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CHARACTERISTICS	RELATIONAL DATABASE	DATA WAREHOUSE	DATA LAKE	DATA MART	OPERATIONAL DATA STORE
Data types	Structured, numerical data, text and dates organized in a relational model	Relational data from transactional systems, operational databases and applications	Structured and unstructured data from sensors, websites, business apps, mobile apps, etc.	Relational data subsets for specific applications	Transactional data from multiple sources
Purpose	Transaction processing	Data stored for business intelligence, batch reporting and data visualization	Big data analytics, machine learning, predictive analytics and data discovery	Data used by a specific user community for analytics	Ingest, integrate, store and prep data for operations or analytics; often feeds a data warehouse
Data capture	Data captured from a single source, such as a transactional system	Data captured from multiple relational sources	Data captured from multiple sources that contain various forms of data	Data typically captured from a data warehouse, but can also be from operational systems and external sources	Data captured from multiple enterprise applications/sources
Data normalization	Uses normalized, static schemas	Denormalized schemas; schema-on-write	Denormalized; schema-on-read	Normalized or denormalized	Denormalized
Benefits	Provides consistent data for critical business applications	Historical data from many sources stored in one place; data is classified with user in mind for accessibility	Data in its native format from diverse sources gives data scientists flexibility in analysis and model development	Easy, fast access to relevant data for specific applications and types of users	Fast queries on smaller amounts of real-time or near-real-time data for reporting and operational decisions
Data quality	Data is organized and consistent	Curated data that is centralized and ready for use in BI and analytics	Raw data that may or may not be curated for use	Highly curated data	Data is cleansed and compliant, but may not be as consistent as in a data warehouse



