DEVELOPMENT OF OFFLINE MODE AND DATA SYNCHRONIZATION ON QR CODE BASED ABSENCE APPLICATION FOR EMPLOYEES OF PT.BINTANG ENERGI PRATAMA

Name	:	Nadya Kusuma Indah
Student ID	:	6304211387
Name Of Supervisor	:	Lidya Wati, M.Kom

Abstract

This study proposes the development of a QR Code-based attendance application equipped with offline mode and data synchronization features, using the Rapid Application Development (RAD) method. In PT. Bintang Energi Pratama, employee attendance management is a significant challenge, especially when the internet connection is unstable. Therefore, this system is designed to enable efficient attendance recording even without internet access, with data stored locally. When the connection is back available, the system automatically synchronizes data to the central server, ensuring the accuracy and integrity of attendance information. The Rapid Application Development (RAD) method is used in the development of this system to accelerate the design, implementation, and testing processes, and ensure that the required features can be quickly adapted based on user feedback. The results of this study are expected to improve the productivity and efficiency of employee attendance management, as well as provide an effective solution to the challenges of attendance in a dynamic work environment.

Keywords: *Attendance Application, QR Code, Offline Mode, Data Synchronization, Rapid Application Development (RAD) Method.*