

Practical Exercise

Choosing the Right Data Storage Solutions for a Real-World Application

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Data Type	Database Type	Justification
Customer Data	Relational Database	Structured data, requires strong consistency Complex queries
Product Catalog	NoSQL databases	Semi structured data since it contains images, Flexibility for dynamic schema NoSQL document databases like MongoDB efficiently manage this type of data with support of rapid updates
Order Data	Relational Database	Data must be consistent and transactional payment processing and order confirmation Relationships between tables like customer, products, and orders can be managed efficiently
Customer Reviews and Ratings	NoSQL Database	Data is semi-structured like customer feedback,, Allows flexibility for querying attributes like keywords, ratings and user feedback Fast and flexible search and indexing
Website Clickstream Data	NoSQL Database	High velocity and high volume data require efficient write and read performance. NoSQL is best for processing and analysis for insights and user behavior