MICROSOFT
EDUCATION
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Implementing a Database Design on Microsoft® SQL Server™ 6.5

Student Workbook

Course Number: 750

Part Number: 6477(D)
Master Part Number: 6477D
Released: 9/96

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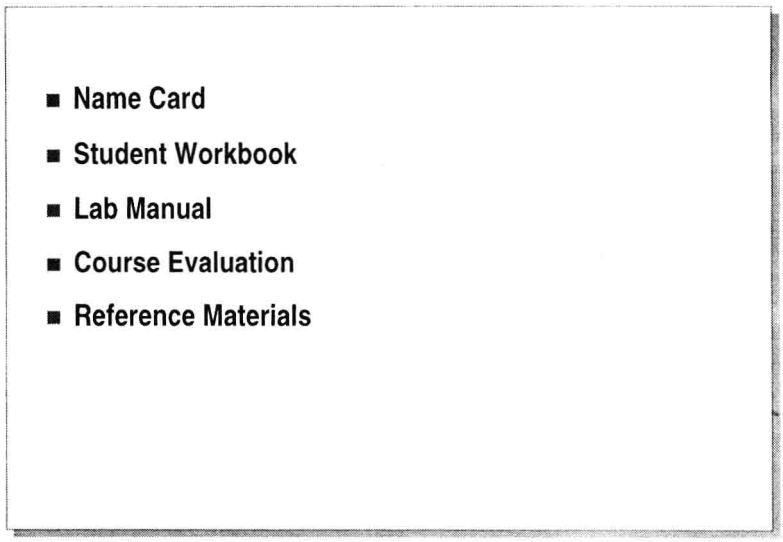
Contents

Introduction

Introductions

- Name
- Company Affiliation
- Title/Function
- Job Responsibility
- Programming, Database, and Microsoft Windows NT Experience
- Microsoft SQL Server Experience
- Expectations

Course Materials



Name Card

Write your name on both sides of the name card so that students in front of you and in back of you will know who you are.

Student Workbook

The student workbook contains the slide graphics and text covered during lectures. This workbook is yours to keep.

Lab Manual

The lab manual contains the hands-on lab exercises and lab answers used during class. This manual is yours to keep.

Course Evaluation

Before class is over, please complete the course evaluation to provide feedback on the instructor, course, and software product. Your comments will help us improve future courses.

Reference Materials

Reference materials, such as product documentation, are for classroom use only. All Microsoft® SQL Server™ 6.5 documentation is provided in the product. By choosing the SQL Server Books Online icon in the Microsoft SQL Server 6.5 (Common) program group you will have access to all product documentation.

Note No video or audio recordings are permitted.

Prerequisites

- **Experience Using the Microsoft Windows NT Server Operating System**
  - Working knowledge of the Windows interface
  - Understanding of basic Microsoft network functions and terminology
- **One Year Experience with Relational Databases**
  - Supported and/or designed a relational database
  - Understand the fundamental concepts of relational database design
- **Three to Six Months Experience with Microsoft SQL Server**
  - Installed at least one SQL server
  - Understand basic ANSI SQL statements
  - Designed relational databases
  - Worked with SQL Server front-end tools

Course Outline

- **Module 1: Implementing a Database Design**
- **Module 2: Defining Data Storage**
- **Module 3: Creating and Managing Databases**
- **Module 4: Retrieving Data**
- **Module 5: Retrieving Data — Advanced Topics**
- **Module 6: Modifying Data**
- **Module 7: Implementing Indexes**

Module 1, "Implementing a Database Design," describes the role of a SQL Server database implementor and defines terminology. Database design is not covered in detail in this module. The purpose of this module is to build the foundation for the rest of the course. The case study used throughout the course is introduced in this module.

Module 2, "Defining Data Storage," discusses the system databases and associated tables.

Module 3, "Creating and Managing Databases," discusses storage issues, and explains how to create a device, a database, and a table.

Module 4, "Retrieving Data," is the first of three modules that cover the Transact-SQL component of SQL Server. This module covers the SELECT statement in detail, using many examples to demonstrate how to retrieve data.

Module 5, "Retrieving Data—Advanced Topics," provides information on using the aggregate functions, as well as data retrieval from multiple tables and databases, using joins and unions. Nested SELECT statements are also covered.

Module 6, "Modifying Data," explains how to use the INSERT, UPDATE, and DELETE statements.

Module 7, "Implementing Indexes," explains the purpose and types of indexes, and how to use indexes in a table.

Course Outline *(continued)*

- **Module 8: Designing Data Integrity**
- **Module 9: Implementing Views, Triggers, and Stored Procedures**
- **Module 10: Programmability**
- **Module 11: Distributed Data Overview**
- **Module 12: Extensibility of SQL Server 6.5**

Module 8, "Designing Data Integrity," focuses on how to maintain data integrity on the server. The different types of constraints, and how they are used to maintain data integrity, are discussed. Defaults and rules are also covered as a secondary method for ensuring data integrity.

Module 9, "Implementing Views, Triggers, and Stored Procedures," explains how to implement and use these features to manipulate data.

Module 10, "Programmability," covers methods for automating database functions using batches and scripts. Transaction management and distributed transactions are discussed along with cursors.

Module 11, "Distributed Data Overview," provides a discussion about what distributed data is and how it is implemented in SQL Server. Topics include two-phase commit, remote stored procedures, ODS, BCP, replication, and the SQL Server Web Assistant.

Module 12, "Extensibility of SQL Server 6.5," finishes the course with a discussion of features that extend a database across an enterprise and between applications. Topics include the SQL Executive Managers, extended stored procedures, Distributed Management Objects (DMO), Mail Application Programming Interface (MAPI), Open Data Services (ODS), Open Database Connectivity (ODBC), and DB-Library.