

SQL Developer Training Program

Introduction/Summary: This 5-day course focuses on understanding and developing various skills required by SQL Developer. Theoretical and practical content from numerous topical areas is covered in this course. This is a comprehensive and intensive course with plenty of illustrated examples and augmented with practical hands-on exercises.

Training Type: Online training/Classroom training

Audience: This course is intended for anyone who is from Computer Science background or interested in learning about SQL.

Duration: 40 hrs

Training Timings: At this point all courses will be Weekend or Weekdays depending upon the availability of the Trainer. We are going to schedule some orientation sessions (depending upon how many people want to attend) and first class is always free.

Faculty:

- Landmark has a pool of highly experienced working professionals who serves as faculty. They have years of real industry experience.
- Candidates are always welcome to speak to faculty.
- We have 4 Full Time Trainers with our Company who are available for consultation.
- We have a Training Manager who will guide you in every way and our Training Manager will discuss with you on the best possible Options based on current market conditions.

Approach: Instructor-led participative lecture with group exercises.

Cost: This training programme is absolutely **free**.

Accommodation: If needed, Accommodation will be provided to the trainees. Advance refundable deposit of \$1000.00 required.

During And After Training Period Landmark Technologies:

- During the training period we help updating your profile.
- After training you will be placed with our client companies which include Fortune 1000 companies.
- Once you are placed on project you will be paid competitive salary. Percentage option offered after 1 year.
- Landmark Technologies, Inc. also will cover cost of your insurance package on salary option.
- Salary review after every 6 months, Paid Leaves, Authorized Overtime, Performance Pay, Green Card sponsorship depending on your performance.

Referral Fee: Referral fee of \$500/trainee, paid on placement.

Objectives:

- Use SQL Server Management Studio
- Understand the Syntax of Transact-SQL
- Retrieve, Filter and Sort Data
- Query Data from Multiple Tables by Using Joins
- Summarize and Rank Grouped Data
- Combine and Limit Result Sets
- Work with sub-queries
- Use Cross-tab Queries
- Use Common Table Expressions
- Understand Transactions
- Modify Data
- Query XML Data
- Query Full Text Indexes
- Query Metadata
- Run Distributed Queries
- Understand how to Use Other Programmable Objects
- Handle Errors Gracefully

Course Content:

Outline Module 1: Overview of Programming SQL Server

This module provides students with an overview of enterprise-level application architecture and of Transact-SQL as a programming language. Transact-SQL is a data definition, manipulation, and control language. Students are assumed to be familiar with ANSI-SQL and basic programming concepts, such as functions, operators, variables, and control-of-flow statements. Students will also learn the different ways to execute Transact-SQL.

Module 2: Creating and Managing Databases

This module describes how to create a database, set database options, create file groups, and manage a database and the transaction log. It reviews disk space allocation and how the transaction log records data modifications.

Module 3: Creating Data Types and Tables

This module describes how to create data types and tables and generate Transact-SQL scripts containing statements that create a database and its objects

Module 4: Implementing Data Integrity

This module shows how centrally-managed data integrity is a benefit of relational databases. Beginning with an introduction to data integrity concepts, including the methods available for enforcing data integrity, the module then introduces a section on constraints, the key method of ensuring data integrity. The module discusses the creation, implementation, and disabling of

constraints and discusses how defaults and rules are an alternate way to enforce data integrity. The module concludes by comparing different data integrity methods.

Module 5: Planning Indexes

This module provides students with an overview of planning indexes. It explains how database performance can be improved with indexes; how clustered and non-clustered indexes are stored in SQL Server and how SQL Server retrieves rows by using indexes; and explores how SQL Server maintains indexes. The module concludes with guidelines for deciding which columns to index.

Module 6: Creating and Maintaining Indexes

This module provides students with an overview of using the CREATE INDEX options to create and maintain indexes. It describes how maintenance procedures physically change the indexes; discusses maintenance tools; describes the use of statistics in SQL Server; and describes ways to verify that indexes are used and whether they perform optimally. The module concludes with a discussion of when to use the Index Tuning Wizard.

Module 7: Implementing Views

This module defines views and their advantages, showing how views provide the ability to store a predefined query as an object in the database for later use. Views also offer a convenient way to hide sensitive data and the complexities of a database design and to provide a set of information without requiring the user to write or execute Transact-SQL statements. The module describes creating views and provides examples of how to include computed columns and built-in functions in the view definitions. The module then covers restrictions on modifying data through views. The last section discusses how views can improve performance.

Module 8: Implementing Stored Procedures

This module describes how to use stored procedures to improve application design and performance by encapsulating business rules. It discusses ways to process common queries and data modifications, and provides numerous examples and demonstrations of stored procedures.

Module 9: Implementing User-Defined Functions

This module discusses the implementation of user-defined functions. It explains the three types of user-defined functions and the general syntax for creating and altering them, and provides an example of each type.

Module 10: Implementing Triggers

This module shows that triggers are useful tools for database implementers who want certain actions to be performed whenever data is inserted, updated, or deleted from a specific table. Triggers are especially useful tools for cascading changes throughout other tables in the database while preserving complex referential integrity.

Module 11: Programming Across Multiple Servers

This module provides students with information on how to design security for a multi-server environment. It also explains the construction of distributed queries, distributed transactions, and partitioned views.

Module 12: Optimizing Query Performance

This module provides students with an in-depth look at how the query optimizer works, how to obtain query plan information, and how to implement indexing strategies.

Module 13: Performing Advance Query Analysis

This module describes how the query optimizer evaluates and processes queries that contain the AND operator, the OR operator, and join operations.

Module 14: Managing Transactions and Locks

This module discusses how transactions and locks ensure transaction integrity to accommodate multiple users. The module continues with a discussion of how transactions are executed and rolled back. A short animation helps to convey how transaction processing works. The module next describes how SQL Server locks maintain data consistency and concurrency. The module then introduces resources that can be locked, the different types of locks, and lock compatibility. A discussion follows on SQL Server dynamic locking based on schema and query. The final section describes locking options, discusses deadlocks, and explains how to display information on active locks.

Contact Us:

Landmark Technologies, Inc.
421 7th Avenue, Suite 1007
New York, NY 1001
Phone: (212) 863 9741
Fax: (212) 504 8320
training@landmark-technologies.com