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1.what is ACID property in a database?

ACID refers to the four key properties of a transaction: atomicity, consistency, isolation, and durability

# Atomicity

All changes to data are performed as if they are a single operation. That is, all the changes are performed, or none of them are.

For example, in an application that transfers funds from one account to another, the atomicity property ensures that, if a debit is made successfully from one account, the corresponding credit is made to the other account.

## Consistency

Data is in a consistent state when a transaction starts and when it ends.

For example, in an application that transfers funds from one account to another, the consistency property ensures that the total value of funds in both the accounts is the same at the start and end of each transaction.

### **Isolation**

The intermediate state of a transaction is invisible to other transactions. As a result, transactions that run concurrently appear to be serialized.

For example, in an application that transfers funds from one account to another, the isolation property ensures that another transaction sees the transferred funds in one account or the other, but not in both, nor in neither.

### Durability

After a transaction successfully completes, changes to data persist and are not undone, even in the event of a system failure.

For example, in an application that transfers funds from one account to another, the durability property ensures that the changes made to each account will not be reversed

2. what are the different authentication modes in SQL server? How can it be changed?

There are two.

A. Windows authentication is the default and is often referred to as integrated security because this SQL Server security model is tightly integrated with Windows. Specific Windows user and group accounts are trusted to log in to SQL Server. Windows users who have already been authenticated do not have to present additional credentials.

B. Mixed mode supports authentication both by Windows and by SQL Server. Username and password pairs are maintained within SQL Server

3.in what context would you use one AWS instance over another?

Based on the need since Each instance type has one or more size options that address different workload sizes. ... To make it easier for you to select the best option for your applications.

4.JAVA

5. what are the first steps to debugging a program that is running in production, so you cannot use breakpoints?

- Recognize that a bug exists.
  Isolate the source of the bug.
- Identify the cause of the bug.
  Determine a fix for the bug.
- 5. Apply the fix and test it.