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College Forums with Alumni Based on Content Filtering

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Abstract: *College Forums is online discussion group. College Forums provide a common area for students, teachers, alumni to come together and discuss unlimited topics, including social activities and educational ideas Allowed Participants can create new threads under different categories and post them on timeline, the other registered users and admin allowed to comment, like or dislike that post. Admin have authority to accept or block the users, most likes post can be added in favorite list etc. Users can view their personal details and they have access to change their password. The main feature filtering abusive words added in comment part. If users make bad comment on other users post then that comment can be blocked by admin and not viewable on timeline. Users can sort post on timeline according to most likes or recently updated options. This System helps for managing all thread/post, replies and like from users with proper well- structured flow.*

Keywords: college Forum, Discussion, web application, alumni, thread, portal

I. INTRODUCTION

College Forums is online discussion group. College Forums provide a common area for students, teachers, alumni to come together and discuss unlimited topics, including social activities and educational ideas Allowed Participants can create new threads under different categories and post them on timeline, the other registered users and admin allowed to comment, like or dislike that post. Admin have authority to accept or block the users, most likes post can be added in favorite list etc. Users can view their personal details and they have access to change their password. The main feature filtering abusive words added in comment part. If users make bad comment on other users post then that comment can be blocked by admin and not viewable on timeline. Users can sort post on timeline according to most likes or recently updated options. This System helps for managing all thread/post, replies and like from users with proper well-structured flow.

II. OBJECTIVE & SCOPE OF PROPOSED SYSTEM

1. The objective of this research is to develop a web-based discussion forum with alumni integration, aimed at facilitating communication and knowledge sharing among current college students and alumni. With the increasing importance of alumni networks in career development and academic support, there is a growing need for effective platforms to connect students and alumni.
2. Our proposed system involves the design and implementation of a feature-rich web application that enables students to seek guidance, advice, and mentorship from alumni, while also providing alumni with opportunities to contribute to the academic and professional growth of current students. By leveraging modern web technologies, we aim to create an intuitive and user-friendly platform that fosters meaningful interactions and collaborations
3. The ultimate goal is to bridge the gap between current students and alumni, facilitating alumni-student interaction and fostering a sense of community within the college ecosystem. By providing a centralized platform for communication and knowledge exchange, we aim to enhance the overall educational experience and support the career development of students.

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4. We will focus on integrating content filtering mechanisms into the system to ensure that the information shared on the forum is appropriate, respectful, and aligns with the values and guidelines of the college or university. This will involve implementing features such as comment moderation, user reporting, and automated content filtering algorithms.
5. We will develop user management functionalities to allow students, alumni, and faculty members to register, login, and manage their profiles. Additionally, we will implement forums and discussion boards where users can participate in academic, extracurricular, and alumni-related discussions.
6. Our system will include robust search functionality to help users find specific topics or conversations of interest. We will also provide feedback and improvement mechanisms to allow users to provide suggestions for continuous enhancement of the platform.
7. We will collect data on user engagement, content preferences, and interaction patterns to analyze the effectiveness of the platform and identify areas for improvement. By continuously iterating and refining the system based on user feedback, we aim to create a reliable and scalable solution for fostering alumni-student interaction and enhancing the overall college experience.
8. The proposed system will be developed using modern web development technologies such as HTML, CSS, JavaScript, PHP, and MySQL. We will adhere to best practices in software engineering and user experience design to ensure the reliability, security, and scalability of the platform.

III. FEATURES OF PROJECT

1. User behavior patterns
2. Content filtering
3. Thread management
4. User management
5. Interaction features
6. Search functionality
7. Privacy and security
8. User-friendly interface

IV. LITERATURE REVIEW

1. The project titled "College Forums with Alumni Based on Content Filtering" aims to bridge the gap between current college students and alumni through an online discussion platform. This web application facilitates communication, knowledge sharing, and mentorship opportunities between students and alumni. It emphasizes career development discussions, job opportunities, and academic guidance. The project does not include a chat system to maintain focus on knowledge sharing. The primary objective is to foster a supportive community for academic and career growth [1].
2. College Forums provide a platform for students, teachers, and alumni to engage in discussions on various topics, including academic and social activities. The system implements content filtering mechanisms to ensure that the shared information aligns with college guidelines. It emphasizes knowledge transfer from alumni to students, networking opportunities, and user privacy and security. The user-friendly interface and search functionality enhance user experience and facilitate continuous improvement through feedback [2].
3. The project enhances student-alumni interaction by facilitating communication and knowledge sharing. Content filtering ensures the appropriateness of shared information. It aims to transfer valuable knowledge and experiences from alumni to students, fostering academic and career growth. Networking opportunities provided by the platform may lead to internship opportunities, job placements, or collaborative projects. User privacy and security are prioritized, and the interface is designed to be intuitive and user-friendly [3].
4. Existing online discussion forums lack privacy, security, and user-friendliness, leading to coordination challenges and low accuracy. The proposed College Forums project addresses these shortcomings by providing a structured platform for discussions and knowledge sharing. By implementing content filtering, the

