

Course Outline



Tel: +44 (0) 118 979 4000 Fax: +44 (0) 118 979 4000

Email: training@ptr.co.uk Web: www.ptr.co.uk

SQL Server 2000: Administration

Course Description:

This course teaches you how to install, configure, administer, and troubleshoot Microsoft SQL Server 2000 in a Windows 2000 Server environment. This course also assists you in preparing for the Microsoft Certified Systems Engineer and Microsoft Certified Database Administrator Exam #70-228, Installing, Configuring, and Administering Microsoft SQL Server 2000 Enterprise Edition.

Pre-requisites:

To ensure your success, we recommend you first take either the Windows 2000 for Windows NT Administrators: or have equivalent knowledge.

Course Content:

- **Introduction to Microsoft SQL Server**
- Exploring the Components of SQL Server
- Exploring the Features of Microsoft SQL Server
- Identifying the Default Databases and System Tables
- Understanding the SQL Server Architecture
- Administering SQL Server
- Identifying Administrative Utilities

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- **Installing SQL Server**
 - Identifying the Requirements for Installing SQL Server
 - Choosing the Hardware and Software for SQL Server 2000
 - Selecting Your Servers Hardware
 - Identifying Where to Install SQL Server
 - Choosing Installation Options for SQL Server
 - Installing SQL Server
 - Creating and Configuring a Service Account for SQL Server
 - Performing Unattended Installations
 - Using the SQL Server Service Manager to Manage the SQL Services
 - Exploring the SQL Server Installation
 - Starting SQL Server Enterprise Manager
 - Viewing the System Databases Within SQL Server Enterprise Manager
 - Creating and Working with a Database Diagram
 - Using SQL Server Enterprise Manager to Configure Your Server
 - Troubleshooting the SQL Server Installation
 - Testing the SQL Server Installation
 - Viewing the SQL Server Log

- **Designing & Implementing Databases**
 - Developing a Strategy for Implementing Databases
 - Discussing SQL Server Terminology
 - Identifying the Space Requirements for Databases
 - Viewing Space Statistics
 - Optimizing Database Performance
 - Creating Databases
 - Using Transact-SQL to Create a New Database

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Registered Office: Grenville Court Britwell Road Burnham Bucks SL1 8DF Company Registered No: 2442290 – VAT registration No:532 1929 56

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- **Designing & Implementing Databases**
 - Using SQL Server Enterprise Manager to Create a New Database
 - Changing the Default File group
 - Using SQL Server Enterprise Manager to Configure a Database
 - Using Stored Procedures to View Database Information
 - Managing Databases
 - Configuring SQL Server to Automatically Expand a Database
 - Manually Expanding a Database and its Transaction Log
 - Configuring SQL Server to Automatically Shrink a Database File
 - Deleting a Database

- **Creating & Managing Tables**
 - Creating Tables
 - Designing Tables
 - Choosing Data Types for a Table
 - Identifying the Role of Constraints in a Table
 - Using SQL Server Enterprise Manager to Create a Table
 - Modifying the Structure of a Table
 - Using Transact-SQL to Work with Tables
 - Using the INSERT Statement to Add Rows to a Table
 - Using the UPDATE Statement
 - Using the DELETE Statement
 - Formatting Columns in a Query

- **Designing & Configuring SQL Server Security**
 - Identifying the Security Features of SQL Server
 - Identifying the SQL Server Security Components
 - Configuring Your Servers Authentication Mode
 - Configuring Encryption

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- **Designing & Configuring SQL Server Security**
 - Creating Login Accounts
 - Creating a Login Account for a Windows Account
 - Denying Login Privileges
 - Creating and Testing a SQL Server Login Account
 - Assigning Login Accounts to Server Roles

