## Company X: A rapidly growing e-commerce platform with a large volume of product and customer data.

Challenges:

1. Scalability: The platform must handle an increasing amount of data efficiently.
2. Data Structure Flexibility: The platform needs to accommodate changing data requirements.
3. Query Performance: Complex queries involving joins and aggregations should be handled efficiently.
4. Data Integrity: Maintain data consistency and accuracy.

Solution:

MongoDB, a non-relational database, addresses these challenges:

1. Scalability: MongoDB's horizontal scalability allows for easy expansion to handle increasing data volumes.
2. Data Structure Flexibility: MongoDB's flexible schema adapts to changing data structures without rigid table structures.
3. Query Performance: MongoDB efficiently handles complex joins and aggregations on large datasets.
4. Data Integrity: MongoDB's data validation and replication features ensure data consistency and integrity.

Criteria for Choosing MongoDB:

1. Scalability: NoSQL databases, like MongoDB, offer better horizontal scalability compared to relational databases.
2. Query Performance: For basic queries on massive datasets, NoSQL databases outperform relational databases.
3. Development Speed: NoSQL databases' flexible schema allows for faster iterations and development cycles.

In summary, MongoDB's scalability, data flexibility, query performance, and data integrity make it a suitable choice for Company X's e-commerce platform.