

ABSTRACT

Design and Development of a Web-Based Server Resource and Microservice Monitoring Application with Telegram Notifications at PT. XYZ Using the Waterfall Approach

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Servers are a crucial foundation for microservice applications. With a robust and well-managed server infrastructure, companies can ensure their microservice applications run smoothly, efficiently, and securely. PT. XYZ faces significant challenges in monitoring server resources and the status of microservice applications. The monitoring process is performed manually and repetitively on a weekly schedule. This manual approach makes it difficult for infrastructure staff to detect high resource usage and incidents such as sudden application crashes. Therefore, a monitoring application equipped with notifications via Telegram is needed. This system is designed to provide information about server resources and the status of microservice applications. With notifications when critical situations occur, such as resource usage exceeding limits or sudden application crashes, the infrastructure team can respond promptly and take necessary actions to address the issues. This research uses a descriptive qualitative method with a waterfall approach in designing the monitoring application. This approach involves the stages of planning, analysis, design, and implementation. The implementation of this system is expected to assist PT. XYZ's infrastructure staff in monitoring and managing servers more effectively, proactively identifying potential problems, and responding quickly to conditions that may affect application performance.

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