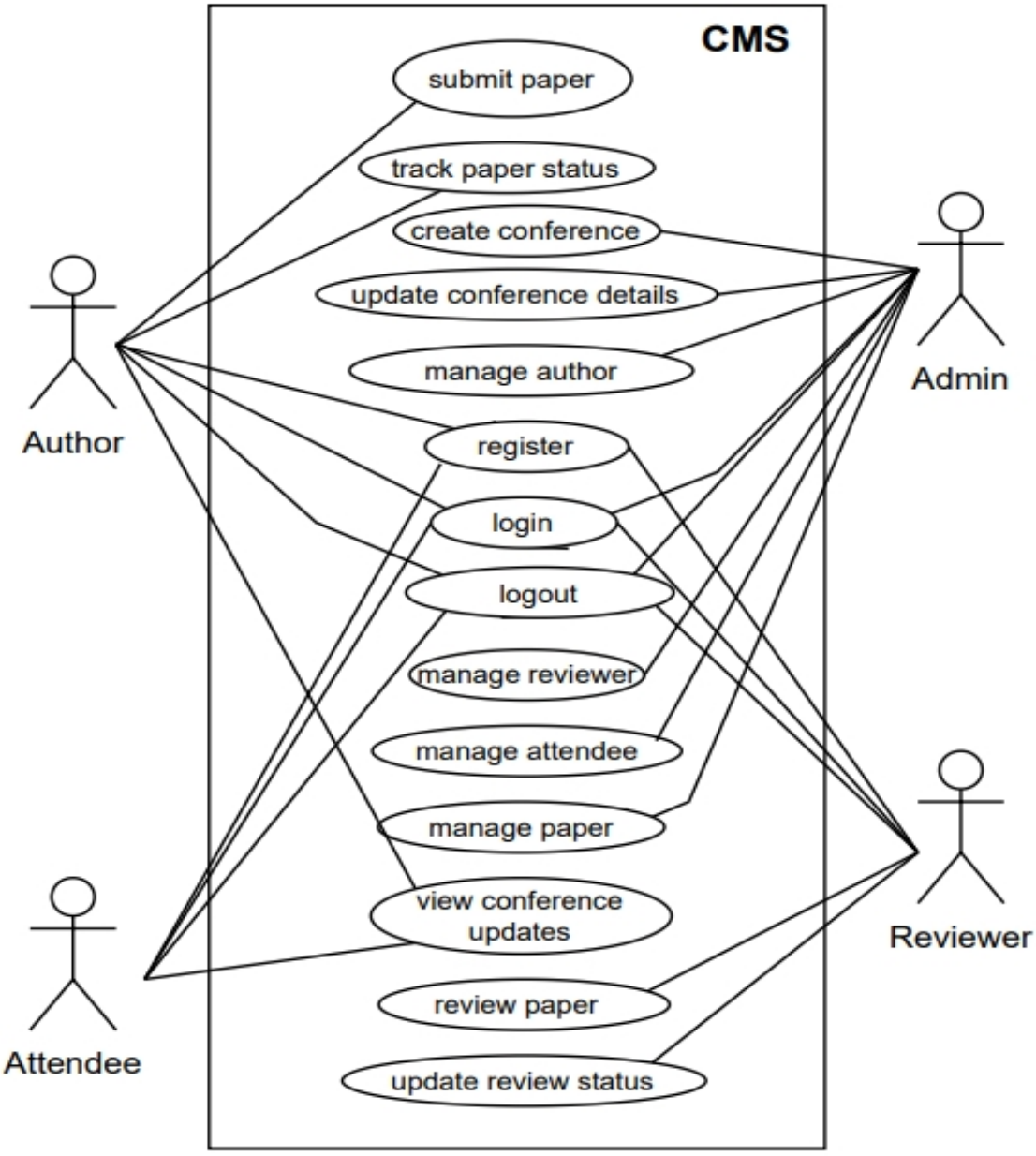


Figure 3.5: Use-case Diagram

3.3.2 Activity Diagram

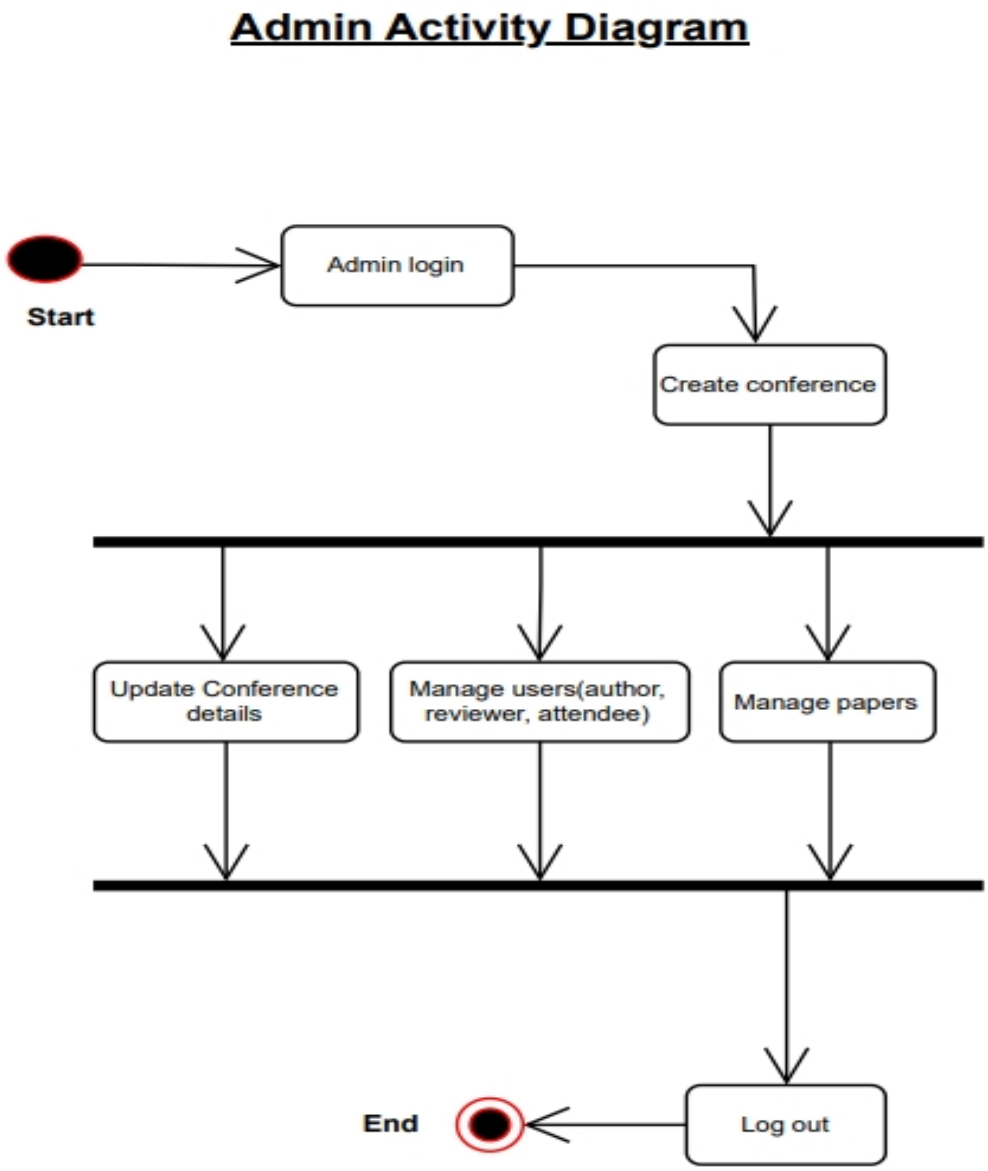


Figure 3.6: Admin Activity Diagram

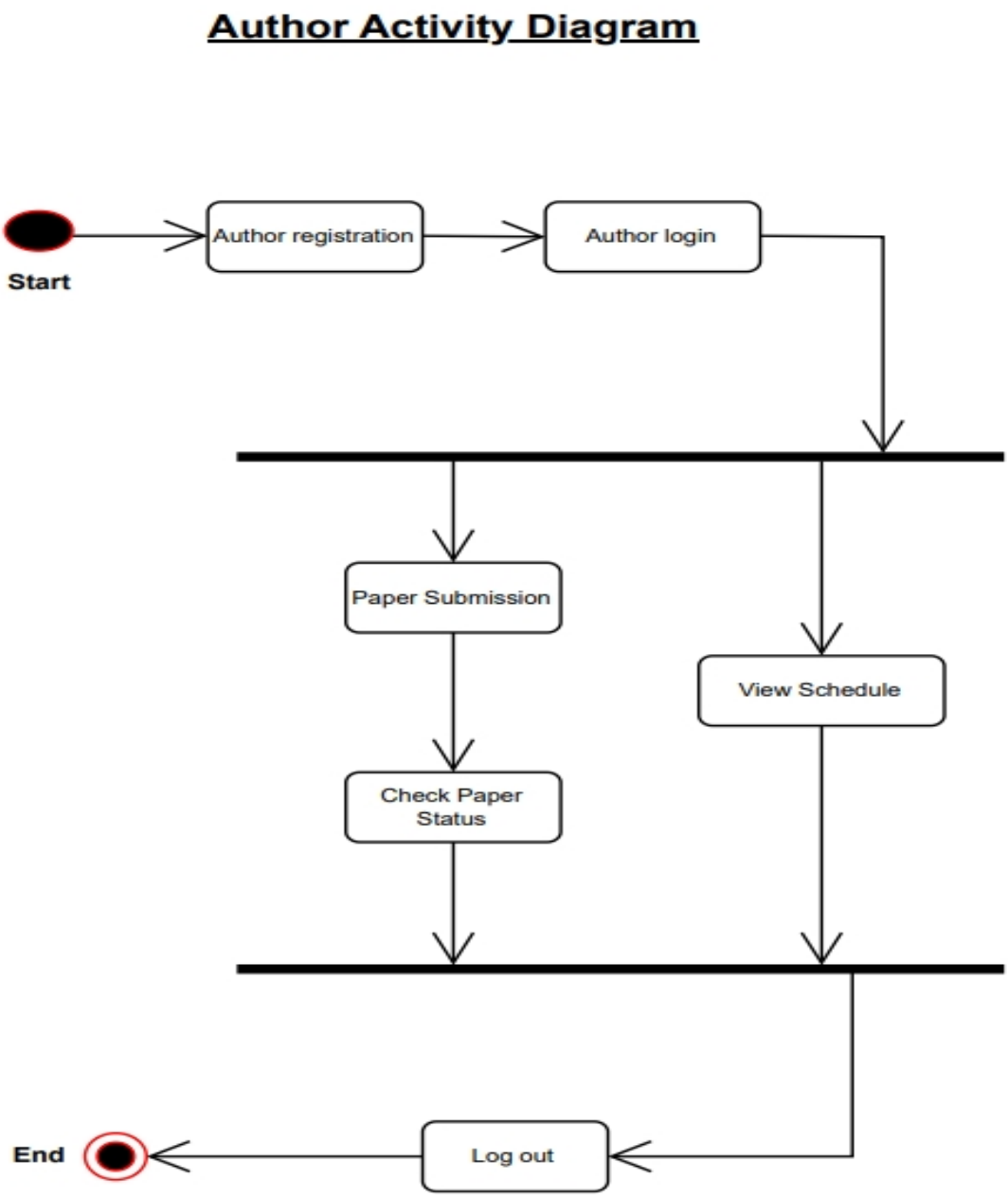


Figure 3.7: Author Activity Diagram

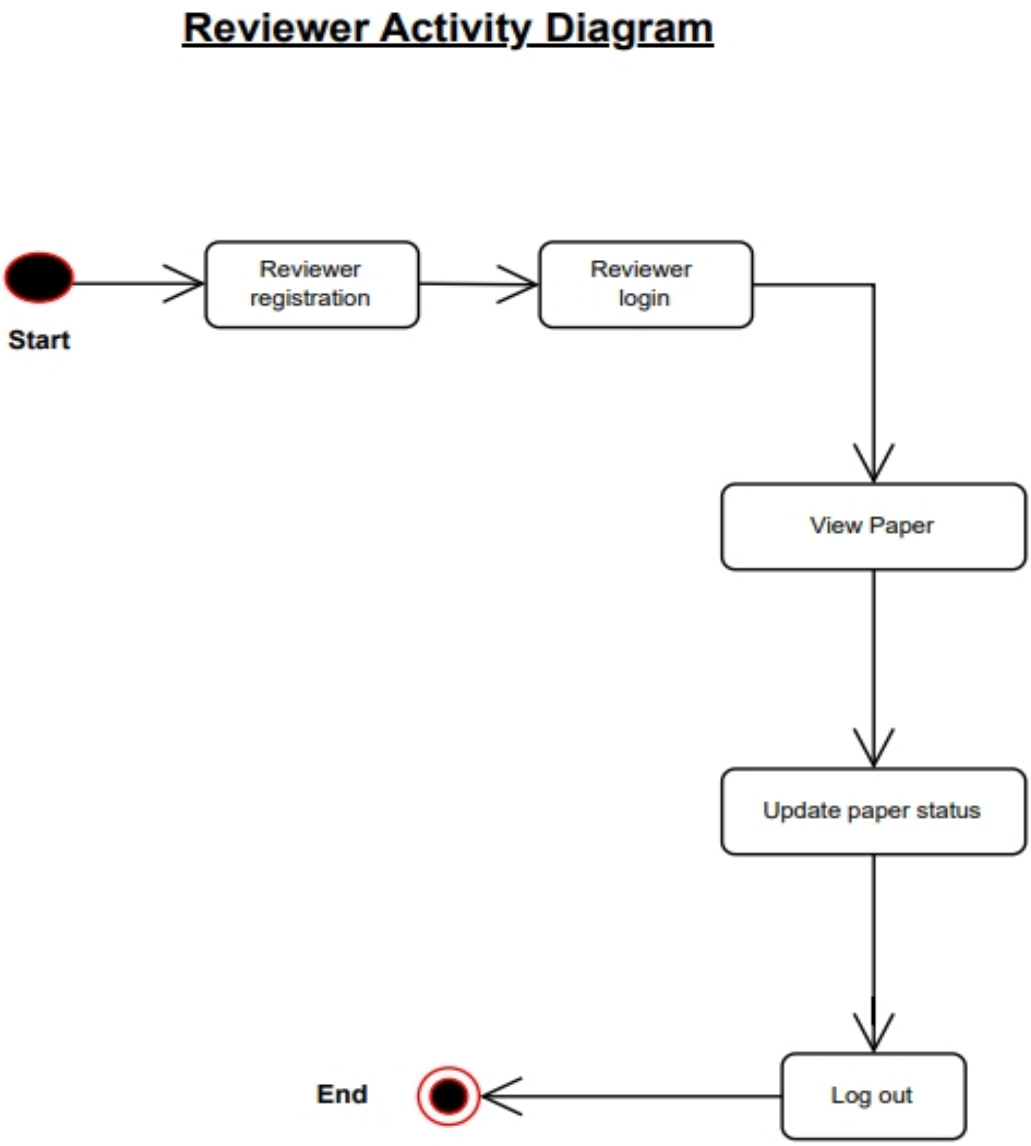


Figure 3.8: Reviewer Activity Diagram

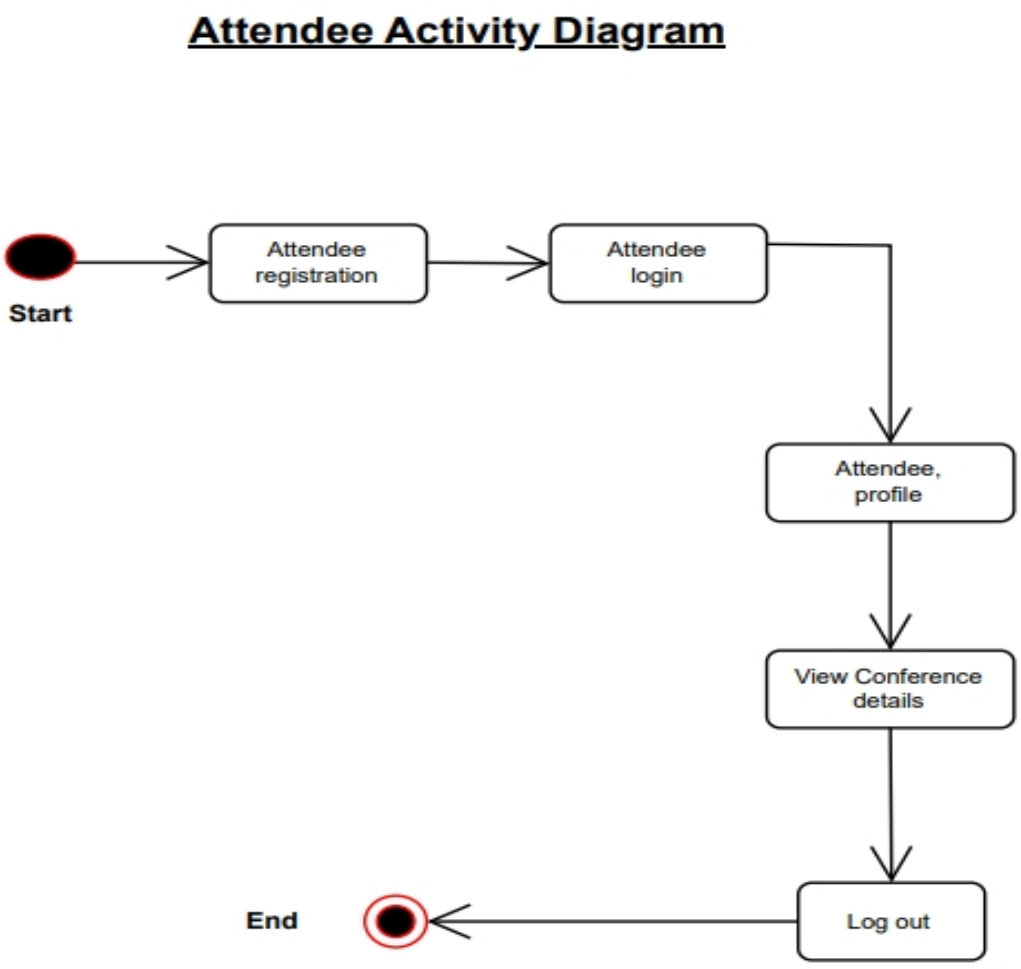


Figure 3.9: Attendee Activity Diagram

3.3.3 Sequence Diagram

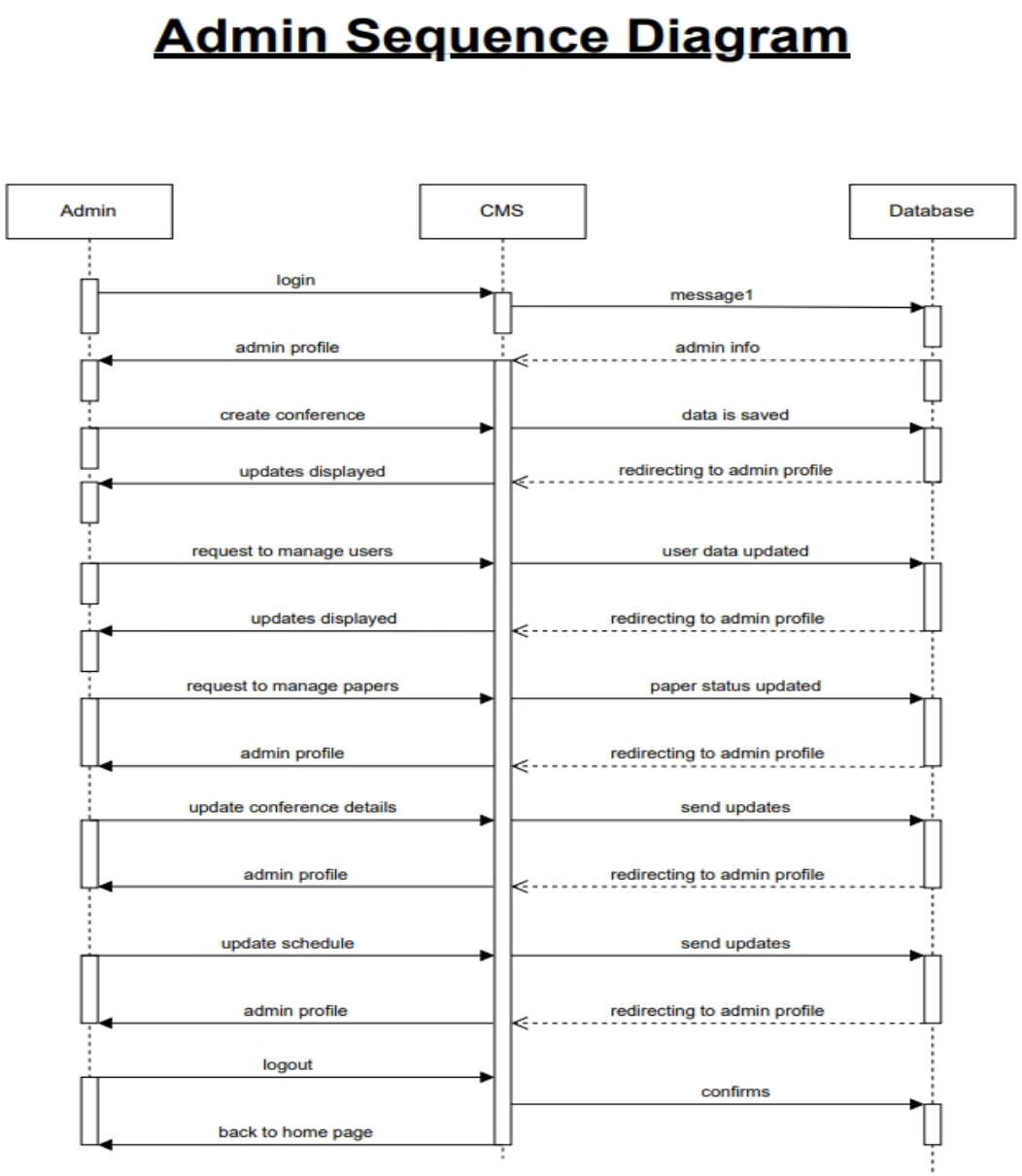


Figure 3.10: Admin Sequence Diagram

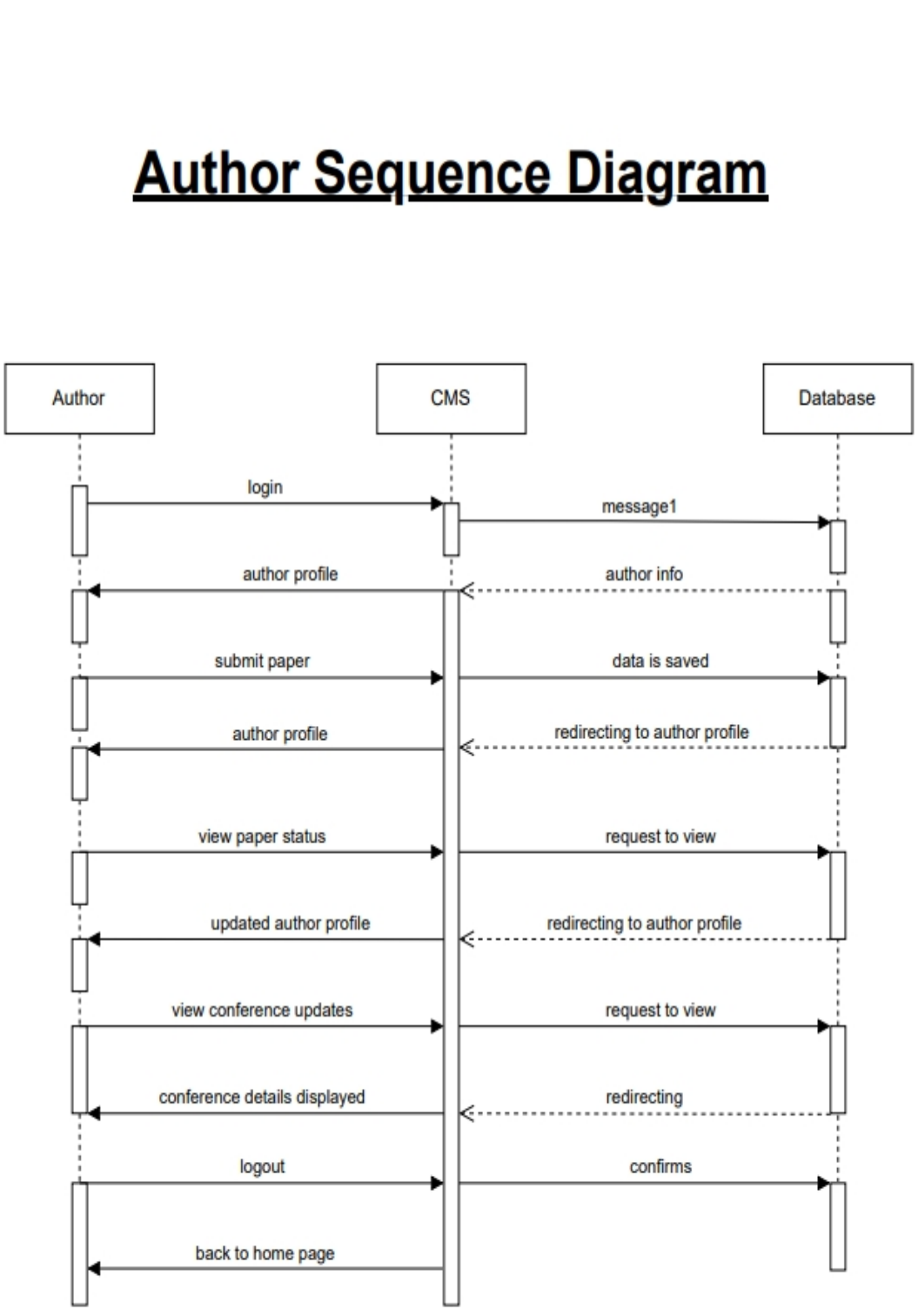


Figure 3.11: Author Sequence Diagram

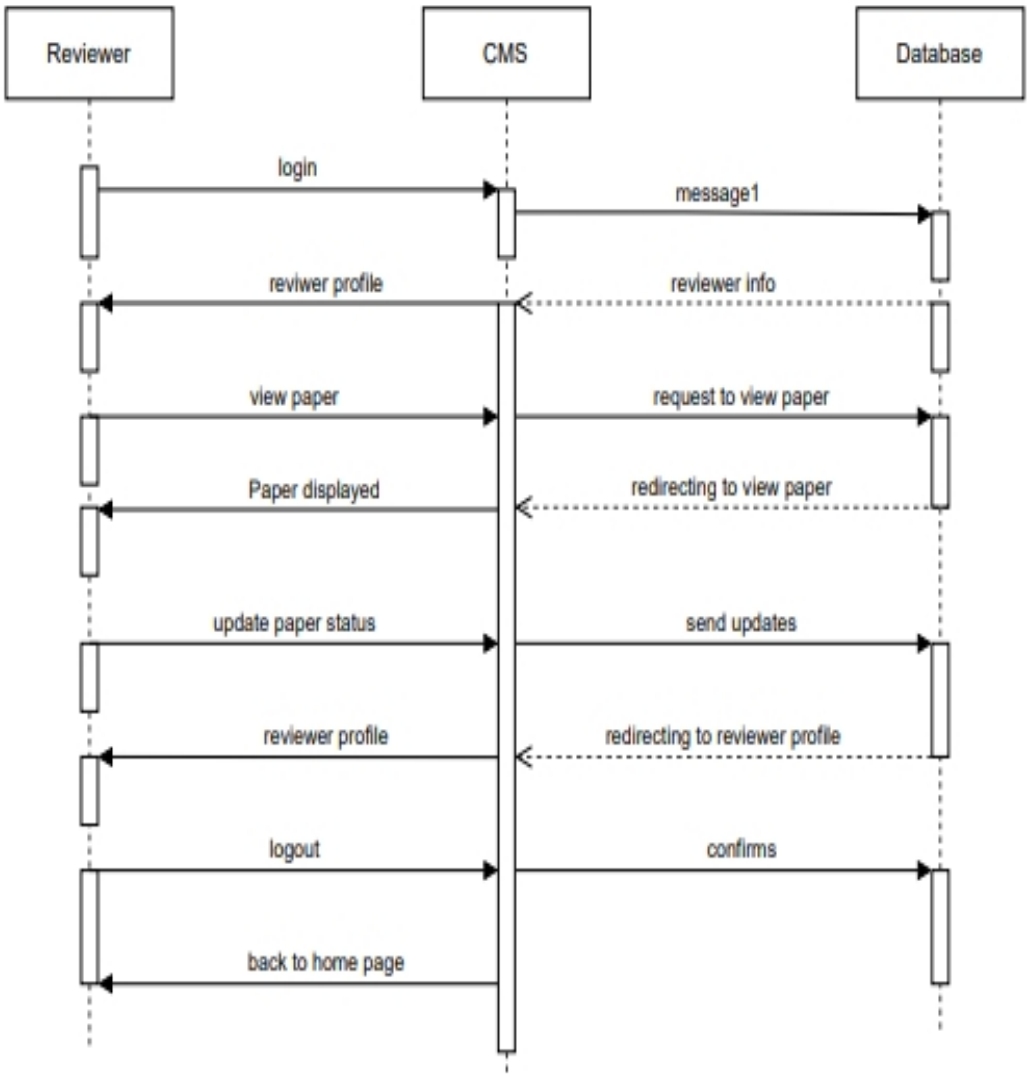


Figure 3.12: Reviewer Sequence Diagram

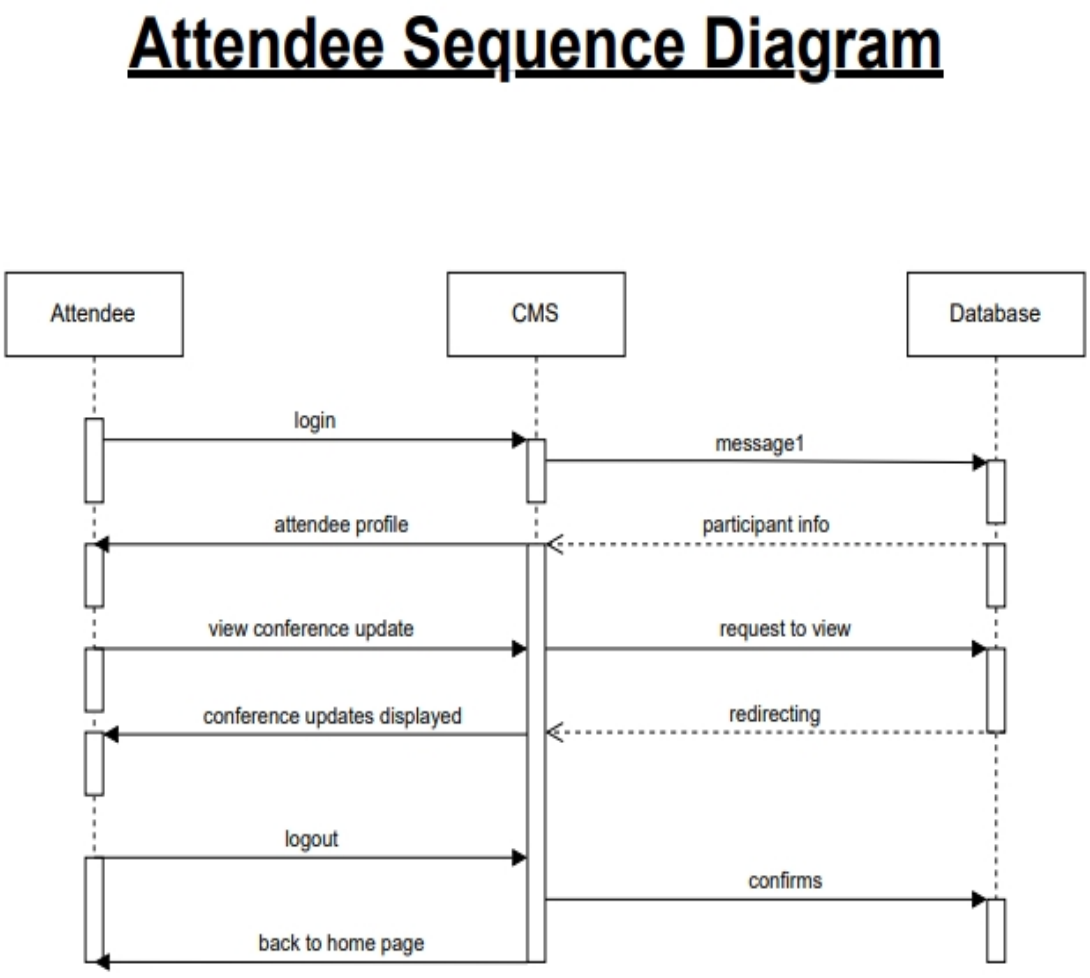


Figure 3.13: Attendee Sequence Diagram

CHAPTER 4

IMPLEMENTATION

4.1 Implementation

The implementation of the "Conference Management System" project is detailed below:

