

# Understanding Errors with ADO.NET

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# Topics Covered

- **SQLException and SqlError classes**
  - Catching database errors and inspecting error messages
- **RAISERROR and TRY/CATCH**
  - How to raise custom errors from the database
- **Exception Chains**
  - Dealing with InnerException and GetBaseException



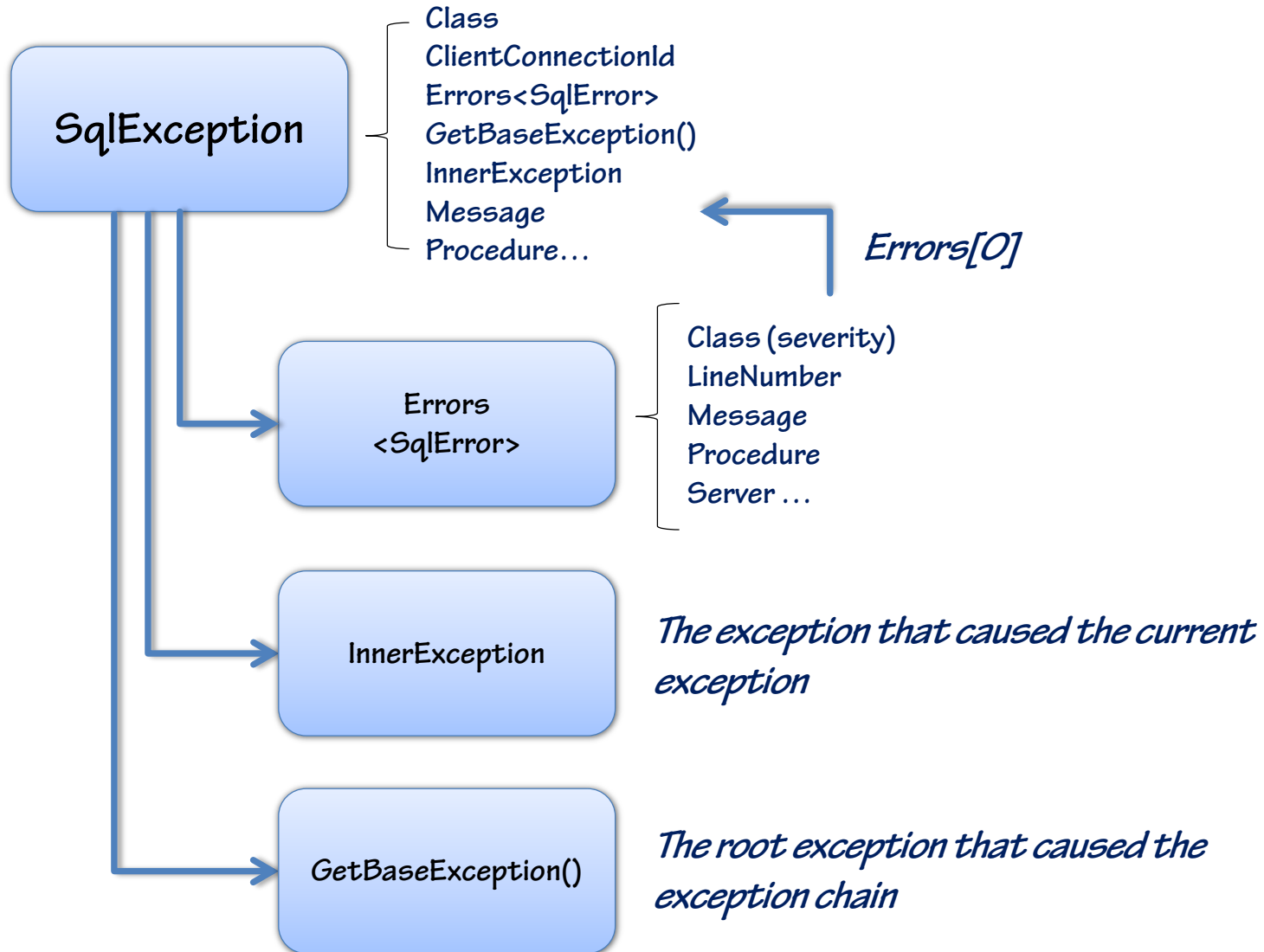
# Exception Classes with ADO.NET

- Managing exceptions can vary depending on the data provider
  - SQLException offers additional properties
- Additional exceptions may need to be handled
  - OutOfMemoryException, ThreadAbortException...
- Summary of data-provider exceptions



