Generated Notes

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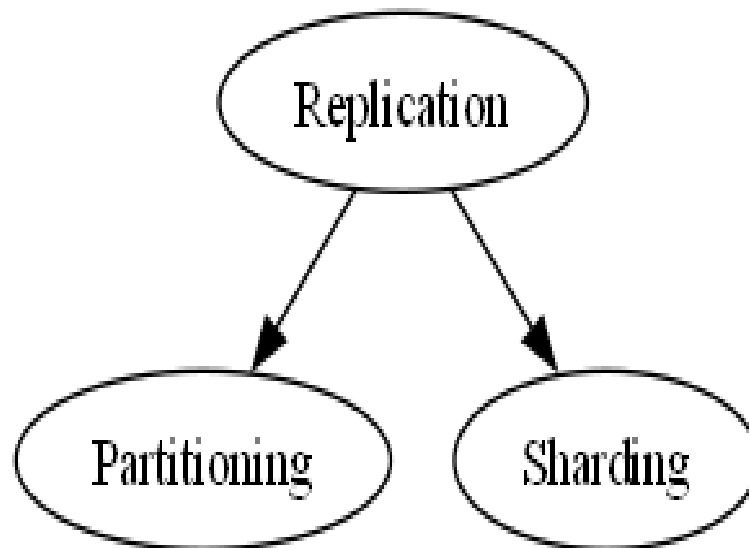
Introduction to PostgreSQL

- Originates from the POSTGRES project at the University of California
- Used in various industries like financial services, aviation, and medicine
- First open-source release in 1994 as Postgres95
- Renamed to PostgreSQL and generally pronounced as Postgres
- Part of the LAPP stack for web applications and websites

PostgreSQL: Open Source, Object-Oriented, and Flexible DBMS

- Supports inheritance and overloading like object-oriented programming languages
- Compatible with most common operating systems
- Low maintenance threshold for easy implementation
- Supports ANSI-SQL standards and multiple programming languages
- Offers standard relational database constructs and some NoSQL functionality

Database Replication for High Availability

• Stores a copy of data on a second server
• Applies changes made to Node 1 to Node 2
• Enables sharing read loads across two servers
• Supports multi-node asynchronous replication
• Distributing changes from master node to multiple read-only replicas for scalability

PostgreSQL Enhancements for Scalability

• Supports replication
• Improves query performance with partitioning
• Enables sharding for horizontal scalability