4.1.1 Admin Implementation

- **Admin Login**: Ensures that only authorized users can access the system by requiring admins to provide their username and password for secure login. Successful authentication redirects admins to the admin dashboard for administrative tasks.

- **Create Conference**: Allows admins to create new conferences within the system by specifying details such as the conference title, date, venue, and other relevant information. This feature enables admins to easily set up new conferences and provide necessary details to potential attendees.

- **Update Conference Details**: Enables admins to update conference details as needed, ensuring that information displayed to users is accurate and up to date. This feature is crucial for keeping attendees informed about any changes to the conference schedule, venue, or other important details.

- **Manage Author**: Allows admins to manage information related to authors who have submitted papers to the conference. Admins can add new authors, edit existing author details, or remove authors as needed, ensuring that author information is accurately maintained.

- **Manage Reviewer**: Enables admins to manage information related to reviewers who evaluate papers submitted to the conference. Admins can add new reviewers, edit existing reviewer details, or remove reviewers as needed, ensuring that reviewer information is accurately maintained.

- **Manage Paper**: Allows admins to manage papers submitted for the conference by adding new papers, updating paper details, assigning papers to reviewers, or removing papers from the system. This feature ensures that all submitted papers are properly managed for an efficient review process.

- **Manage Attendee**: Enables admins to manage attendee information by adding new attendees, updating attendee details, or removing attendees from the system. This feature ensures that attendee information is accurately maintained and that attendees can be easily registered for the conference.

4.1.2 Author Implementation

- **Author Registration**: Authors can register for an account by providing their name, email, affiliation, and creating a password. The registration form ensures data accuracy and prevents duplicate registrations.

- **Author Login**: Registered authors can securely log in to their accounts using their credentials. Upon successful authentication, authors are redirected to their dashboard.

- **Submit Paper**: Authors can submit papers to the conference through a submission form. The form includes fields for the paper title, abstract, keywords, and allows authors to upload their paper files.

- **Track Paper Status**: Authors can track the status of their submitted papers through a dedicated dashboard. The dashboard displays the submission date, review status, and any updates regarding the acceptance or rejection of the paper.

- **View Conference Updates**: Authors have access to conference updates, including important dates, keynote speakers, and program schedules. This ensures that authors are well-informed about the latest conference information and can plan accordingly.

4.1.3 Reviewer Implementation

- **Reviewer Registration**: Reviewers can register for an account by provid-

ing their name, email, affiliation, and creating a password. The registration process ensures that only qualified reviewers are registered in the system.

