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LOST AND FOUND WEBSITE FOR COLLEGE CAMPUS

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ABSTRACT:

Technological advancements have continually eased human endeavors, allowing us to focus on more complex tasks. In line with this, we have created" LostAndFound" a comprehensive web-based platform specifically designed for college campuses. This application, meticulously built using Python and MySQL, significantly aids users in locating misplaced items with greater efficiency. By submitting detailed information about a lost item, users can quickly initiate a search through the website, streamlining the process of reconnecting with their belongings. The development process employed a versatile combination of technologies, including HTML, CSS, JavaScript, jQuery, Python. Django, and MySQL. Django was deliberately selected for its rapid development cycle, robust security features, and exceptional scalability, making it an ideal framework for this project. Additionally, this platform fosters a sense of community within the college environment, encouraging users to assist one another in recovering lost items. It proves especially valuable in academic settings where essential items like books, keys, wallets, and other personal belongings are frequently misplaced.

Keywords- Lost and Found, Web-based Platform College Campus, Django, MySQL

1.INTRODUCTION

In any large community, the loss of personal belongings is a common issue, and college campuses are no exception. Students, faculty, and staff frequently misplace items such as smartphones, chargers, wallets, and other personal belongings. The current process of recovering lost items in most colleges is often inefficient and time-consuming,relying on physical lost and found desks or bulletin boards. These traditional methods are not only cumbersome but also lack a centralized system for tracking lost items, leading to confusion and delays in recovery. Additionally, the absence of a streamlined communication channel between the finder and the owner often results in unclaimed items being left in storage or, in the worst-case scenario, never being returned to their rightful owners.

To address these challenges, we have developed LostAndFound.com," a web-based platform designed to automate and streamline the entire process of reporting and retrieving lost items. Our platform offers a centralized digital solution that enables users to quickly and easily report lost or found items, upload descriptions and images, and communicate with other users in real time. By integrating an intuitive user interface with robust backend functionality, LostAndFound.com not only improves the efficiency of the lost and found process but also enhances the overall experience for users by providing a seamless and transparent method for recovering their belongings. Moreover, the platform leverages modern web technologies to

ensure scalability, security, and ease of access across various devices, making it a versatile solution for colleges and universities of all sizes

In addition to its core functionality, LostAndFound.com includes unique features such as email notifications for item claims, real-time updates, and a user-friendly dashboard for managing lost and found records. These features are designed to reduce the administrative burden on college staff while empowering users to take control of their lost items. Ultimately, our platform aims to foster a more connected and responsible campus community, where the recovery of last belongings is no longer a matter of chance but a streamlined and efficient process

2.LITERATURE SURVEY

In [1], author Ibrahim, E. et al. developed an online web-based lost and found system tailored for educational institutions. The framework emphasizes automation of reporting and retrieval processes. However, usability challenges for first-time users and the need for intuitive interfaces were identified as key drawbacks. Additionally, the system lacked features for multi-language support, which could limit accessibility for a diverse student population. Feedback also indicated that user training might be necessary to ensure successful adoption. In response, the team is working on introducing a tutorial mode within the system to address these issues and make the platform more approachable. Furthermore, they plan to collaborate with IT departments to streamline integration with existing campus systems.

In [2], Awotunde, J. et al. proposed a mobile app designed to facilitate lost and found operations within universities. The system faced challenges such as the difficulty of maintaining centralized databases across decentralized departments, which hindered quick updates and seamless retrieval. Furthermore, the app struggled with ensuring a secure authentication system, leading to potential risks of unauthorized access. Suggestions included implementing biometric authentication to improve system security and user trust. Additionally, enhancing data encryption methods could help address privacy concerns. The authors also noted that scalability could become a concern as the app expands beyond the university setting, especially with increased numbers of users and items being tracked.

In [3], Razi, M. et al. focused on designing an internet-based system to address delayed responses in lost and found reporting. A major drawback noted was user hesitancy to report items due to lingering skepticism from previous manual systems. Another challenge was integrating notifications to alert users promptly, which could lead to delays in real-time updates. The authors suggested incorporating SMS and push notification functionalities for immediate communication. Furthermore, they found that some users failed to follow up after the initial item report, affecting the system's overall success. To mitigate this, the team plans to implement reminder features to encourage follow-up actions.

