

Briefly explain the three (3) main goals of database security.

01            a.            i

- Confidentiality - Confidentiality ensures that sensitive data remains protected from unauthorized access or disclosure.
- Integrity - Integrity ensures the accuracy, consistency, and reliability of data stored in the database.
- Availability - Availability ensures that the database and its data are accessible and usable when needed.

What role does NoSQL play in enterprises?

01            a.            ii

- Handling Big Data - Enterprises deal with vast amounts of data generated from various sources.
- Flexibility with Data Models - NoSQL databases offer flexible data models, allowing enterprises to store and manipulate different types of data.
- High Scalability and Performance - NoSQL databases provide horizontal scalability, enabling enterprises to handle massive data growth and increased workloads.
- Distributed Architectures - Enterprises increasingly adopt distributed and cloud-based architectures.
- Real-time Analytics - Many NoSQL databases provide built-in capabilities for real-time analytics and processing.

How is ACID handled in NoSQL?

02 a. i

- ACID (Atomicity, Consistency, Isolation, Durability) is a set of properties that guarantee reliable processing of database transactions.
- Atomicity
- Consistency
- Isolation
- Durability

What is the role of sharding in NoSQL?

02 a. ii

- Sharding in NoSQL databases plays a crucial role in achieving scalability and performance by distributing data across multiple nodes or servers.
- Horizontal scalability
- Data distribution
- Load balancing
- Improved query performance