 - Assigning Login Accounts as Database Users
 - Assigning a Login Account as a Database User in SQL Server Enterprise Manager
 - Adding a Database User to a Database Role
 - Creating a User-defined Database Role
 - Implementing Statement and Object Permissions
 - Comparing Permission Types
 - Granting Statement Permissions
 - Granting Object Permissions
 - Denying Statement Permissions
 - Denying Object Permissions
 - Revoking Statement and Object Permissions
 - Creating and Using an Application Role
 - Creating and Using a View
 - Defining Linked Servers
 - Defining a Linked Server
 - Configuring Linked Server Security

- **Importing and Exporting Data**
 - Introduction to Data Transfer
 - Comparing the Data Transfer Utilities
 - Creating a DTS Package by Using the DTS Import/Export Wizard
 - Using DTS Designer to Modify a Package
 - Bulk Data Transfers

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- **Importing and Exporting Data**
 - Using bcp to generate a Transfer File
 - Using bcp to Import a Transfer File
 - Configuring XML Support
 - Creating a Virtual Directory for SQL Server
 - Running a URL Query

- **Backing Up SQL Server Databases**
 - Planning Backups
 - Planning to Back Up Your Server
 - Reviewing the Backup Process
 - Backing Up Databases
 - Performing a Backup
 - Creating a Permanent Backup Device
 - Performing a Backup of the Master Database to a PermanentBackup Device
 - Performing a Parallel Backup of the Class_mgr Database
 - Performing a Filegroup Backup
 - Scheduling an Automatic Backup of the Msdb Database
 - Designing Your Backup Strategy

- **Restoring SQL Server Databases**
 - Restoring User-defined Databases
 - Observing an Automatic Recovery
 - Reviewing User-initiated Database Recovery
 - Creating Tables and Backing Up
 - Simulating a Failed Database
 - Restoring the Class_mgr Database
 - Recovering System Databases
 - Simulating a Master Database Failure
 - Instructor Demo: Removing the Read-only Attribute From the SQL Server Installation Files
 - Restoring the Master Database

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- **Automating SQL Server Administration**
 - Configuring SQL Server to Send Mail
 - Verifying the Configuration of the SQL Server Agent Service
 - Instructor Demo: Configuring a Mailbox for the SQL Server Service Account
 - Creating a Mail Profile
 - Configuring SQL Agent Mail
 - Configuring the SQL Server Service to Send and Receive Mail
 - Using SQL Mail to Send Query Results
 - Defining SQL Operators
 - Using SQL Server Enterprise Manager to Define Operators
 - Specifying a Fail-Safe Operator
 - Managing Jobs
 - Creating a Job
 - Viewing Job History Information
 - Manually Running a Job
 - Running the Database Maintenance Plan Wizard
 - Managing Alerts
 - Creating an Alert
 - Configuring Event Forwarding
 - Troubleshooting Alerts

- **Designing, Configuring, and Managing Replication**
 - Introduction to Replication
 - Identifying Publishable Information
 - Choosing a Replication Model
 - Choosing a Replication Strategy
 - Configuring Replication
 - Configuring a Publisher/Distributor
 - Configuring Distributor and Publisher Properties
 - Creating a Publication

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- **Designing, Configuring, and Managing Replication**
 - Modifying a Publication
 - Configuring a Pull Subscription
 - Creating an Initial Snapshot for a Publication
 - Monitoring and Maintaining Replication
 - Using the Replication Monitor
 - Maintaining the Distribution Database
 - Creating Replication Scripts in SQL Server Enterprise Manager
 - Troubleshooting Replication
 - Examining Replication Information in the Error Logs
- **Implementing Fault Tolerance**
 - Configuring Fault Tolerance in SQL Server 2000
 - Exploring Clustering
- **Monitoring SQL Server**
 - Designing a Strategy for Monitoring SQL Server
 - Discussing Server Optimization and Monitoring Techniques
 - Identifying the Factors That Affect the Performance of SQL Server
 - Using Monitoring Tools
 - Observing Your Servers Current Activity
 - Using SQL Statements and SQL Server Enterprise Manager to Monitor Your Server
 - Using SQL Server Profiler
 - Using SQL Query Analyzer to Monitor a Query
 - Choosing a Monitoring Tool

Course Duration:

5 Days

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