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***Abstract*—A web-based administration panel for resource management was developed, including real-time mapping, user activity logging, and complaint management. PHP code was written to connect to the database and perform CRUD operations, demonstrating the importance of planning, design, and feedback.**

***Keywords*—Web admin panel, User-friendly interface, Real-time mapping, Logging, Complaint management, PHP, MySQL, Software development, Planning, Feedback**

I. Introduction

An important step toward building a complete resource management system is the construction of a web-based administration panel. This creative solution, which makes use of PHP's capability, is made to give the administrator a centralized platform where they can effectively manage and keep an eye on resources, guaranteeing smooth operations and maximum efficiency.

A. Overview of the project

The admin panel will feature a dynamic map that displays the current status of resources, indicating whether they are occupied, available, or undergoing maintenance. Furthermore, the platform will provide logs of user activities and a complaint management system, enabling administrators to track and address issues promptly. The integration of PHP will enable a robust and scalable solution, capable of handling complex resource management tasks.

B. Objectives and goals

The primary objectives of this project are to:

- Design and develop a user-friendly web-based interface for administrators to monitor resource allocation and utilization
- Implement a mapping system to visualize resource status in real-time, showcasing the users currently utilizing resources
- Create a logging section to track user activities and identify areas for improvement
- Develop a complaint management section to facilitate prompt issue resolution

II. Weekly Entries

A. Week 1 (October 7-13 2024)

1) Activities:

- Design and development of a user-friendly web-based interface for administrators to monitor resource allocation and utilization.
- Implementation of a mapping system to visualize resource status in real-time.
- Creation of a logging section to track user activities.
- Development of a complaint management section to facilitate prompt issue resolution.
- Writing PHP code to connect to the database.
- Writing PHP code to perform CRUDs (Create, Read, Update, Delete) operations using SQL statements, such as selecting data, inserting new records, updating existing records, and deleting records.

PHP and MySQL are a powerful combination for building dynamic web applications, and with the right tools and techniques, you can create robust,

scalable, and secure web-based resource management systems. (1).

2) Challenges:

- Designing a user-friendly web-based interface that effectively displays resource allocation and utilization data.
- Integrating the mapping system with the database to provide real-time resource status updates.
- Ensuring the security and integrity of the database connection.
- Slowness and inefficiency were experienced in CRUD operations.

The design and implementation of a web-based admin panel system requires careful consideration of user needs, system functionality, and technical requirements.(2).

3) Solutions:

- A responsive and intuitive web-based interface was designed using HTML, CSS, and JavaScript to provide administrators with a clear view of resource allocation and utilization.
- The MySQLi extension was used to establish a secure connection to the database, ensuring the integrity of the data.
- Optimized SQL statements were used to perform CRUD operations, minimizing latency and improving user experience.

4) Reflections:

- We learned that taking the time to thoroughly plan and design each component of the project is crucial to its success.
- We realized that combining different technologies and tools can lead to innovative solutions that might not have been possible with a single approach.

III. Conclusion

A. Summary of the overall progress

The development of the web-based administration panel for resource management has made significant progress. The project has successfully designed and developed a user-friendly web-based interface for administrators to monitor resource allocation and utilization. The implementation of a mapping system to visualize resource status in real-time, a logging section to track user activities, and a complaint management system to facilitate prompt issue resolution have been completed. Additionally, PHP code has been written to connect to the database and perform CRUD operations using SQL statements.

B. Final reflections

Through this part of the project, we have learned the importance of detailed planning and design in the development of a complex project. We have realized that integrating different technologies and tools can lead to innovative solutions that might not have been possible with a single approach. Furthermore, we have understood the value of feedback and iteration in the development process to ensure that the project meets the requirements and expectations of users.

Overall, this part of the project has provided a valuable learning experience, and we are confident that the web-based administration panel will provide a robust and scalable solution for resource management, enabling administrators to effectively manage and monitor resources, ensuring smooth operations and maximum efficiency.

References

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