Comparison: SQL vs NoSQL Databases

Feature	SQL Databases (Relational)	NoSQL Databases (Non-relational)
Data Model	Structured (tables with rows and columns)	Flexible (documents, key-value, graph, wide-column)
Schema	Fixed schema (predefined structure)	Dynamic schema (fields can vary across records)
Scalability	Vertically scalable	Horizontally scalable
Query Language	Structured Query Language (SQL)	Varies (e.g., MongoDB uses JSON-like queries)
ACID Compliance	Fully ACID-compliant	Not always ACID, often BASE
Examples	MySQL, PostgreSQL, Oracle, SQL Server	MongoDB, Cassandra, Redis, CouchDB
Best For	Complex queries, multi-row transactions	Big data, real-time applications, unstructured data
Joins Support	Yes	Limited or not supported
Performance	Better for structured data and relationships	Better for large volumes of varied data
Storage Format	Tabular	JSON, XML, key-value pairs, or graph structures
Use Cases	Banking systems, ERP, CRM	IoT apps, content management, real-time analytics