- **Reviewer Login**: Registered reviewers can securely log in to their accounts using their credentials. Upon successful authentication, reviewers are redirected to their dashboard.

- **Review Paper**: Reviewers can access papers assigned to them for review through their dashboard. They can read the papers, evaluate them based on predefined criteria, and provide detailed feedback.

- **Update Review Status**: After reviewing a paper, reviewers can update the review status to indicate whether the paper has been accepted, rejected, or requires revisions. Reviewers can also provide comments and suggestions for the authors.

4.1.4 Attendee Implementation

- **Attendee Registration**: Attendees can register for an account by providing their name, email, and creating a password. The registration process enables attendees to access conference updates and information.

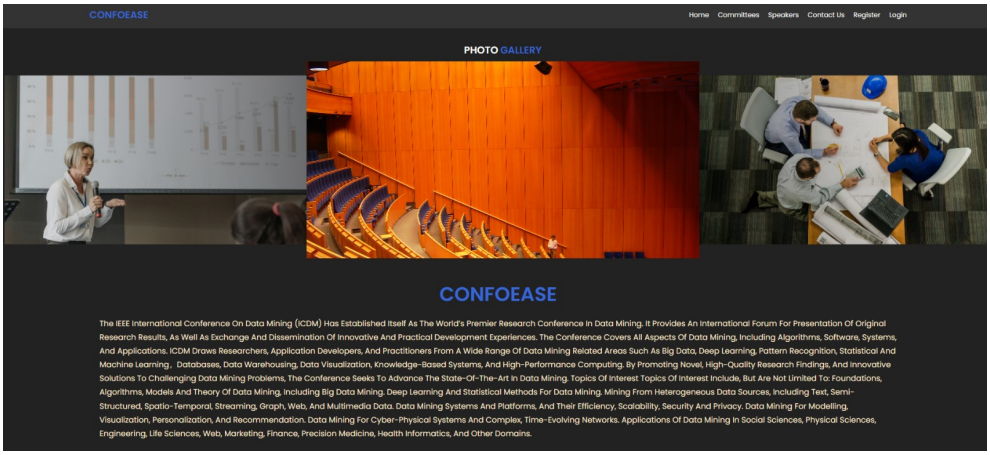
- **Attendee Login**: Registered attendees can securely log in to their accounts using their credentials. Upon successful authentication, attendees are redirected to their dashboard or conference page.

- **View Conference Updates**: Attendees have access to conference updates, including important dates, keynote speakers, program schedules, and other relevant information. This ensures that attendees are well-informed about the conference and can plan their participation accordingly.