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project ensures that discussions remain respectful and aligned with college values. The system aims to enhance user experience and engagement while maintaining user privacy and data security [4].

5. College Forums with Alumni Based on Content Filtering is designed to address the limitations of existing online discussion forums. By fostering student-alumni interaction and knowledge sharing, the project aims to create a supportive community for academic and career development. The platform's user-friendly interface, privacy measures, and content filtering mechanisms ensure a positive user experience while promoting respectful and meaningful discussions [5].
6. Discussion forums play a crucial role in facilitating online communication and knowledge sharing among users. However, existing forums often lack privacy, security, and user-friendliness, leading to coordination challenges and low engagement. The proposed College Forums project aims to address these limitations by providing a structured platform for discussions, content filtering, and user management. By prioritizing user privacy and security, the project creates a conducive environment for academic and career-related discussions[6].
7. The project introduces a web-based discussion platform tailored for college students and alumni. It facilitates communication, knowledge sharing, and mentorship opportunities while ensuring user privacy and data security. By implementing content filtering mechanisms, the platform promotes respectful and meaningful discussions. The user-friendly interface and search functionality enhance user experience, making it easier to navigate and participate in discussions [7].
8. Online discussion forums have become integral in facilitating communication and knowledge sharing among users. However, existing forums often lack privacy, security, and user-friendliness, leading to coordination challenges and low engagement. The proposed College Forums project addresses these limitations by providing a structured platform for discussions, content filtering, and user management. By prioritizing user privacy and security, the project aims to create a conducive environment for academic and career-related discussions [8].
9. The project offers a comprehensive solution for fostering student-alumni interaction and knowledge sharing. By implementing content filtering and user-friendly features, the platform aims to create a supportive community for academic and career development. The system's architecture ensures user privacy and data security while promoting meaningful discussions. Continuous feedback and improvement mechanisms contribute to the platform's evolution and effectiveness [9].
10. College Forums with Alumni Based on Content Filtering is designed to provide a robust platform for online discussions among students, teachers, and alumni. By prioritizing user privacy and security and implementing content filtering mechanisms, the project aims to create a safe and respectful environment for knowledge sharing. The platform's intuitive interface and search functionality enhance user experience, fostering engagement and collaboration [10].
11. The project represents a significant advancement in online discussion forums tailored for college communities. By providing a structured platform for discussions and knowledge sharing, the project aims to enhance student-alumni interaction and support academic and career growth. The system's user-friendly interface, privacy measures, and content filtering mechanisms ensure a positive user experience while promoting respectful and meaningful discussions [11].

V. REPRESENTATION OF THE METHODOLOGY

The methodology for developing the College Forum platform entails a systematic approach to ensure its successful creation and implementation. It begins with gathering comprehensive data and requirements, encompassing the needs of users such as students, alumni, and faculty, as well as identifying essential features for effective communication and knowledge sharing. Following this, the system architecture and design are meticulously planned, emphasizing user experience and navigational ease. Development proceeds with coding the frontend and backend components using a variety of technologies, prioritizing feature implementation and cross-device compatibility. Rigorous testing is then conducted to identify and rectify any bugs or issues, ensuring the platform meets desired quality standards. Once testing is complete, the platform is deployed to a production environment, accompanied by user training to familiarize them

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with its functionalities. Ongoing maintenance and support are integral to the process, guaranteeing the platform's reliability, security, and responsiveness to user feedback. Through this methodical approach, the College Forum platform can serve as an effective tool for facilitating communication, knowledge sharing, and collaboration within the college community.