Data Provider	Exception Thrown	Errors Collection	MSDN Link
SqlClient	SQLException	SqlError	<a href="http://tinyurl.com/loen46s">http://tinyurl.com/loen46s</a>
Odbc	OdbcException	OdbcError	<a href="http://tinyurl.com/kvaacgl">http://tinyurl.com/kvaacgl</a>
OleDb	OleDbException	OleDbError	<a href="http://tinyurl.com/k6wmtet">http://tinyurl.com/k6wmtet</a>
OracleClient	OracleException	n/a	<a href="http://tinyurl.com/mtm8ux9">http://tinyurl.com/mtm8ux9</a>

# SQLException Details



# About the Class Property

- **Severity of the error as thrown by SQL Server or SQL Database**

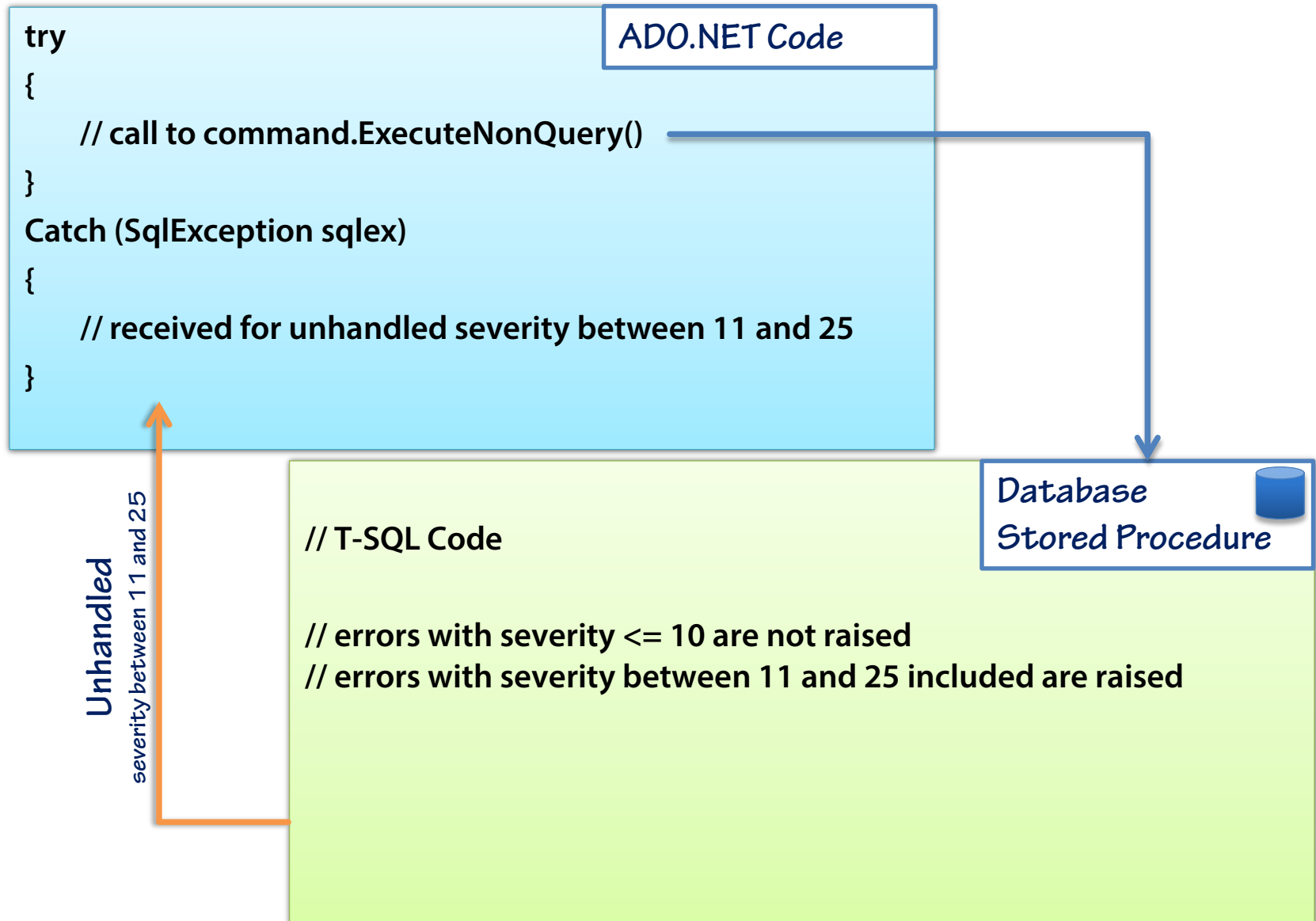
- Class property in ADO.NET = Severity in SQL Server



