



How database systems technologies evolved historically?

#	Milestone	Details
1	Early Days (1950s-1970s)	
-	Relational Algebra	The concept of relational algebra was introduced by Edgar F. Codd, which laid the foundation for modern relational databases.
-	IBM 7094 Database System	IBM developed one of the first commercial database management systems using a magnetic tape-based storage system.
-	Ingres	Ingres was one of the first commercial database management systems, designed to manage large-scale relational databases.
2	Mainframe Era (1970s-1980s)	
-	COBOL and SQL	COBOL became a popular programming language for mainframe applications, while SQL emerged as a standard language for managing relational databases.
-	Oracle Database	Oracle developed one of the first commercial database management systems, which became widely used in the 1980s.
-	Microsoft SQL Server	Microsoft released its first commercial database management systems, based on the Transact-SQL language.
3	Personal Computer Era (1980s-1990s)	
-	IBM Informix	Informix became one of the first commercial database management systems for personal computers.
-	Oracle Database on Sun Microsystems	Oracle's database was ported to Sun Microsystems' SPARC architecture, making it more accessible to personal computer users.
-	Microsoft Access and SQL Server	Microsoft released its popular database management system, Access, which integrated with its SQL Server DBMS.



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4	Web Era (1990s-2000s)	
-	MySQL	MySQL became one of the first open-source relational databases, widely used on web servers.
-	PostgreSQL	PostgreSQL emerged as a popular open-source relational database, known for its reliability and scalability.
-	Microsoft SQL Server 2000	Microsoft released its SQL Server DBMS with improved support for web-based applications.
5	NoSQL Era (2000s-2010s)	
-	Google BigTable	Google developed a NoSQL database, designed to handle large amounts of semi-structured data.
-	MongoDB	MongoDB became one of the first widely adopted NoSQL databases, known for its flexible schema and high performance.
-	Redis	Redis emerged as a popular in-memory data store, used for caching and other applications.
6	Cloud Era (2010s-present)	
-	Amazon DynamoDB	Amazon released its first managed NoSQL database service, which became widely adopted on cloud platforms.
-	Microsoft Azure Cosmos DB	Microsoft developed a globally distributed multi-model database, designed for hybrid and cloud-based applications.
-	Google Cloud Firestore	Google released a fully managed NoSQL document database, built on top of its Cloud Platform.



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7	Emerging Trends (2020s)	
-	Graph Databases	Graph databases are becoming increasingly popular, used to manage complex relationships between data entities.
-	Time Series Databases	Time series databases are designed to handle large amounts of time-stamped data, such as sensor readings and IoT data.
-	Cloud-Native Databases	Cloud-native databases are designed to take advantage of cloud computing's scalability and flexibility.