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Web-Controlled Centralized Digital Notice Board for Smart Institutions

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Abstract

A web-based online notice board with event management is a digital platform that enables users to create, post, and manage notices and events in real time. The platform allows users to publish information about events, such as conferences, workshops, and social gatherings, on the notice board. Users can also manage the events by setting up schedules, booking venues, and sending out invitations to attendees. Users may quickly create and manage their events on the site because of its user-friendly design. A web-based system is accessible from anywhere, and users can access it on various devices, including desktops, laptops, tablets, and smartphones. Overall, the web-based online notice board with event management is an efficient tool for organizing events and disseminating information to a broad audience. The platform enables real-time updates, ensuring that users have access to the most current information. Event organizers can make changes to the event schedule, venue, or other details, and attendees will receive automatic notifications of any updates.

INTRODUCTION

A Web-Based Centralized Notice Board Platform is a digital communication system designed to provide a centralized location for sharing announcements, news, and other important information with a community or organization. It allows users to create, post, and manage various types of content, such as text, images, videos, and documents, and share them with specific groups or individuals. All community or organization members of the community or organization may easily access and use this platform because it is usable from any device with an internet connection. Additionally, it offers variousfeatures like notification alerts, filtering options, and search functionality to ensure that users can easily find the information they need. A Web-Based Centralized Notice Board Platform provides a modern, efficient, and effective way to share information, enhance communication, and engage with a targeted audience.

Convenient and Easy to Use

This platform is comfortable and simple to use for all members of the community or organization since it can be accessed from any device with an internet connection. Users may keep current on news and announcements by accessing the platform from their desktop PCs, laptops, cellphones, or tablets. The platform has a number of benefits over conventional event management and communication techniques, including real-time updates and notifications, time and resource savings, and search capabilities.

Event Management

This platform is especially useful for organizations and communities that need to manage events and share information with attendees and stakeholders. It can be used for a variety of purposes, such as promoting events, sharing updates and announcements, and communicating with attendees or event staff. Additionally, it allows event organizers to manage event registrations, track attendance, and send reminders and notifications.

This platform offers several advantages over traditional methods of event management and communication. It allows event organizers to streamline the event planning process and save time and resources.

LITERATURE REVIEW

"Designing a Digital Notice Board for Education: A Study of Students' Preferences and Perception," by AgnieszkaPaluszek and Łukasz Tomczyk, published in Computers & Education (2021). This article presents a study of students' preferences and perceptions regarding a web-based centralized notice board designed for use in education.

"A Web-Based Notice Board for Collaborative Learning,"by Andriy Kovalchuk and Anna Pylypchuk, published in International Journal of Emerging Technologies in Learning (2021). This article describes the design and implementation of a web-based notice board for collaborative learning.

"Towards a More Inclusive Notice Board: A Case Study of Developing a Centralized Online Notice Board for a University," by Ly Minh Tu, Nguyen Thi Thu Huong, and Tran Thi Ngoc Mai, published in the Journal of Educational Technology Development and Exchange (2020). This article describes the development of a centralized online notice board for a university, with a focus on making it more inclusive for all users.

"Designing and Implementing a Web-Based Notice Boardfor Disaster Management," by Phattaranant Boonkham and Chalermek Intanagonwiwat, published in the Journal of Information Technology Case and Application Research (2020). The design and execution of a web-based notice board for disaster management are presented in this paper, with an emphasis on its efficacy and usability.

"Implementation of a Web-Based Notice Board for a Hospital Emergency Department," by Ka-Ling Cheung, Yu- Cheong Chiu, and Kwan-Hoong Ng, published in the Journal of Medical Systems (2020). This article describes the implementation of a web-based notice board for a hospital emergency department, with a focus on its impact on communication and patient care.