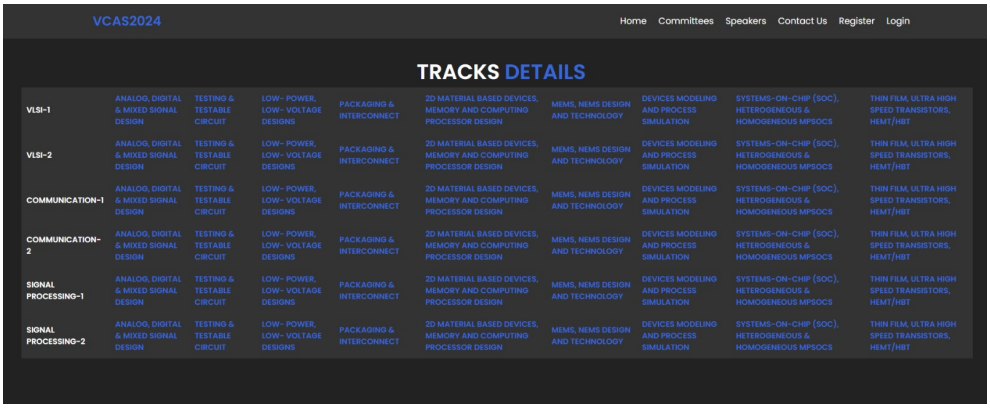
CHAPTER 5

SCREENSHOTS

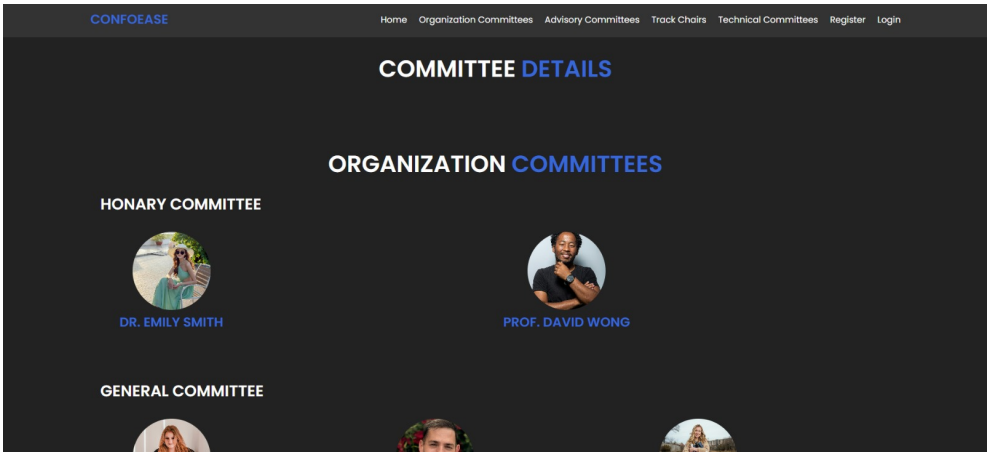
5.1 Home Page



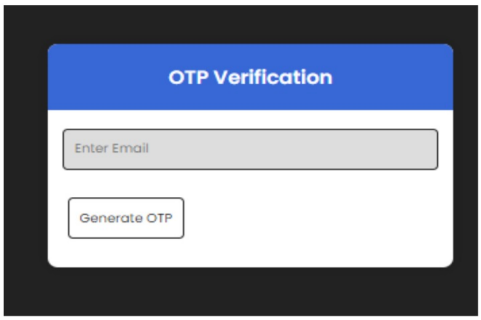
5.1.1 Track Details

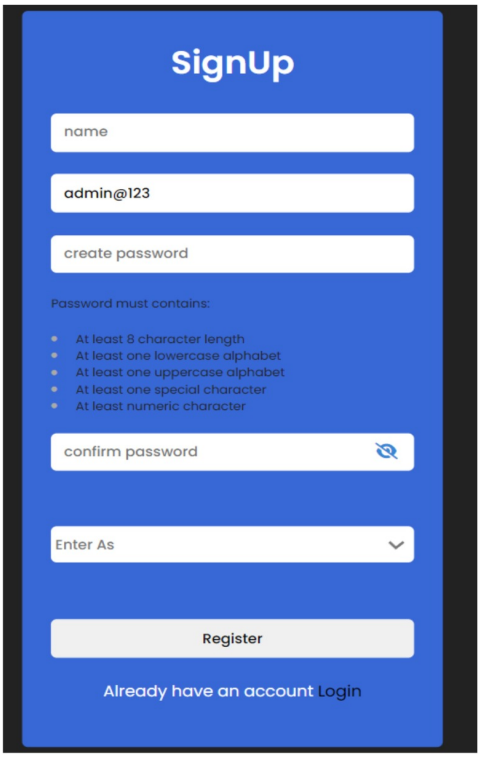


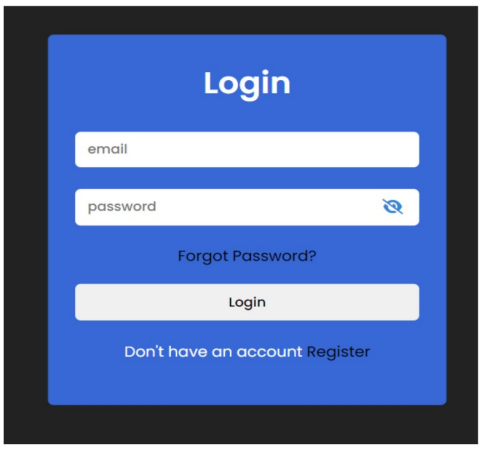
5.1.2 Organizing Committee



5.1.3 Login & Signup Page

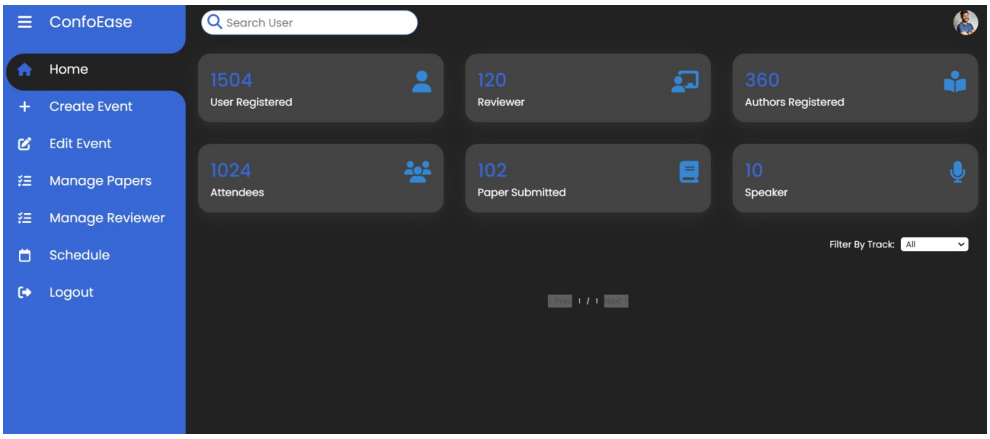




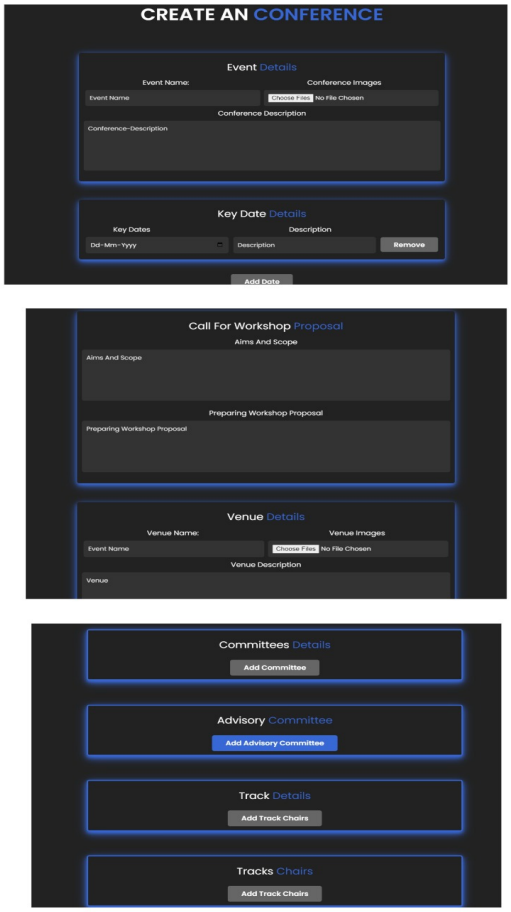


5.2 Admin

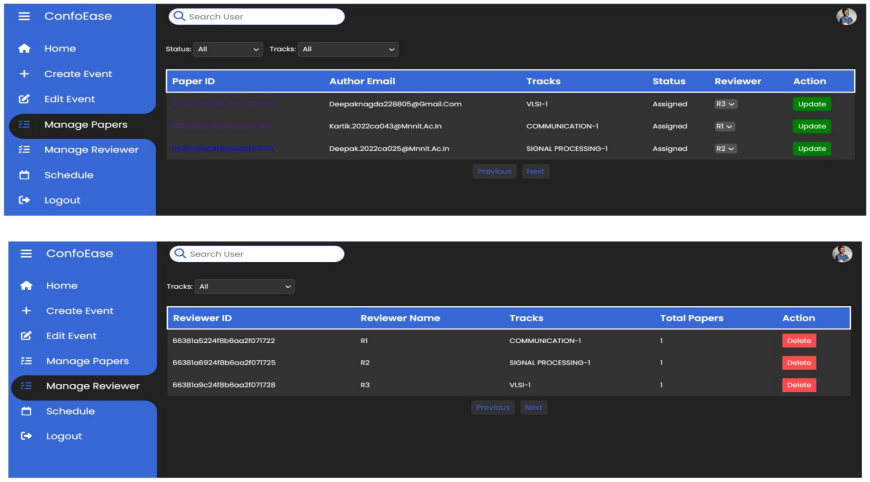
5.2.1 Admin Profile Page



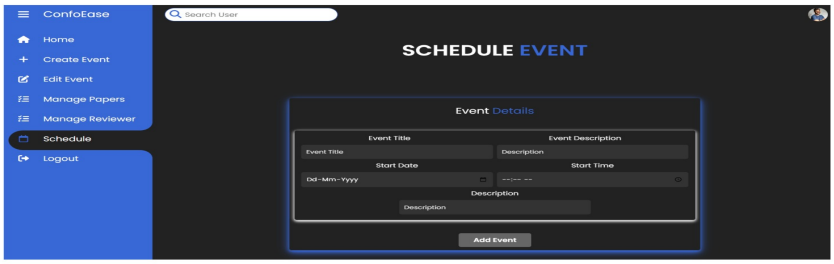
5.2.2 Create Event Form

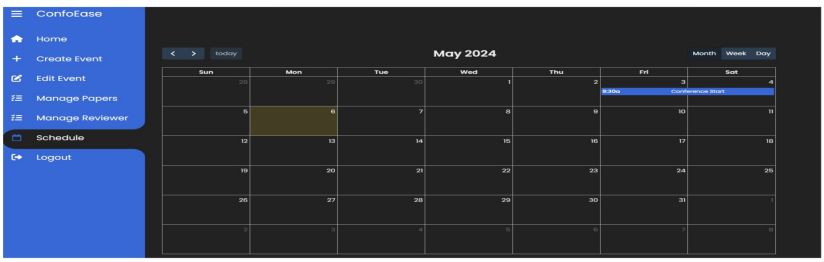


5.2.3 Manage Reviewers and Papers



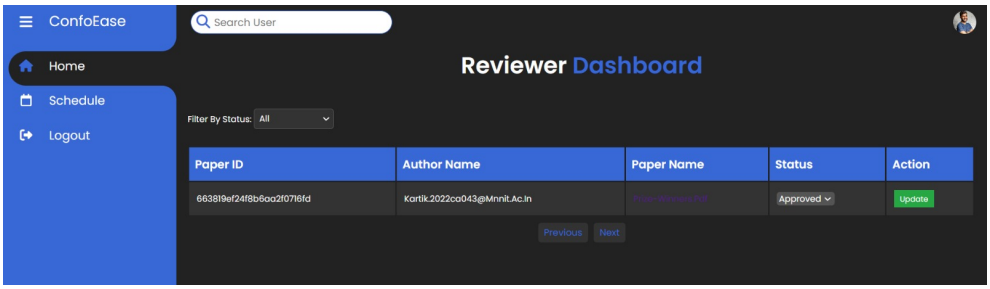
5.2.4 Schedule Events





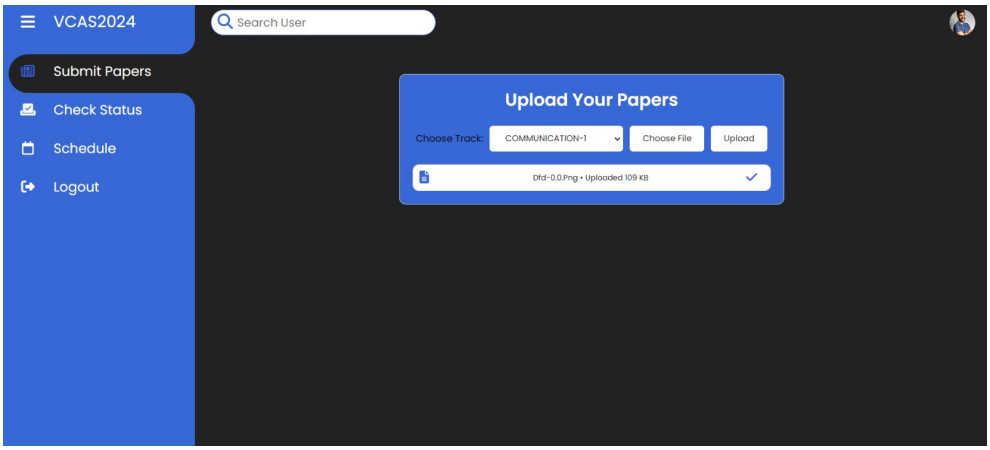
5.3 Reviewer

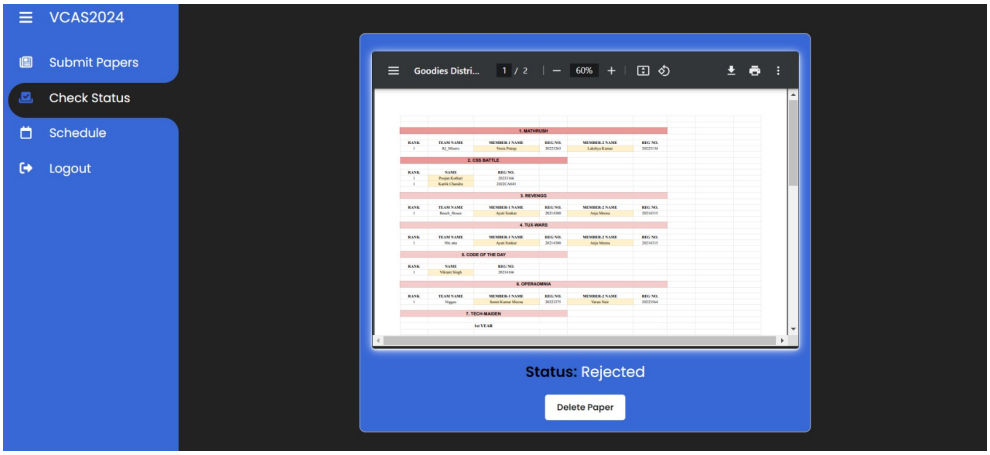
5.3.1 Reviewer's Dashboard



5.4 Author

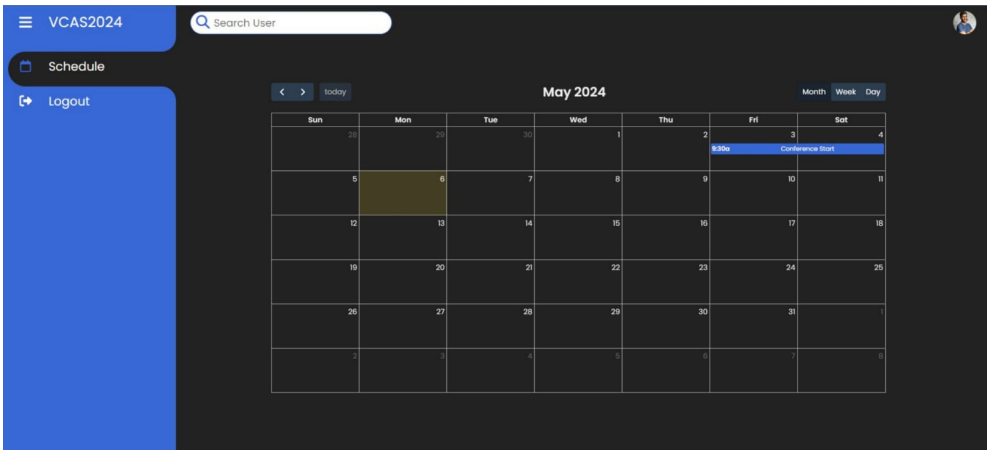
5.4.1 Author's Dashboard





5.5 Attendee

5.5.1 Attendee's Dashboard



CHAPTER 6

CONCLUSION

6.1 Conclusion

Our project, the template-based Conference Management System (CMS), represents a significant advancement in simplifying the organization of multiple conferences. This innovative system offers a pre-designed, customizable website template that significantly reduces the time and effort required to create and host conference websites. The streamlined website creation process not only saves valuable resources but also ensures consistency in design and functionality across all conference websites.