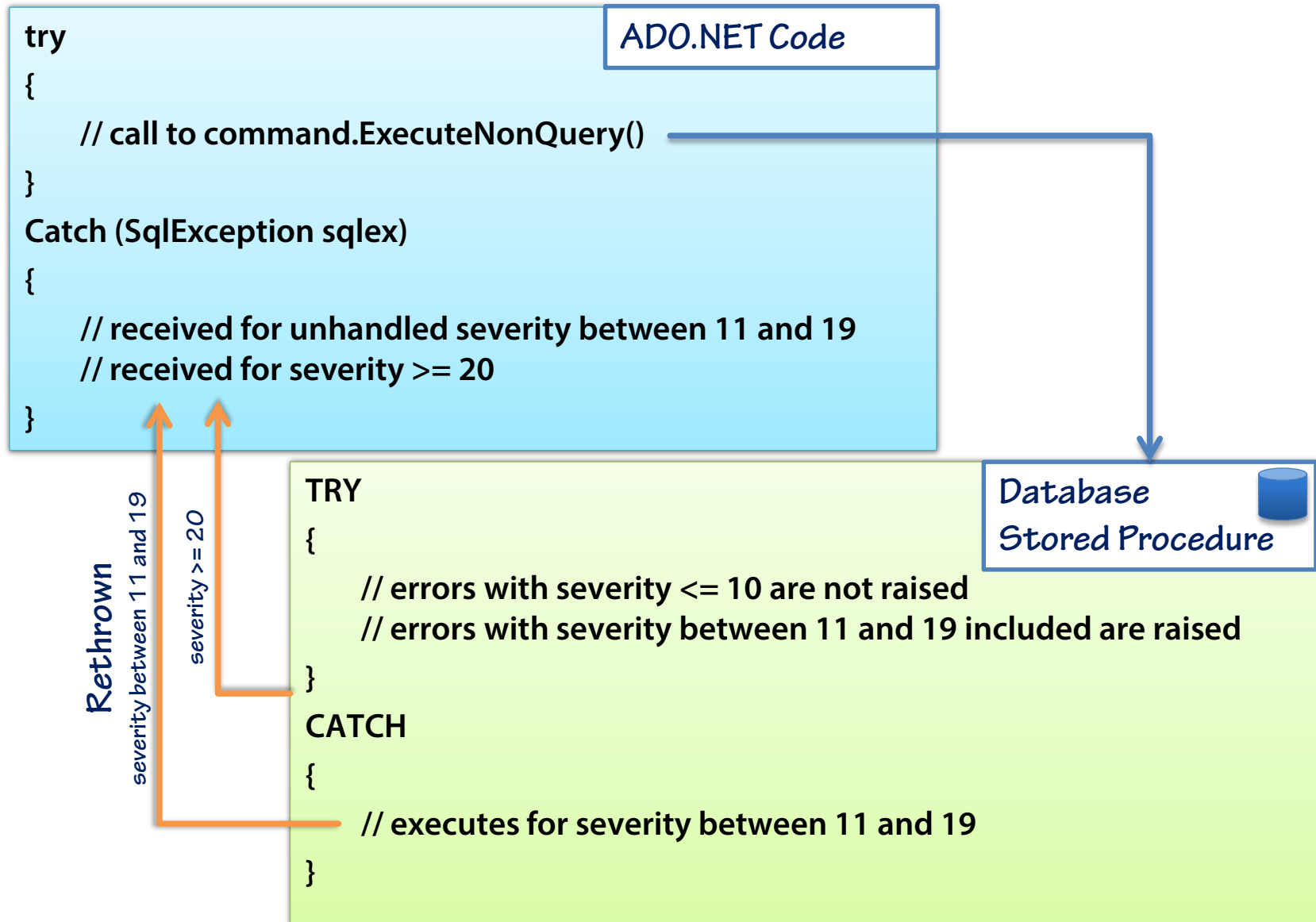
- **Severity Ranges**

- 0-10: Informational message
- 11-16: Error that can be corrected by the caller (object not found...)
- 17-19: Errors that cannot be corrected by the caller (locks, disk space...)
- 20-24: Fatal errors possibly leading to connection loss
- 25: User-defined fatal error


# Error Handling (1)



# Error Handling (2)



# Summary

- **SQLException and SqlError Classes**
- **Error handling with RAISERROR and TRY/CATCH in database**
-  **Generated Timeout, Login Failure and Unique Index errors**