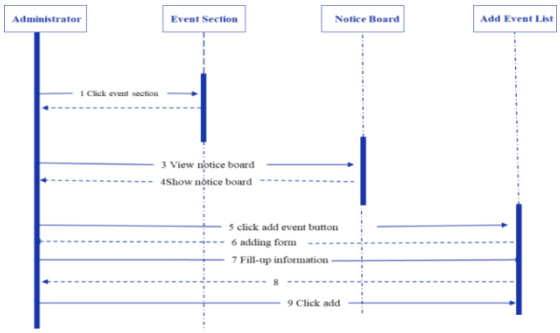
"Design and Implementation of a Web-Based Notice Board System for a College," by Rajitha Kanchanapalli and Bheemanna Khandre, published in the Journal of Engineering Education Transformations (2020). With an emphasis on usability and efficacy, this article describes the design and deployment of a web-based notice board system for a college. "Web-Based Notice Board System for Campus Management," by G. Gokul and P. Manoj Kumar, published in the “International Journal of Engineering Research and Technology” (2019). This article describes the design and implementation of a web-based notice board system for campus management, with a focus on its features and benefits. "Development of a Web-Based Notice Board for a University," by Yonatan Bisk and Hadas Lewy, published in the Journal of Information Technology Education: Research (2019). This article presents the development of a web-based notice board for a university, with a focus on its usability and effectiveness. "Web-Based Centralized Notice Board System for Educational Institutions," by “International Journal of Engineering and Advanced Technology” (2018). This article describes the design and implementation of a web-based centralized notice board system for educational institutions, with a focus on its features and benefits..

THEORY

The Manual Wooden System

The manual wooden boards are located at key locations in various departments residing within the university. The notice boards in these departments contain vague paper based information that needs to be changed and replaced frequently because if not, this creates abundance and redundant information.The wooden notice board is basically a wooden object, used as a source of information dissemination within the vicinity. This object serves to display information regarding competitions, seminars, test results, test announcements or any other important announcement that needs to be placed publically.This method creates problems and is less efficient because of lack of information processing such as maintaining notices, timely updates and removals, addition of paper. Following figure 1 show a notice board located in a university department.

Proposed System



An online e-notice board website with event management is a digital platform that allows users to post and view notices or announcements online, with a specific focus on events. The website serves as a centralized hub for event-related information, updates, and news related to a specific community or organization.

Users may create, administer, and advertise events online thanks to the website's event management feature. This covers functions like ticketing, scheduling, and reminders for events. Users may access all pertinent data and resources in one location by integrating event management with the e-notice board website, expediting the event preparation procedure.

The website serves as a centralized hub for event- related information, updates, and news related to a specific community or organization. The event management component of the website allows users to create, manage, and promote events online, streamlining the event planning process.

Features of the event management component can include event registration, ticketing, scheduling, and

Figure 2. E-Notice Board Diagram

reminders. The website should be designed with considerations for usability, functionality, and security, including features such as search functionality and notifications.An online e-notice board website with event management can improve communication and information-sharing within a community or organization, while also providing a streamlined platform for event planning and promotion.The design and implementation of an online e-notice board website with event management requires careful consideration of factors such as usability, functionality, and security.

The website should include features like search functionality and alerts, be simple to browse, and have a pleasing aesthetic appearance. For the purpose of safeguarding user data and preventing unauthorized access, it should also be secure.In calculating the success of the website and its event management component, metrics such as user engagement, event attendance, and revenue generated can be tracked and analyzed. This data can be used to make improvements to the website and its features, as well as to inform future event planning.

EXPERIMENTAL METHOD/PROCEDURE/DESIGN

The procedure for creating and testing a web-based online notice board with event management involves defining goals and objectives, determining user requirements, designing and developing the website, testing and validation, and ongoing deployment and maintenance. The proposed system for a web-based online notice board with event management would provide a comprehensive platform for managing events and disseminating information to a specific audience. The system would be user-friendly, secure, and feature-rich, providing a valuable tool for organizations and institutions to communicate with their stakeholders.