Through this project, we have demonstrated the effectiveness of the template-based CMS in enhancing the overall conference management experience. Overall, the template-based CMS stands as a testament to our commitment to innovation and excellence in conference management.

6.2 Limitations

- **Customization Constraints:** The template's fixed design may restrict extensive customization, limiting its adaptability to diverse organizational needs.
- **Integration Challenges:** Compatibility issues may arise when integrating the CMS with other systems, requiring additional effort to ensure seamless functionality.
- **Scalability Concerns:** Managing a large number of conferences concurrently may strain the CMS's capacity, potentially causing performance is-

sues.

- **Support and Maintenance:** Ongoing technical support and maintenance are essential for optimal CMS performance, which may be challenging if support is limited.

6.3 Future Scope

- **Advanced Features:** Integrate advanced features like automated scheduling, interactive maps, secure payment gateways, and robust communication tools to enrich the user experience and provide added value.

- **Artificial Intelligence (AI) Integration:** Explore AI integration to enhance functionalities, such as implementing chatbots for attendee assistance and employing content recommendation engines.

- **Community Engagement Features:** Introduce tools to encourage networking and collaboration among attendees, such as interactive discussion forums.

- **Virtual Meetings:** Implement features for hosting online meetings and virtual conferences, enabling attendees to participate remotely and improving overall accessibility.

References

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