Aspect	DBMS (Database Management System)	DSMS (Data Stream Management System)
Data Storage	Stores **persistent data** in tables or other structures on disk	Manages **real-time, transient data streams** without persistent storage
Data Type	Handles **static data** that doesn't change unless modified by a transaction	Deals with **dynamic, continuous data streams** that arrive in real time
Query Processing	Processes queries on stored data; queries are initiated and run by users	Queries are **continuous** and continuously applied to incoming data streams
Query Results	Returns a **one-time result** after query execution	**Continuous results** that are updated as new data arrives
Latency Requirements	Latency is usually less critical; supports **batch processing** and complex joins	**Low-latency requirements**; designed for **real-time or near-real-time** processing
Data Update Frequency	**Low frequency**; data changes infrequently unless explicitly updated	**High frequency**; continuously processes incoming data streams
Architecture	Centralized or distributed; data stored in databases and accessed on demand	Typically a distributed system optimized for high-throughput streaming data
Examples of Use Cases	Traditional applications like banking, inventory management, and HR systems	Real-time monitoring, IoT, network traffic analysis, stock market applications
Consistency & Transactions	**ACID-compliant transactions** for consistency and integrity	Often uses **approximate or eventual consistency** for faster, real-time responses
Examples	MySQL, PostgreSQL, Oracle DB	Apache Kafka, Apache Flink, Apache Storm, Apache Samza