

DIPLOMADO EN BASE DE DATOS

OBJETIVOS

Preparan al Estudiante en el uso de las tecnologías de base de datos OLTP y OLAP, con conocimientos generales en todas las bases de datos y especialización en SQL server de Microsoft

REQUISITOS DE ADMISION

- Tener acceso a Internet y una cuenta de correo electrónico.
- Llenar Boleta de Inscripción y efectuar los pagos correspondientes.
- Fotocopia autenticada de título a Nivel Medio, registrado en la Contraloría de Cuentas
- Fotocopia autenticada de DPI

METODOLOGIA

- Cada módulo se ofrece en 10 semanas. Se imparten 3 horas por semana.

Los cursos son presénciales con apoyo virtual. La participación del estudiante es decisiva y se espera una muy buena inversión de su tiempo para prepararse.

HORARIOS:

Miércoles de 18:00 a 21:00 horas

Sábados de 9:00 a.m. a 12:00 p.m.

Inicio de clases 15 de enero 2014

Preinscripciones abiertas a partir del 16 de noviembre 2013

INVERSION

Inscripción:	Q.500.00 por trimestre
Carnet:	Q.50.00 por año
Servicios Electrónicos:	Q.50.00 (3 cuotas por trimestre)
Seguro por accidentes:	Q.30.00 por trimestre
Cuotas:	Q.500.00 (3 cuotas por trimestre)
Manual Opcional:	Q.800.00 (un solo pago de contado)

IMPARTIDO POR

Nuestros catedráticos cuentan con gran experiencia en el campo en el que se desarrollan, además de su reconocida trayectoria como MCT.

CONTENIDO GENERAL

- Introducción a Transact, primer trimestre
- Administración de SQL, segundo trimestre
- Implementación de SQL Server, tercer trimestre
- Análisis Services, cuarto trimestre

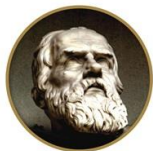


Learning Solutions



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Primer Trimestre

Module 1: Getting Started with Databases and Transact-SQL in SQL Server 2012

Lesson 1: Overview of SQL Server 2012
Lesson 2: Overview of SQL Server Databases
Lesson 3: Overview and Syntax Elements of T-SQL
Lesson 4: Working with T-SQL Scripts
Lesson 5: Using T-SQL Querying Tools
Lab: Using SQL Server Management Studio and SQLCMD

Module 2: Querying and Filtering Data

Lesson 1: Using the SELECT Statement
Lesson 2: Filtering Data
Lesson 3: Working with NULL Values
Lesson 4: Formatting Result Sets
Lesson 5: Performance Considerations for Writing Queries
Lab: Performing Basic Queries

Module 3: Grouping and Summarizing Data

Lesson 1: Summarizing Data by Using Aggregate Functions
Lesson 2: Summarizing Grouped Data
Lesson 3: Ranking Grouped Data
Lesson 4: Creating Crosstab Queries
Lab: Grouping and Summarizing Data

Module 4: Joining Data from Multiple Tables

Lesson 1: Querying Multiple Tables by Using Joins
Lesson 2: Applying Joins for Typical Reporting Needs
Lesson 3: Combining and Limiting Result Sets
Lab: Joining Data from Multiple Tables

Module 5: Working with Subqueries

Lesson 1: Writing Basic Subqueries
Lesson 2: Writing Correlated Subqueries
Lesson 3: Comparing Subqueries with Joins and Temporary Tables
Lesson 4: Using Common Table Expressions
Lab: Working with Subqueries

Module 6: Modifying Data in Tables

Lesson 1: Inserting Data into Tables
Lesson 2: Deleting Data from Tables
Lesson 3: Update Data in Tables
Lesson 4: Overview of Transactions
Lab: Modifying Data

Module 7: Querying Metadata, XML, and Full-Text Indexes

Lesson 1: Querying Metadata
Lesson 2: Overview of XML
Lesson 3: Querying XML Data
Lesson 4: Overview of Full-Text Indexes
Lesson 5: Querying Full-Text Indexes
Lab: Querying Metadata, XML, and Full-Text Indexes

