

#50464A: UNDERSTANDING AND QUERYING RELATIONAL DATA FOR INFORMATION WORKERS USING MICROSOFT SQL SERVER

Available Dates: **Request Dates**

Class Length: **2 day**

Cost: **\$998**

[Email Computer Visions about this class](#)

Class Outline:

Description:

This two-day instructor-led course provides students with the knowledge and skills to query data using Microsoft SQL Server. The course will introduce the concepts of relation databases and how to retrieve, modify, and use SQL Server data. This course is intended for Information Workers who need to use SQL Server data for client applications such as reporting.

Table of Contents:

Module 1: Understanding Relational Databases

This module explains how use relational databases. It explains entities and attributes, and describes relationships.

Lessons

SQL Server and Transact-SQL

Relational Database Concepts

Accessing Relational Data

Lab : Understanding Relational Databases

Identifying Entities, Attributes, and Relationships

After completing this module, students will be able to:

Identify relational database concepts

Explain the first 3 normal forms

Use tools to access SQL Server Data

Module 2: Retrieving Simple Data

This module explains how query SQL Server data using SELECT statements. It also discusses how to format results sets.

Lessons

Simple SELECT Statements

Restricting Rows

Formatting Output

Lab : Writing Simple Queries

Writing SELECT Statements.

Using the WHERE Clause

Formatting Results

After completing this module, students will be able to:

Write basic SELECT statements

Restrict results with the WHERE clause

Use column aliases

Sort results with the ORDER BY clause

Module 3: Complex Data Retrieval

This module explains how to create results sets using joins.

Lessons

Using INNER JOINS

Using OUTER JOINS

Other Methods of Combining Data

Lab : Using Joins

Inner Joins

Outer Joins

Other Types of Joins

After completing this module, students will be able to:

Combine related data using INNER and OUTER JOINS

Use CROSS JOINS and self-joins

Use the UNION operator

Module 4: Summarizing Data

This module explains how summarize data using GROUP BY. It also discusses aggregate functions and the PIVOT and UNPIVOT operator.

Lessons

Using Aggregates

Summarizing Results Sets

Lab : Summarizing Data

Using simple aggregate functions

Using GROUP BY

Using COMPUTE BY

After completing this module, students will be able to:

Understand how to summarize data

Use aggregate functions

Use GROUP BY

Use COMPUTE BY

Module 5: Modifying Data

This module explains how to modify data using INSERT, UPDATE, and DELETE.

Lessons

Inserting Data

Deleting Data

Updating Data

Lab : Data Modification

Using the INSERT Statement

Using the DELETE Statement

Using the UPDATE Statement

After completing this module, students will be able to:

How data modification works

How to modify data with INSERT, UPDATE, and DELETE

Module 6: Using Database Objects

This module explains how to use views, stored procedures, and functions. It also describes their purpose and how to handle parameters and return values.

Lessons

Introduction to Database Objects

Using Views

Calling Stored Procedures

Using Functions

Lab : Using Database Objects

Using Views

Using Stored Procedures

Using Functions

After completing this module, students will be able to:

Create and use views

Call stored procedures

Pass parameters into stored procedures and use output parameters

Return data from functions

Module 7: Advanced Queries

This module explains how to use conditional logic, transactions, and error handling.

Lessons

Using Conditional Logic

Handling Errors

Using Transactions

Lab : Creating Advanced Queries

Use Conditional Logic

Create Transactions

After completing this module, students will be able to:

Use CASE and IF logic

Use TRY/CATCH logic to handle errors
Use transaction to maintain data integrity

Module 8: Accessing Data with Microsoft Office 2007

This module explains how to work with SQL Server Data in Excel, Word, and Access.

Lessons

Using Data with Microsoft Excel 2007

Using Data with Microsoft Access 2007

Using Data with Microsoft Word 2007 (Optional)

Lab : Accessing Data with Microsoft Office

Import SQL Server Data into Excel 2007

Link to SQL Server Tables from Access 2007

Do a Mail Merge Using Word 2007 (Optional)

After completing this module, students will be able to:

Import data into Microsoft Excel 2007

Use Microsoft Access 2007 to create reports from SQL Server data

Perform a Mail Merge from Microsoft Word 2007 using SQL Server data