In [4], researchers Li and Liu presented a geolocation-based system using the Amap API for real-time reporting and locating of lost items. However, the dependency on internet connectivity and lack of advanced search functionalities were highlighted as limitations. The system also struggled with mapping precision in dense urban areas, which reduced its reliability. Enhancements such as integration with 5G and better geofencing algorithms were

recommended for improvement. Additionally, the geolocation-based approach faced challenges with battery usage in mobile devices, especially in continuous tracking scenarios. Future updates aim to address this by implementing energy-efficient algorithms to minimize power consumption while maintaining accuracy. This approach is particularly beneficial in creating search tools for specialized platforms, such as a lost and found website, where the ability to quickly and accurately locate specific items is essential.

In [5], researchers at Appalachian State University introduced AppalLOCATE, a system featuring proximity tracing and inventory management. Challenges included inefficient search performance due to storage indexing limitations and high costs for implementing advanced search options. Moreover, the app's interface lacked sufficient customization options, which affected its appeal to various user groups. Plans for a future version included implementing a modular design for better flexibility and usability. Another limitation was the inability to handle an increasing volume of users and items, resulting in slower response times. The team is now focusing on database optimization and implementing caching techniques to enhance performance under load.

In [6], researchers explored loT-based frameworks for automating the lost and found process. Drawbacks included challenges in real-time item tracking and dynamic adaptability to rapidly changing environments. Additionally, the cost of deploying loT infrastructure was a significant barrier for institutions with limited budgets. Improving affordability through open-source hardware solutions was proposed as a potential solution. Further limitations arose from the complexity of integrating lot devices with legacy systems in many institutions. To address this, the team is focusing on standardizing communication protocols between different loT devices to facilitate smoother integration.

In [7], the BUSCA framework focused on improving tracking systems in environments with lost objects. The major challenge was the reliance on high-quality object detectors, which limited its real-time applicability in environments with frequent detection failures. Another issue was scalability, as the framework struggled to handle large-scale deployments efficiently. Optimization of algorithms for better resource utilization was suggested as a path forward. Additionally, real-time data processing faced latency issues in larger environments, reducing the system's effectiveness. The researchers are working on optimizing the detection algorithms and parallel processing capabilities to enhance scalability.

In [8] Siok Yee Tan's study evaluates the FoundLost application, a system developed to manage lost and found items efficiently at the National University of Malaysia (UKM). The study emphasizes the application's core functionality, which allows users to log in, upload item details, search for lost items, and interact with security questions-features designed to address specific challenges on a university campus. The research highlights that FoundLost meets the growing demand for a streamlined and user-friendly process for managing lost property. However, it also points out areas for improvement based on user feedback. Suggested enhancements include the implementation of pop-up notifications to alert users about updates, the addition of a customer service function for support, and the incorporation of multi-language support to cater to a diverse campus population. The study concludes by stating that a dedicated lost and found system like FoundLost could significantly improve the

management of lost items on university campuses, offering both efficiency and a better overall user experience.

3.PROBLEM STATEMENT

In a college campus environment, students, faculty, and staff often misplace personal belongings like ID cards, books, gadgets, and other essentials. Traditional methods of recovering these items, such as physical notice boards or word of mouth, are often inefficient and unreliable, leading to unclaimed items and inconvenience for the campus community. "Lost and Found" platform specifically for the college campus. The platform should allow users to post about lost or found items, securely connect with each other, and provide a streamlined process for verifying and returning items to their rightful owners.The core problem this platform addresses is the need for an integrated, accessible, and user-friendly solution to purchase plants and related gardening products, while also providing valuable resources for plant care and fostering a sense of community around gardening.

PROPOSED WORK:

This project consists of seven fundamental technologies:

1.HTML

2.CSS

3.JavaScript

4.jQuery

5.Python

6.Django

7.MySQL

This project is divided into two primary components:

Front-End: Utilizing HTML, CSS, JavaScript, and jQuery.

Back-End: Powered by Python, Django, and MySQL.

Below is a detailed overview of the technologies implemented in our project:

1.HTML: Hyper Text Markup Language (HTML) is the backbone of web content, defining the structure of webpages. It was first introduced by Tim Berners-Lee in the early 1990s, with HTML5 being the latest version.

2.CSS: Cascading Style Sheets (CSS) control the visual presentation of web pages, allowing developers to separate content from design.

