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 |