

-Dokumentation



Zentrum für Informatik ZFI AG

Designing the Data Tier for Microsoft SQL Server 2005 (S9DT) - IT Ausbildung nach Mass

<http://www.zfi.ch/S9DT>

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Titel	Designing the Data Tier for Microsoft SQL Server 2005
Untertitel	der richtige Umgang mit der Datenschicht
Einleitung	Dieser ZFI/Microsoft-Kurs vermittelt den Teilnehmenden das Wissen zum Planen der Datenschicht für den Microsoft SQL Server 2005. Datenbank-Entwickler erarbeiten an diesem Tag das Design des Datenzugriffs und der Nutzung ihrer Daten durch die Anwendungs-Entwickler. Diese Thematik ist heutzutage eine Hauptfehlerquelle in Datenbank-Lösungen.
Ihr Nutzen	After completing this clinic, students will be able to: Choose data access technologies and an object model to support an organization's business needs. Design an exception handling strategy. Choose a cursor strategy. Design query strategies using Multiple Active Result Sets (MARS). Design caching strategies for database applications. Design a scalable data tier for database applications.
Voraussetzungen	Before attending this clinic, students must: Have experience reading user requirements and business-need documents. For example, development project vision/mission statements or business analysis reports. Have basic knowledge of the Microsoft .NET Framework, .NET concepts, ADO.NET, and service oriented architecture (SOA). Be familiar with the tasks that application developers typically perform. Understand Transact-SQL syntax and programming logic. Have some experience with professional-level database design and know the tradeoffs when backing out of the fully normalized design (denormalization) and designing for performance and business requirements, in addition to being familiar with design models such as Star and Snowflake schemas. Have basic monitoring and troubleshooting skills. Specifically, how to use SQL Profiler and dynamic management views. Have basic knowledge of the operating system and platform. That is, how the operating system integrates with the database, what the platform or operating system can do, and how interaction between the operating system and the database works. Have basic knowledge of application architecture. That is, how applications can be designed in three layers, what applications can do, how interaction between the application and the database works, and how the interaction between the database and the platform or operating system works. Know how to use a data modeling tool. Be familiar with SQL Server 2005 features, tools, and technologies. Have a Microsoft Certified Technology Specialist: Microsoft SQL Server 2005 credential, or equivalent experience. In addition, it is recommended, but not required, that students have completed: Course SST9/2778: Writing Queries Using Microsoft SQL Server 2005 Transact-SQL. Course S9IM/2779: Implementing a Microsoft SQL Server 2005 Database. Course S9MA/2780: Maintaining a Microsoft SQL Server 2005 Database.
Teilnehmerkreis	This clinic is intended for current professional database developers who have three or more years of on-the-job experience developing SQL Server database solutions in an enterprise environment.
Unterlagen	Original Microsoft Kursunterlagen
Folgekurse	
Inhalt	<ul style="list-style-type: none"> - Choosing Data Access Technologies and an Object Model - Introduction to Data Access Technologies - Choosing Technologies for Accessing Data

- Building a Data Access Layer
- Designing Data Access from SQL Common Language Runtime (CLR) Objects
- Available Data Object Models for Administering SQL Server

- Designing an Exception Handling Strategy
- Exception Types and Their Purposes
- Detecting Exceptions
- Managing Exceptions

- Choosing a Cursor Strategy
- Common Scenarios for Row-Based vs. Set-Based Operations
- Selecting Appropriate Server-Side Cursors
- Selecting Appropriate Client-Side Cursors

- Designing Query Strategies Using Multiple Active Result Sets
- Introduction to MARS
- Designing Query Strategies for Multiple Reads
- Designing Query Strategies for Mixing Reads and Writes in the Same Connection
- Concurrency Considerations When Using MARS

- Designing Caching Strategies for Database Applications
- Why Caching Is Important
- Data and Query Caching in SQL Server 2005
- Using Caching Technologies Outside of SQL Server
- Custom Caching Techniques

- Designing a Scalable Data Tier for Database Applications
- Identifying the Need to Scale
- Scaling Database Applications to Avoid Concurrency Contention
- Scaling SQL Server Database Systems
- Scaling Database Applications Using a Service-Oriented Architecture
- Improving Availability and Scalability by Scaling Out Front-End Systems

Beitrag

Der Teilnehmerbeitrag versteht sich rein netto. Das ZFI ist (gemäss MwSt-Gesetz) nicht Mehrwertsteuerpflichtig und erhebt somit keine MwSt. Bei länger als einen Monat dauernden Lehrgängen ist die Zahlung des Teilnehmerbeitrages in mehreren Raten möglich (pro rata temporis).