ENERGY CONSUMPTION ANALYSIS SYSTEM, FACULTY OF BUSINESS ADMINISTRATION, USING BUSINESS INTELLIGENCE CONCEPT

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Abstract

Since the Faculty of Business Administration, Maejo University, has implemented the "Green Office" policy to promote the reduction of energy resource usage, there are still no clear tools for systematically recording, comparing, and displaying the outcomes of these operations. This results in a lack of empirical evidence to support decision-making and determine the direction for efficient energy reduction. Therefore, the development of an energy consumption analysis dashboard, applying business intelligence concepts, is proposed to present energy consumption data and trends in a clear dashboard format. This will enable executives and stakeholders to effectively monitor, compare, and analyze energy consumption, as well as utilize the data to forecast future trends for better planning and decision-making.

Introduction

In the development of modern organizational management systems, the effective use of data is a crucial factor in decision-making and strategic planning. This is particularly important in the context of energy management, where energy is a valuable resource that must be used carefully and with maximum efficiency. During the cooperative education program at Maejo University, the assigned project was the development of an energy consumption analysis system for the Faculty of Business Administration using the Business Intelligence concept.

This project aimed to develop an energy consumption analysis system for the Faculty of Business Administration by applying the principles of Business Intelligence, which focus on analyzing, synthesizing, and presenting existing data in an easily understandable format to support managerial decision-making.

In this study, energy consumption data from buildings and various energy usage sources within the Faculty of Business Administration, Maejo University, were processed and presented in the form of dashboards. These dashboards display information through data visualization techniques that clearly and effectively communicate insights. This allows relevant stakeholders, such as faculty administrators, system operators, and related personnel, to conveniently and quickly access energy consumption data and use it to supporting appropriate and effective energy management planning.

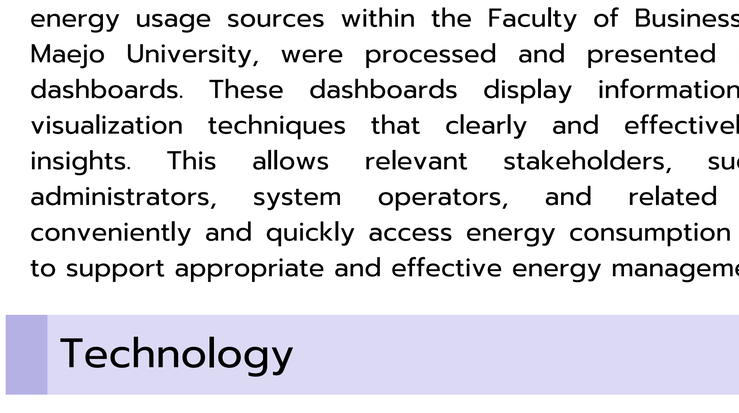
Technology

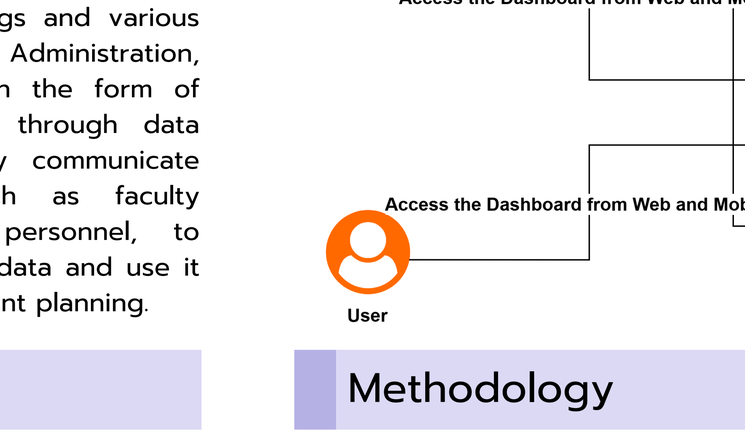
Power BI

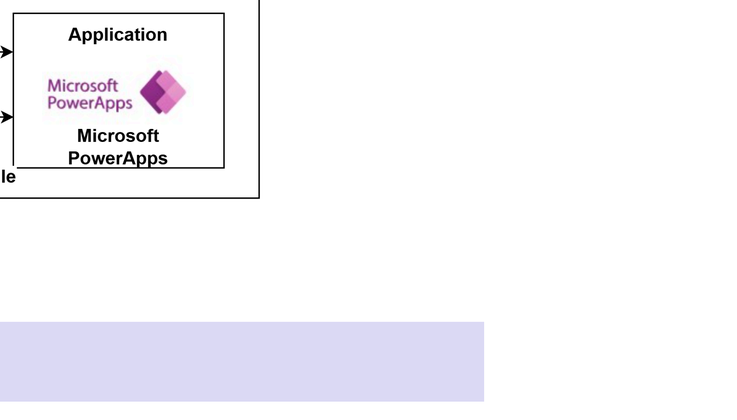
Conclusion

The trainee was assigned to develop an energy consumption analysis system based on the Business Intelligence concept, with the objective of using it as a tool to analyze, monitor, and present empirical data related to the implementation of the Faculty of Business Administration's "Green Office" policy.

