

Question Bank for NoSQL Databases (23AD08)

Unit I: Overview and History of NoSQL Databases

2 Marks Questions

1. Define NoSQL databases.
2. List the four types of NoSQL databases.
3. What is impedance mismatch?
4. Mention one key point about the emergence of NoSQL.
5. What is concurrency in databases?
6. State the value of relational databases.
7. What is persistent data?
8. Define application databases.
9. What is cluster attack in databases?
10. Mention one integration challenge in databases.

5 Marks Questions

1. Explain the history and evolution of NoSQL databases.
2. Compare relational databases and NoSQL databases briefly.
3. Discuss the concept of impedance mismatch with an example.
4. Explain concurrency in database systems.
5. Describe the importance of persistent data.
6. Explain the emergence of NoSQL databases.
7. Discuss integration issues in databases.
8. Explain the concept of application and integration databases.
9. Write short notes on cluster attacks.
10. Explain the key points of NoSQL databases.

10 Marks Questions

1. Discuss in detail the history and overview of NoSQL databases.
2. Explain the four types of NoSQL databases with examples.
3. Compare relational databases with NoSQL databases in detail.
4. Explain impedance mismatch and its impact on database systems.
5. Discuss concurrency and integration in databases.
6. Explain the emergence of NoSQL databases and its significance.
7. Describe persistent data and its role in databases.
8. Discuss application and integration databases with examples.
9. Explain cluster attacks and their impact on databases.
10. Write a detailed note on the key points of NoSQL databases.

Unit II: Comparison of RDBMS and NoSQL Stores

2 Marks Questions

1. Define RDBMS.
2. What is MongoDB?
3. Mention one feature of Cassandra.
4. What is HBASE?
5. Define Neo4j.
6. What is replication in databases?
7. Define sharding.
8. What is MapReduce?
9. Mention one challenge of NoSQL approach.
10. Define aggregate-oriented databases.

5 Marks Questions

1. Compare RDBMS with NoSQL databases.
2. Explain the use and deployment of MongoDB.
3. Discuss the features of Cassandra.
4. Explain the architecture of HBASE.
5. Describe Neo4j and its applications.
6. Explain replication and sharding in databases.
7. Discuss MapReduce on databases.
8. Explain distribution models in databases.
9. Compare key-value and document data models.
10. Discuss challenges in NoSQL approach.

10 Marks Questions

1. Compare relational databases with NoSQL stores in detail.
2. Explain MongoDB, Cassandra, HBASE, and Neo4j with applications.
3. Discuss replication and sharding in detail.
4. Explain MapReduce and its role in databases.
5. Describe distribution models with examples.
6. Compare key-value and document data models in detail.
7. Explain column-family stores and aggregate-oriented databases.
8. Discuss challenges in NoSQL approach with solutions.
9. Explain RDBMS approach vs NoSQL approach.
10. Write a detailed note on use and deployment of NoSQL databases.

Unit III: Document-Oriented NoSQL Databases

2 Marks Questions

1. Define document-oriented databases.
2. What is MongoDB?
3. Mention one feature of document databases.

4. Define consistency in databases.
5. What is availability?
6. Define transactions.
7. Mention one query feature of document databases.
8. What is scaling?
9. Mention one suitable use case of document databases.
10. Define event logging.

5 Marks Questions

1. Explain the features of document-oriented databases.
2. Discuss consistency and transactions in document databases.
3. Explain availability in document databases.
4. Describe query features of document databases.
5. Explain scaling in document databases.
6. Discuss suitable use cases of document databases.
7. Explain event logging in document databases.
8. Discuss content management systems using document databases.
9. Explain blogging platforms using document databases.
10. Discuss e-commerce applications using document databases.

10 Marks Questions

1. Explain document-oriented database features in detail.
2. Discuss consistency, transactions, and availability in document databases.
3. Explain query features and scaling in document databases.
4. Discuss suitable use cases of document databases with examples.
5. Explain event logging and content management systems.
6. Discuss blogging platforms and web analytics using document databases.
7. Explain e-commerce applications using document databases.
8. Discuss complex transactions spanning different operations.
9. Explain queries against varying aggregate structure.
10. Write a detailed note on document-oriented databases using MongoDB.

Unit IV: Column-Oriented NoSQL Databases

2 Marks Questions

1. Define column-oriented databases.
2. What is Apache HBASE?
3. Mention one feature of column-family data store.
4. Define consistency in column-oriented databases.
5. What is availability?
6. Define transactions.
7. Mention one query feature of column-oriented databases.
8. What is scaling?

9. Mention one suitable use case of column-oriented databases.
10. Define counters.

5 Marks Questions

1. Explain the architecture of HBASE.
2. Discuss features of column-family data stores.
3. Explain consistency and transactions in column-oriented databases.
4. Describe availability in column-oriented databases.
5. Explain query features of column-oriented databases.
6. Discuss scaling in column-oriented databases.
7. Explain suitable use cases of column-oriented databases.
8. Discuss event logging in column-oriented databases.
9. Explain content management systems using column-oriented databases.
10. Discuss blogging platforms using column-oriented databases.

10 Marks Questions

1. Explain column-oriented databases using HBASE and Cassandra.
2. Discuss architecture of HBASE in detail.
3. Explain features of column-family data stores.
4. Discuss consistency, transactions, and availability in column-oriented databases.
5. Explain query features and scaling in column-oriented databases.
6. Discuss suitable use cases of column-oriented databases with examples.
7. Explain event logging and content management systems.
8. Discuss blogging platforms and counters in column-oriented databases.
9. Explain expiring usage in column-oriented databases.
10. Write a detailed note on column-oriented databases using Apache Cassandra.

Unit V: Key-Value and Graph NoSQL Databases

2 Marks Questions

1. Define key-value databases.
2. What is Riak?
3. Mention one feature of key-value stores.
4. Define consistency in key-value databases.
5. What is availability?
6. Define transactions.
7. Mention one query feature of key-value databases.
8. What is scaling?
9. Mention one suitable use case of key-value databases.
10. Define graph databases.

5 Marks Questions

1. Explain features of key-value databases.
2. Discuss consistency and transactions in key-value databases.
3. Explain query features of key-value databases.
4. Describe scaling in key-value databases.
5. Discuss suitable use cases of key-value databases.
6. Explain storing session information in key-value databases.
7. Discuss user profiles and preferences in key-value databases.
8. Explain shopping cart data in key-value databases.
9. Discuss relationships among data in key-value databases.
10. Explain graph databases and their features.

10 Marks Questions

1. Explain key-value databases using Riak in detail.
2. Discuss features of key-value stores.
3. Explain consistency, transactions, and query features in key-value databases.
4. Discuss scaling and suitable use cases of key-value databases.
5. Explain storing session information, user profiles, and preferences.
6. Discuss shopping cart data and relationships among data.
7. Explain multi-operation transactions in key-value databases.
8. Discuss query by data and operations by sets.
9. Explain graph databases using Neo4j in detail.
10. Write a detailed note on NoSQL database development tools and programming languages.