Module 8: Using Programming Objects for Data Retrieval

Lesson 1: Overview of Views
Lesson 2: Overview of User-Defined Functions
Lesson 3: Overview of Stored Procedures
Lesson 4: Overview of Triggers
Lesson 5: Writing Distributed Queries
Lab: Using Programming Objects for Data Retrieval

Module 9: Using Advanced Techniques

Lesson 1: Considerations for Querying Data
Lesson 2: Working with Data Types
Lesson 3: Cursors and Set-Based Queries
Lesson 4: Dynamic SQL
Lesson 5: Maintaining Query Files
Lab: Using Advanced Techniques

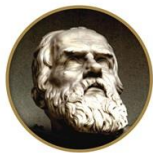


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Segundo Trimestre

Module 1: Installing and Configuring SQL Server 2012

Lesson 1: Preparing to Install SQL Server 2012

Lesson 2: Installing SQL Server 2012

Lesson 3: Configuring a SQL Server 2012 Installation

Lab: Installing and Configuring SQL Server 2012

Module 2: Managing Databases and Files

Lesson 1: Planning Databases

Lesson 2: Creating Databases

Lesson 3: Using Policy-Based Management

Lab: Managing Databases and Files

Module 3: Disaster Recovery

Lesson 1: Planning a Database Backup Strategy

Lesson 2: Backing Up User Databases

Lab: Disaster Recovery

Lesson 3: Restoring User Databases

Lesson 4: Performing Online Restore Operations

Lesson 5: Recovering Data from Database Snapshots

Lesson 6: System Databases and Disaster Recovery

Lab: Disaster Recovery

Module 4: Managing Security

Lesson 1: Overview of SQL Server Security

Lesson 2: Protecting the Server Scope

Lesson 3: Protecting the Database Scope

Lesson 4: Managing Keys and Certificates

Lesson 5: Auditing Security

Lab: Managing Security

Module 5: Transferring Data

Lesson 1: Overview of Data Transfer

Lesson 2: Introduction to SQL Server Integration Services

Lab: Transferring Data

Module 6: Automating Administrative Tasks

Lesson 1: Automating Administrative Tasks in SQL Server 2012

Lesson 2: Using SQL Server Agent

Lesson 3: Creating Maintenance Plans

Lesson 4: Implementing Alerts

Lesson 5: Managing Multiple Servers

Lesson 6: Managing SQL Server Agent Security

Lab: Automating Administrative Tasks

Module 7: Implementing Replication

Lesson 1: Overview of Replication

Lesson 2: Managing Publications and Subscriptions

Lesson 3: Configuring Replication in Some Common Scenarios

Lab: Implementing Replication

Module 8: Maintaining High Availability

Lesson 1: Introduction to High Availability

Lesson 2: Implementing Log Shipping

Lesson 3: Implementing Database Mirroring

Lesson 4: Implementing Server Clustering

Lesson 5: Using Distributed High Availability Solutions

Lab: Maintaining High Availability

Module 9: Monitoring SQL Server

Lesson 1: Viewing Current Activity

Lesson 2: Using SQL Server Profiler

Lesson 3: Monitoring with DDL Triggers

Lesson 4: Using Event Notifications

Lab: Monitoring SQL Server

Module 10: Troubleshooting and Performance Tuning

Lesson 1: Troubleshooting SQL Server

Lesson 2: Performance Tuning in SQL Server

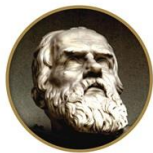


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Lesson 3: Using Resource Governor