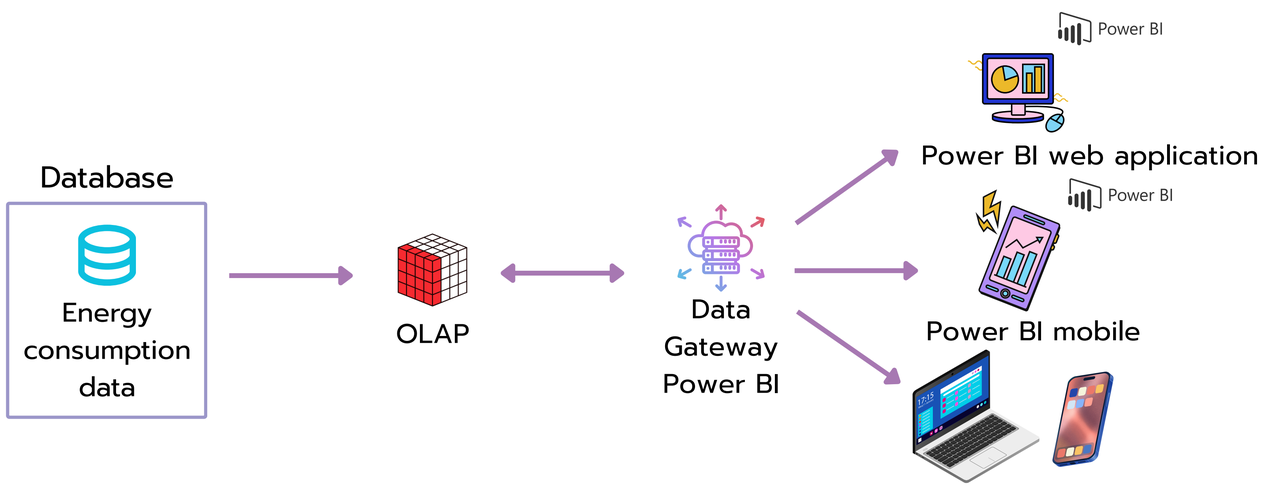
Results





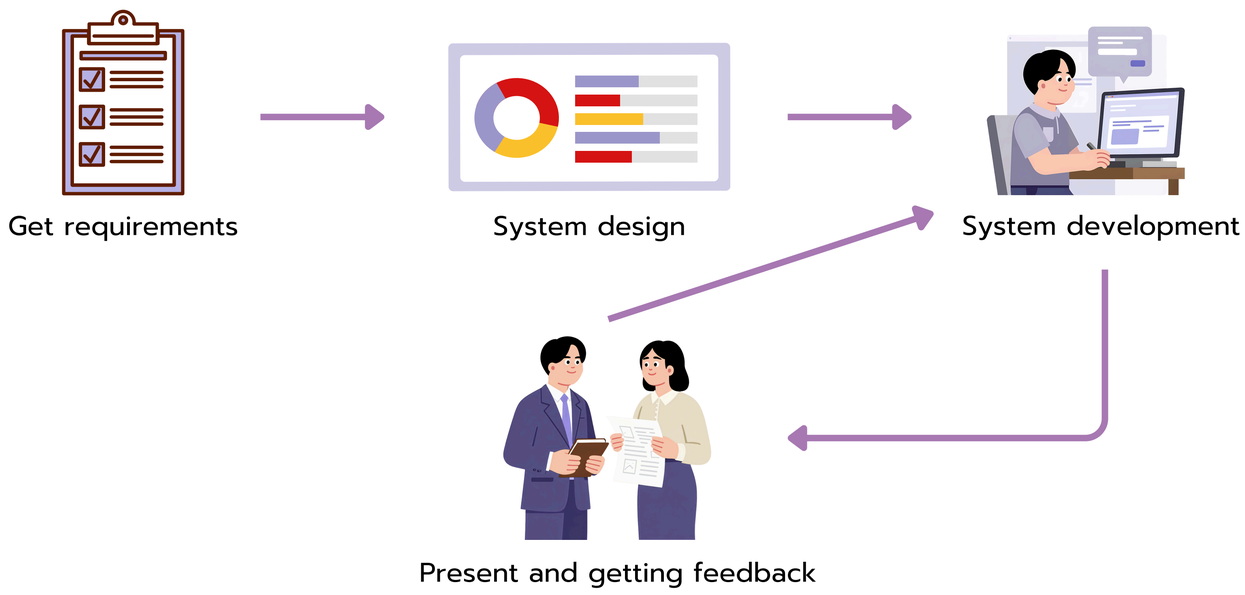


Data flow diagram of system



Architecture

Methodology



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