Analysis of Proposed system

User authentication and access control: Users must register and log in to access the system's features, with access control measures implemented to ensure that users can only view and modify content thatthey are authorized to access. Notice board: The system includes a notice board where users can view and search for notices and announcements. Notices can be categorized by topic or department to make it easier for users to find relevant information. Notice creation and management: Users can create and post new notices, with details such as title, description, and category. They can also edit or delete their own notices as needed. Event creation and management: Users can create and manage events, with details such as date, time, location, and description. Users can register for events and receive notifications and reminders.

Website administrators can track metrics such as user engagement, event attendance, and revenue generated. Reports can be generated to provide insights into website performance and user behavior. Security measures are implemented to protect user data and ensure website integrity.

This includes measures such as encryption, firewalls, and regular security audits.

Analysis of High-level Representation

- User authentication and authorization:
- Define user roles and permissions
- Implement user registration and login functionality Notice board:
- Create functionality for posting notices and announcements.
- Implement categorization and tagging for notices.
- Develop search, filter, and sorting functionality for notices.

Event management:

- Implement functionality for creating events with details such as date, time, location, and description
- Develop categorization and tagging for events
- Implement user registration and notification functionality for events

Security:

- Implement encryption and user data protection measures
- Conduct regular security audits and updates to maintain website integrity
-

Use Case Diagram

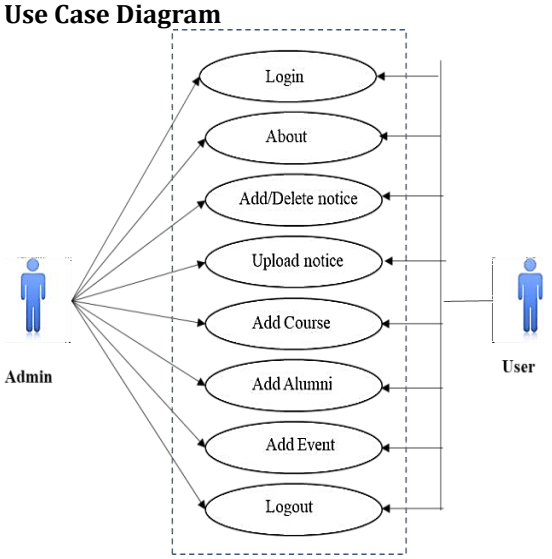


Figure 3. Use case Diagram

A visual picture of the interactions between actors and the system is provided by the use case diagram for a web-based online notice board with an event management system.
On the left side of the use case diagram would be the actors (Administrator and User), and on the right side would be a collection of use cases. With lines depicting their interactions, the use cases would be linked to the actors. For instance, the Create Notice and View Notice use cases would be linked to both the User and Administrator actors, while the Register/Login use case would be tied to the User actor.

Activity Flow Diagram for Admin

The activity diagram for the admin site of a web-based online notice board with event management system would show the flow of activities that the administrator would perform while managing the website's content. The activity diagram would show each activity as a box, with lines connecting the boxes to show the flow of activities. The arrows would indicate the direction of the flow, and the boxes would include labels to describe the activity being performed.

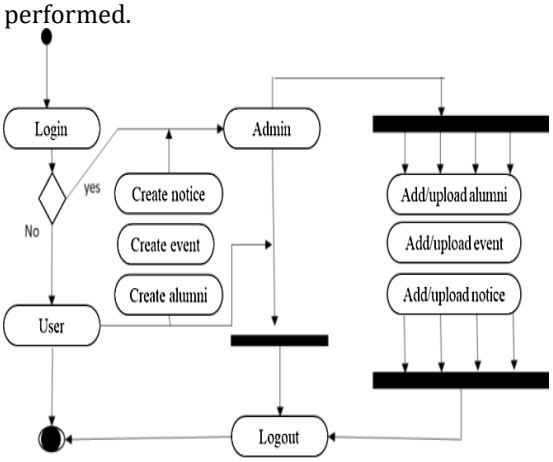


Figure 4. Activity Flow Diagram for admin

Once logged in, the administrator is presented with a dashboard displaying an overview of the website's performance and user engagement.