3.Javascript: JavaScript is a dynamic programming language that brings interactivity to web pages. It allows developers to create interactive user interfaces.

4.JQuery:jQuery is a fast, lightweight JavaScript library created by John Resig in 2006. It is especially known for its ease of use in handling events, animations, and AJAX calls.

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5.Python: Python is a high-level, general-purpose programming language known for its readability and simplicity. Developed by Guido van Rossum. It' s widely used in web development, data analysis, machine learning and more.

6.Django: Django is a high-level Python web framework that encourages rapid development and clean, pragmatic design. It takes care of much of the hassle of web development, so developers can focus on writing their app without needing to reinvent the wheel.

7.MYSQL: MySQL is a robust, open-source relational database management system used to manage and store data for web applications. It is a popular choice for web applications due to its reliability, scalability, and broad community support.

4.Results of Proposed Work:

Fig1:User Signup

Figure 1 shows the signup form on our Lost and Found website, designed to make registration quick and straightforward. The form includes fields for a username, which serves as a unique identifier, and an active college email address, which is used for communication and notifications.

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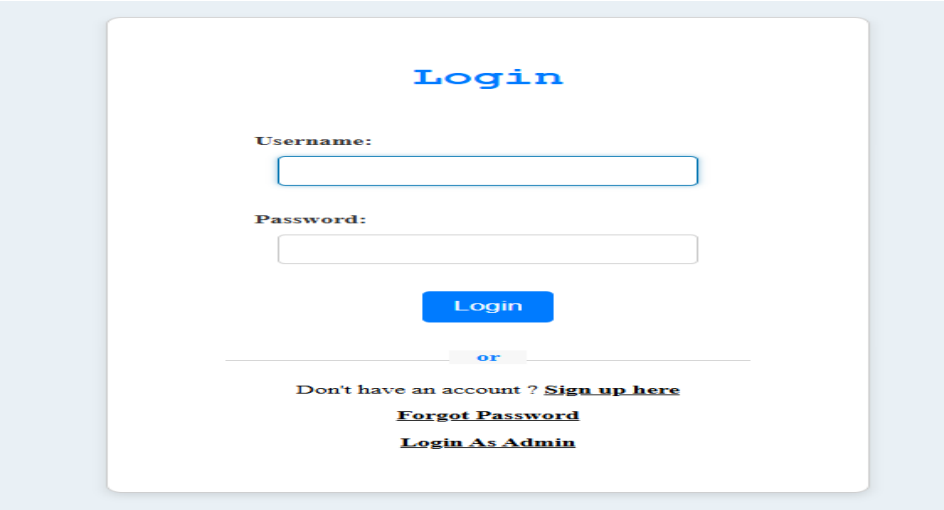

Fig2: User Login

Figure 2 shows the login form on our Lost and Found website, where users can securely access their accounts. This form requires two pieces of information: a username and a password. By entering these details and clicking the login button, users can quickly resume managing their lost or found items, ensuring their account remains secure and accessible only to them.

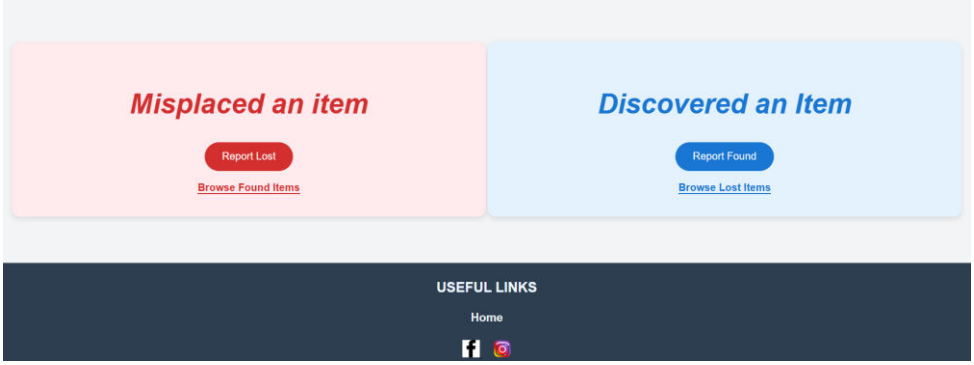

Fig3: Section for navigating to report lost or found item and view lost or found items

Figure illustrates the comprehensive process for managing lost and found items. The Report Lost form is used to record details of misplaced items, including the item' s name, a detailed description, the last known location, and contact information. Similarly, the Report Found form facilitates the reporting of items that have been discovered, capturing details such as the item' s name, a description, and the location where it was found. The Found Items section allows individuals to browse through reported items to identify potential matches for discovered belongings. Conversely, the Lost Items section provides a searchable database of reported lost items, aiding in the recovery of misplaced belongings. This system ensures that both lost and found items are efficiently cataloged and matched to facilitate their return.

