DATABASE SCHEMA MODELS AND THEIR APPLICATION IN BUSINESS INTELLIGENCE REPORTING

Kremena Stefanova, Veselina Naneva

Abstract. The paper focuses on the role of database models in the workflow of the Business Intelligence (BI) process. It outlines the primary schema types – relational, multidimensional (star and snowflake schemas), and data vault, and discusses their application in data processing and the development of analytical business solutions. Particular attention is given to selecting an appropriate architecture to ensure efficient ETL/ELT operations and high system performance. Through the use of leading web-based BI platforms, such as Power BI and Tableau, different approaches for database modeling are illustrated. The study concludes by highlighting the importance of well-structured data architectures in enabling high-quality analytics and informed decision-making.

Key words: Database Models, Business Intelligence, Schema.

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