VI. PROPOSED SYSTEM ARCITECTURE

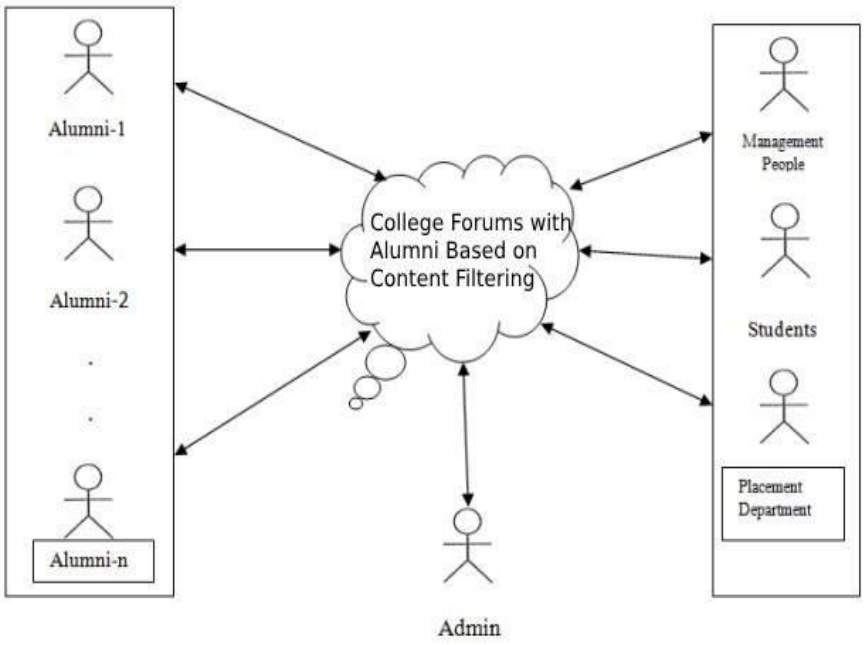

Figure: Proposed System Architecture

VII. ADVANTAGES

- Enhanced Interaction: College forums foster increased interaction and engagement among students, alumni, and faculty, providing a platform for sharing knowledge, insights, and experiences related to academics, career guidance, and extracurricular activities.
- Alumni Engagement: By connecting current students with alumni, the forum facilitates valuable mentorship opportunities, career guidance, and industry insights, thereby enhancing alumni engagement and support for students' academic and professional endeavors.
- Academic Support: Students can seek academic support, clarify doubts, and share study materials through the forum, leveraging the collective knowledge and expertise of peers and alumni to enhance their learning experience.
- Networking Opportunities: The forum serves as a networking platform, enabling students to build connections with alumni and industry professionals, potentially leading to internship opportunities, job placements, or collaborative projects.
- Resource Sharing: Through the forum, users can share resources, such as research papers, study materials, and career-related articles, promoting collaborative learning and knowledge exchange among the college community.
- Community Building: College forums facilitate the development of a cohesive and supportive community where students, alumni, and faculty can collaborate, communicate, and contribute to each other's academic and professional growth.

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- Holistic Development: By providing a space for discussions on diverse topics ranging from academics to social activities, the forum promotes holistic development by fostering intellectual curiosity, critical thinking, and social interaction among participants.

VIII. APPLICATION AREAS

- Student Engagement: College forums can enhance student engagement by providing a platform for academic discussions, extracurricular activities, and career guidance. Students can interact with peers and alumni to seek advice, share knowledge, and collaborate on projects, fostering a sense of community within the college.
- Alumni Networking: College forums facilitate networking opportunities between current students and alumni, allowing for mentorship, internship placements, and job referrals. Alumni can share industry insights, career opportunities, and professional experiences, helping students make informed decisions about their future careers.
- Academic Support: College forums serve as a resource hub for academic support, where students can exchange study materials, ask questions, and receive guidance from peers and alumni. This enables collaborative learning and knowledge sharing, enhancing the academic experience for all participants.
- Career Development: College forums play a crucial role in career development by providing access to job postings, internships, and career advice from alumni and industry professionals. Students can gain valuable insights into various career paths, industry trends, and job requirements, empowering them to make informed career decisions.
- Community Building: College forums contribute to community building by fostering connections among students, faculty, alumni, and staff. Through meaningful interactions and shared experiences, participants develop a sense of belonging and pride in their college community, strengthening relationships and collaboration opportunities
- Research Collaboration: College forums support research collaboration by enabling students and faculty to share ideas, collaborate on projects, and disseminate research findings. Participants can discuss research methodologies, seek feedback on their work, and identify potential collaborators, enhancing the research capabilities and productivity of the college community.

