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Design and Implementation of a Cloud-Native Full-Stack Restaurant Management System (RMS) Using Microservices Architecture

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Abstract: *In the contemporary hospitality landscape, operational efficiency and data-driven decision-making are paramount. Traditional Paper-based systems and legacy monolithic software often fail to provide the scalability required for modern dining establishments. This paper details the development of a comprehensive Restaurant Management System (RMS) built on a full-stack framework and deployed via Amazon Web Services (AWS). By leveraging a microservices approach, the system decouples core functionalities such as order processing, inventory tracking, and kitchen management. The study explores the technical challenges of maintaining real-time synchronization between the front-of-house (FOH) and back-of-house (BOH) operations, concluding with an analysis of performance metrics and user-centric design principles.*

Keywords: *data-driven decision*

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