NAME	ITEM NAME	LOCATION	DATE FOUND	Time Found	CONTACT INFORMATION
krant	laptop	cse	Nov. 4, 2024	3:03 p.m.	8008566453
nagaraju	bag	seminar	Sept. 10, 2024	11:30 a.m.	9121861694
minny	id card	semianr hall	Sept. 4, 2024	12:58 p.m.	6302193783
sandeep	Keys	EEE block	Aug. 10, 2024	7:24 p.m.	8008566453

Fig4: Page for showing lost items

Figure 4 shows lost items details in a well-organized table format. The table includes the following columns Name, Item Name, Location, Date Found, Details, and Contact Information. The Name column identifies the individual who lost the item, adding a personal touch. Item Name describes the lost item, helping users quickly identify what is missing. Location specifies where the item was lost, guiding users to the relevant search area. Date Found provides the timeline of when the item was discovered. Lastly, Contact Information allows users to easily reach out to the person who found the item, facilitating smooth communication for item retrieval.

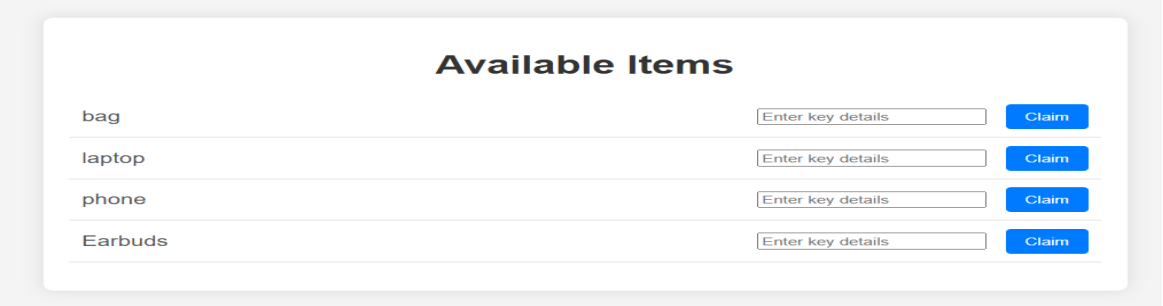

Fig 5:Page for showing found items

Figure 5 displays the page where users can claim an item by entering key details. To claim an item, users select the item type (e.g., bag, pen, laptop) and fill out a form with specific information such as descriptions, distinguishing features, and any other relevant details. After completing the form, users click the Claim button to submit their claim.

Upon submission, the system automatically notifies the original poster of the item. This notification includes crucial details about the claimant, such as their name, contact information, and email address. Additionally, the notification provides a summary of the key details entered by the claimant regarding the item. This ensures that the poster receives all necessary information to review and verify the claim, facilitating a smooth and efficient process for item recovery.

5.Conclusion

Our website offers a valuable service, delivering both reassurance and a dependable method for returning lost items to their rightful owners. This platform is a critical resource for individuals seeking to reconnect with their belongings, underscoring the idea that support and assistance are readily available when needed.

There is substantial potential for further development in our project. Future enhancements could include integrating advanced Python libraries, which would enable additional functionalities such as sophisticated tracking systems for individuals who report lost items. This could improve the overall accuracy and efficiency of item recovery. Furthermore, our website' s unique email functionality facilitates seamless communication between users, a feature not commonly found on similar platforms. This capability ensures that users can easily exchange information and coordinate efforts to return lost items.

Looking ahead, our project can be significantly enhanced by exploring emerging technologies and functionalities. Potential improvements might include incorporating machine learning algorithms for better item matching, developing a mobile app to increase accessibility, and implementing real-time notifications to keep users informed about their reports. By continuously innovating and expanding the features offered, our platform can provide an even more comprehensive and user-friendly experience, setting a new standard in the realm of lost and found services.

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