RESULTS AND DISCUSSION

The main function of the proposed system is to develop a Digital notice board that display message sent from the user through internet and to design a simple, user-friendly system, which can receive and display notice in a particular manner with respect to date and time which will help the user to easily keep the track of notice board every day and each time he uses the system. System consists of two sections called as sender and receiver. Sender is responsible for sending valuable information's through the wireless network. In order to access Digital notice board, the sender must enter into the corresponding web address. For preventing unauthorized access web address, we provide security authentications like username and password. If the username and password entered are invalid then the user can't access the digital notice board. When the user enter correct password and user name web address will be opened and get space for the information

transmission. User can access this web address either using personal computer or mobile phone.

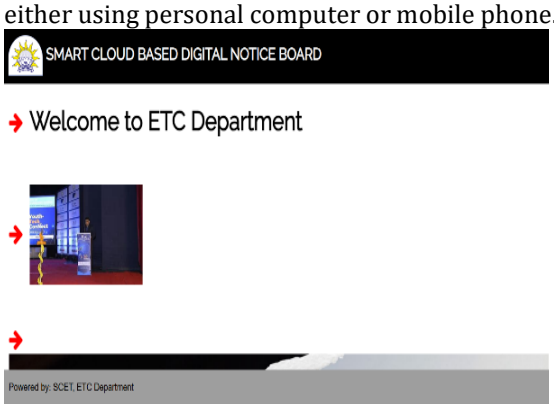


Fig 5: User Digital Notice Board UI

By using this application sender can directly enter into the web address. These messages including text file, image file will send to the cloud. In the simplest terms, cloud means storing and accessing data and programs over the Internet instead of our computer's hard drive. The web address for collecting data from the cloud is already specified through program written in the processor. Upon receiving messages, it will display on the monitor. In addition to this we provide Deleting and modification option at the web link. If sender wants to delete some image or notice file, he can simply delete it by clicking the *corresponding link in the web page.*

