

# Web-Based Sea Transportation Management System using Laravel Framework

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**Abstract:** *The study aimed at improving the management of sea transportation operations. The project addresses existing challenges in coordinating cargo, containers, and vessels, seeking to enhance operational efficiency and cost-effectiveness in the maritime industry. Through a comprehensive review of related studies and existing web-based solutions, the study identifies gaps in current approaches. Leveraging the robust and flexible Laravel Framework, the system is developed with a focus on rapid deployment and scalability. The system aims to provide users with a user-friendly interface and seamless user experience. Results and discussions evaluate the system's implementation and functionality, incorporating user testing and feedback. Performance evaluations and comparisons with existing solutions further highlight its advantages*

**Keywords:** web-based, management system, cargo, maritime

## REFERENCES

- [1]. Veerakumar, S., Raja, S. G., & Krishnaveni, R. (2018). Role of Information Technology in Sea Transport Management. *International Journal of Business and Administration Research Review*, 3(7), 185-189.
- [2]. Taylor, T. (2021). *Laravel: The PHP Framework for Web Artisans*. Laravel. Retrieved from <https://laravel.com/>
- [3]. Huang, G. Q., Zhang, T., & Qu, T. L. (2017). A study of CargoSmart in global supply chain management: The logistics and supply chain system for sea transportation. *International Journal of Production Economics*, 183, 524-533.
- [4]. Liu, Y., Yu, M., Lu, J., Li, C., & Wang, X. (2020). Development of GT Nexus-Based Sea-Rail Multimodal Transport Scheduling Platform. In *Proceedings of the 2020 International Conference on Artificial Intelligence and Industrial Automation* (pp. 194-198). ACM.
- [5]. Chowdhury, T. M., & Fattah, S. A. (2020). *Laravel PHP Framework: A Comprehensive Study on Security Features and Recent Trends*. In *2020 International Conference on Cyber Warfare and Security (ICCWS)* (pp. 47-54). Academic Conferences International Limited.
- [6]. Albakri, M. S. M., Mohd, H. M., & Yusof, Y. (2019). A Review of Web-Based Port Management Systems. In *IOP Conference Series: Earth and Environmental Science* (Vol. 220, No. 1, p. 012080). IOP Publishing.
- [7]. Barron, J. M., Bates, M., Lu, M., & Skinner, C. (2019). *Information Systems for Business and Beyond*. Saylor Academy.
- [8]. Zhang, G., & Zhang, Y. (2020). Research and Application of Distributed Database System Based on JavaEE Technology. In *IOP Conference Series: Earth and Environmental Science* (Vol. 445, No. 1, p. 012048). IOP Publishing.
- [9]. Barr, J., & Feigenbaum, C. (2019). *Database Systems: A Practical Approach to Design, Implementation, and Management*. Pearson.
- [10]. Cvetkovski, B. (2020). *Mastering Laravel*. Packt Publishing Ltd.
- [11]. Marini, I., & Siti, A. (2021). The Role of Feedback in the Design of Interactive Software for Children. *Universal Access in the Information Society*, 20(1), 207-215