

-Dokumentation



Zentrum für Informatik ZFI AG

Designing Microsoft SQL Server 2005 Databases

(S9DB) - IT Ausbildung nach Mass

<http://www.zfi.ch/S9DB>

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**Zentrum für Informatik ZFI AG
Zentralsekretariat
Technoparkstrasse 1
CH-8005 Zürich
Telefon: 044 732 40 00
Telefax: 044 732 40 09**

Zürich, Basel, Bern, Zürich, Schweiz

Titel	Designing Microsoft SQL Server 2005 Databases
Untertitel	SQL-Server-Datenbank-Entwurf für DB-Profis
Einleitung	In diesem ZFI/Microsoft-Kurs werden die Grundkenntnisse vermittelt, um professionelle Datenbanken mit dem Microsoft SQL Server 2005 zu entwerfen. Es wird zunächst gezeigt, wie man über die verschiedenen Entwurfsphasen vom konzeptionellen Modell zum logischen und physischen Modell der Datenbank kommt. Darüber hinaus werden Fragen der Leistungsfähigkeit (Performance), der Skalierbarkeit, der Zugriffsarten, Abhängigkeiten und der Sicherheit behandelt.
Ihr Nutzen	After completing this course, students will be able to: Approach database design from a systematic perspective, gather database requirements, and formulate a conceptual design. Analyze and evaluate a logical database design. Apply best practices for creating a physical database design. Apply best practices when designing for database scalability. Design a database access strategy. Use best practices to model database dependencies.
Voraussetzungen	Before attending this course, students must: Have experience reading user requirements and business-need documents. For example, development project vision/mission statements or business analysis reports. Have experience reading and drawing business process flow charts. Have experience reading and drawing entity relationship (ER) diagrams. Understand Transact-SQL syntax and programming logic. Be able to design a database to 3NF 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. 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 course 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"> - Approaching Database Design Systematically - Overview of Database Design - Gathering Database Requirements

- **Creating a Conceptual Database Design**
- **Lab: Beginning the Database Design Process**

- **Modeling a Database at the Logical Level**
- **Building a Logical Database Model**
- **Designing for OLTP Activity**
- **Designing for Data Warehousing**
- **Evaluating Logical Models**
- **Lab: Modeling a Database at the Logical Level**

- **Modeling a Database at the Physical Level**
- **Designing Physical Database Objects**
- **Designing Constraints**
- **Designing for Database Security**
- **Designing Server and Database Options**
- **Evaluating the Physical Model**
- **Lab: Modeling a Database at the Physical Level**

- **Designing for Database Performance**
- **Designing Indexes**
- **Planning for Table Optimization**
- **Planning for Database Optimization**
- **Lab: Designing for Database Scalability**

- **Designing a Database Access Strategy**
- **Designing for Secure Data Access**
- **Designing User-Defined Functions**
- **Designing Stored Procedures**
- **Lab: Designing a Database Access Strategy**

- **Modeling Database Dependencies**
- **Modeling Local Database Dependencies**
- **Modeling Remote Database Dependencies**
- **Lab: Modeling Database Dependencies**

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).