

IMPLEMENTING ADVANCED ANALYTICS FOR REAL-TIME DECISION MAKING IN ENTERPRISE SYSTEMS

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ABSTRACT

The integration of advanced analytics into enterprise systems has transformed the way organizations make decisions by enabling real-time data-driven insights. This paper explores the implementation of advanced analytics tools and techniques, such as machine learning, predictive modeling, and data mining, within enterprise systems to enhance real-time decision-making processes. By leveraging vast datasets from diverse sources, these systems can provide actionable insights, improve operational efficiency, and foster proactive decision-making. The research highlights the architecture and components required for deploying real-time analytics, including data integration, cloud computing, and artificial intelligence. Additionally, it examines the challenges organizations face in adopting these technologies, such as data security, scalability, and workforce readiness. The findings suggest that enterprises that implement advanced analytics successfully can significantly enhance business agility, improve customer experiences, and gain a competitive advantage in rapidly evolving markets.

KEYWORDS: Advanced Analytics, Real-Time Decision-Making, Enterprise Systems, Machine Learning, Predictive Modeling, Data Integration, Cloud Computing, Operational Efficiency, Business Agility, Artificial Intelligence

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