IX. HARDWARE REQUIREMENTS

1. CPU Quad Core (not counting hyper-threading) 2.4Ghz, Intel VT or AMDV (Intel i3 or better)
2. Memory 4 GB
3. The ability to install more memory is desirable. Disk 512 GB SSD or better
4. Graphics Accelerated, Gaming Support Nvidia is preferred over AMD 1920 by 1080 resolution is recommended (at least on an external port) At least 1280 by 1024 resolution
5. HDMI output recommended (perhaps with an adapter)
6. Mouse An external mouse (USB or Bluetooth) is desirable.
7. USB USB 3.0 desirable for an external disk Other USB ports may be needed for: mouse, printer, mic-in, and headphones-out, depending on how these are connected.
8. External monitor A 23" or larger HDMI monitor is recommended, with reasonable resolution.
9. Laptop or Desktop Windows 11 or macOS 12.4 or above. Linux is also acceptable if a mainstream distribution (e.g. Ubuntu).

X. SOFTWARE REQUIREMENTS

- Operating System: Windows XP and later versions
- Front End: HTML,CSS
- Programming Language: PHP
- Dataset: MySQL

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- Additional Technologies: JavaScript and Bootstrap for enhancing the user experience with dynamic page elements, responsive design, and interactive features.

XI. TEST DATA REQUIREMENTS

Unit Testing:

Unit testing in the context of our college forum project involves verifying the functionality of individual modules such as campaign, lead, contact, etc. Each submodule undergoes independent testing to ensure its proper operation. Input field validations are rigorously examined to detect any errors or inconsistencies within the module. By utilizing detailed design descriptions, we identify and test important control paths to ensure errors are identified within the module's boundaries.

Integration Testing:

Following unit testing, integration testing is performed to assess how individual units are integrated and function together within our college forum system. This phase ensures that no data is lost across interfaces, one module does not adversely affect another, and functions are executed correctly. Each submodule is thoroughly tested while integrating with others to ensure seamless functionality across the entire system

XII. SYSTEM TESTING FOR THE CURRENT SYSTEM

System testing for the college forum project involves evaluating the entire system after integrating all its main modules. The goal is to ensure that the system functions correctly and meets the desired specifications. Here's an overview of the testing approaches used:

1. Functional Testing: This testing phase focuses on verifying if the system functions according to its requirements. It involves testing features like thread creation, commenting, liking, and user profile management to ensure they work as intended.
2. Performance Testing: Performance testing assesses how well the system performs under different load conditions. It checks if the forum can handle concurrent user interactions, such as posting threads and comments, without significant slowdowns or errors.
3. Security Testing: Security testing evaluates the system's ability to protect user data and prevent unauthorized access. It involves testing authentication mechanisms, data encryption, and access controls to ensure user privacy and security.
4. Compatibility Testing: This testing ensures that the forum functions correctly across different devices and web browsers. It verifies that users can access and use the forum seamlessly regardless of their operating system or browser choice.
5. Usability Testing: Usability testing assesses the user interface and overall user experience of the forum. It checks if navigation is intuitive, features are easy to use, and if the forum meets the needs of its intended users students, teachers, and alumni.
6. Regression Testing: Regression testing ensures that recent code changes or updates have not introduced new bugs or issues into the system. It verifies that existing functionality still works as expected after modifications.
7. Acceptance Testing: Acceptance testing involves validating the system's compliance with user requirements and expectations. It ensures that the forum meets the needs of its stakeholders and performs its intended functions effectively.
8. Recovery Testing: This testing evaluates the system's ability to recover from failures or disasters gracefully. It checks if the forum can maintain data integrity and resume normal operations after unexpected events.
9. Stress Testing: Stress testing examines how the system behaves under extreme load conditions. It assesses its resilience and performance limits by subjecting it to high user traffic or resource demands.
10. Exploratory Testing: Exploratory testing involves exploring the system to uncover any undocumented features or unexpected behavior. It helps identify potential issues that may not have been addressed in other testing phases

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XIII. CONCLUSION

In conclusion, the College Forum project presents a comprehensive platform for fostering communication and collaboration within educational institutions. By providing a space for students, teachers, and alumni to engage in discussions, share knowledge, and seek guidance, the forum enhances the academic and social experience of its users. Through the implementation of features such as content filtering, user-friendly interfaces, and robust security measures, the forum ensures a positive and productive environment for interaction. As the project undergoes system testing and evaluation, it is poised to become an invaluable resource for the college community, facilitating learning, networking, and personal growth.

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