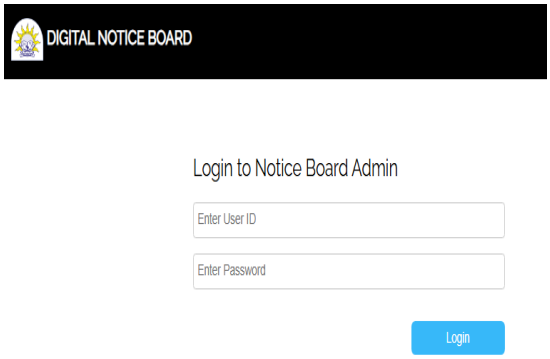


Fig 6: Admin Login Screen

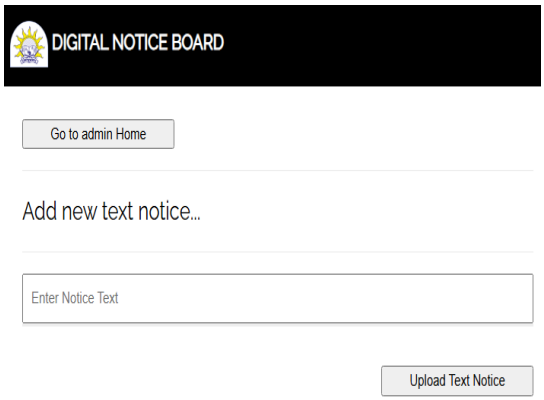


Fig 7: Screen For Admin to

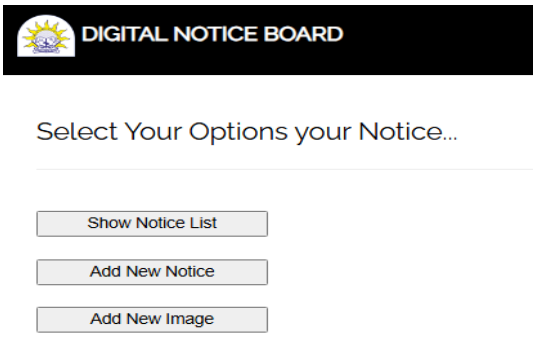


Fig 8: Screen For Admin to Add New Text Notice

Select Notice Type

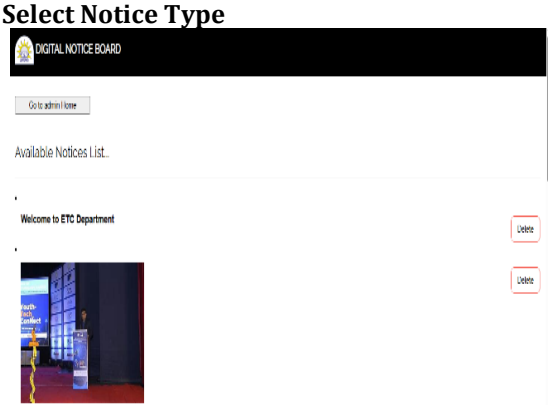


Fig 9: Screen For Admin to Check Live Uploaded Notice Status

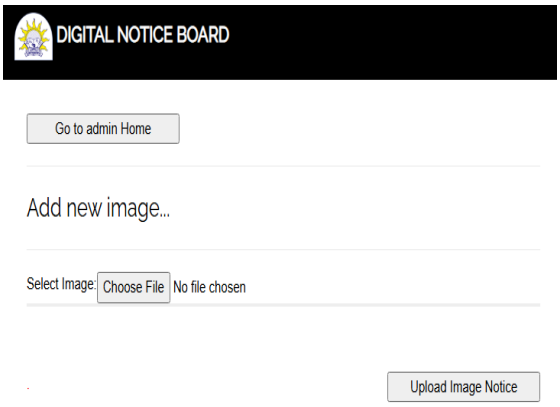


Fig 10: Screen For Admin to Add New Image Notice

With high-definition displays, real-time content updates, and seamless integration, you can showcase advertisements, information, alerts, notices, and entertainment with stunning clarity and precision. This system leverages cutting-edge technology to replace traditional paper-based notice boards with interactive and dynamic digital displays. Key features include customizable templates, a cloud-based/in-premise solution, and robust security, ensuring your content is always updated and protected. Enhance your brand visibility, attract more

customers, and improve communication with our versatile and reliable Display solution.

CONCLUSION AND FUTURE SCOPE

The proposed online e-notice board website with event management is a comprehensive solution that helps educational institutions and organizations to manage their notices and events efficiently. The website provides an easy- to-use interface for both administrators and users, which allows them to quickly and easily navigate through the website's various sections, including the notice board, course section, alumni blog, and event section. The website is designed to be user-friendly and accessible, making it an excellent platform for educational institutions and organizations to communicate important information to their students, faculty, staff, and other stakeholders. The online notice board section of the website is the main feature, and it is calendar-based. The calendar makes it easy for users to find notices and events based on their date of occurrence. The users can view the notices and events for a particular day, week, or month. The notices can be categorized based on their type, such as general notices, academic notices, examination notices, etc.

The notices can also be filtered based on their department, course, or program. The online notice board section ensures that all important notices are available to users at all times. The course section of the website provides details of different courses available in the educational institution or organization. The courses can be categorized based on their level, such as undergraduate, graduate, or postgraduate. The course section contains information on the course curriculum, faculty, and admission requirements. The users can also view the course schedules, class timings, and other important details related to the courses. The event section of the website provides information on various events organized by the educational institution or organization, such as seminars, workshops, conferences, cultural events, sports events, etc. The event section provides details on the date, time, venue, and other important details related to the event. The users can also register for the events through the website. The alumni blog section of the website provides a platform for the alumni to share their experiences and achievements with the current students, faculty, staff, and other stakeholders. The alumni blog section is a great way to keep alumni engaged and connected with the educational institution or organization.

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