Lesson 4: Using Data Collector

Tercer Trimestre

Module 1: Creating Databases and Database Files

Lesson 1: Creating Databases

Lesson 2: Creating Filegroups

Lesson 3: Creating Schemas

Lesson 4: Creating Database Snapshots

Lab: Creating Databases and Database Files

Module 2: Creating Data Types and Tables

Lesson 1: Creating Data Types

Lesson 2: Creating Tables

Lesson 3: Creating Partitioned Tables

Lab: Creating Data Types and Tables

Module 3: Creating and Tuning Indexes

Lesson 1: Planning Indexes

Lesson 2: Creating Indexes

Lesson 3: Optimizing Indexes

Lab: Creating and Optimizing Indexes

Module 4: Implementing Data Integrity by Using Constraints and Triggers

Lesson 1: Data Integrity Overview

Lesson 2: Implementing Constraints

Lesson 3: Implementing Triggers

Lab: Implementing Data Integrity by Using Constraints and Triggers

Module 5: Using XML

Lesson 1: Using the XML Data Type

Lesson 2: Retrieving XML by Using FOR XML

Lesson 3: Shredding XML by Using OPENXML

Lab 5A: Using XML

Lesson 4: Introducing XQuery

Lesson 5: Creating XML Indexes

Lesson 6: Implementing XML Schemas

Lab 5B: Using XML

Module 6: Implementing Views

Lesson 1: Introduction to Views

Lesson 2: Creating and Managing Views

Lesson 3: Optimizing Performance by Using Views

Lab: Implementing Views

Module 7: Implementing Stored Procedures

Lesson 1: Using Stored Procedures

Lesson 2: Creating Parameterized Stored Procedures

Lesson 3: Working with Execution Plans

Lesson 4: Handling Exceptions

Lab: Implementing Stored Procedures

Module 8: Implementing Functions

Lesson 1: Introducing Functions

Lesson 2: Working with Functions

Lesson 3: Controlling Execution Context

Lab: Implementing Functions

Module 9: Implementing Managed Code in a Database

Lesson 1: Introduction to the SQL Server® Common Language Runtime

Lesson 2: Importing and Configuring Assemblies

Lesson 3: Creating Managed Database Objects

Lab: Implementing Managed Code in a Database

Module 10: Managing Transactions and Locks

Lesson 1: Overview of Transactions and Locks

Lesson 2: Managing Transactions

Lesson 3: Understanding SQL Server Locking Architecture

Lesson 4: Managing Locks

Lab: Managing Transactions and Locks

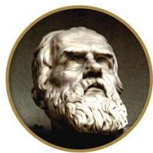


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Module 11: Using Service Broker

Lesson 1: Service Broker Overview

Lesson 2: Creating Service Broker Objects

Lesson 3: Sending and Receiving Messages

Lab: Using Service Broker

Cuarto Trimestre

Module 1: Introduction to Microsoft SQL Server Analysis Services

Lesson 1: Overview of Data Analysis Solutions

Lesson 2: Overview of SQL Server Analysis Services

Lesson 3: Installing SQL Server Analysis Services

Lab: Installing and Verifying SQL Server Analysis Services

Module 2: Creating Multidimensional Analysis Solutions

Lesson 1: Developing Analysis Services Solutions

Lesson 2: Creating Data Sources and Data Source Views

Lesson 3: Creating a Cube

Lab: Creating a Multidimensional Analysis Solution

Module 3: Working with Cubes and Dimensions

Lesson 1: Configuring Dimensions

Lesson 2: Defining Attribute Hierarchies

Lesson 3: Sorting and Grouping Attributes

Lab: Defining Dimensions

Module 4: Working with Measures and Measure Groups

Lesson 1: Working with Measures

Lesson 2: Working with Measure Groups

Lab: Configuring Measures and Measure Groups

Module 5: Querying Multidimensional Analysis Solutions

Lesson 1: MDX Fundamentals

Lesson 2: Adding Calculations to a Cube

Lab: Querying a Cube

Module 6: Customizing Cube Functionality

Lesson 1: Working with Key Performance Indicators

Lesson 2: Working with Actions

Lesson 3: Working with Perspectives

Lesson 4: Working with Translations

Lab: Customizing a Cube

Module 7: Deploying and Securing an Analysis Services Database

Lesson 1: Deploying an Analysis Services Database

Lesson 2: Securing an Analysis Services Database

Lab: Deploying and Securing an Analysis Services Database

Module 8: Maintaining a Multidimensional Solution

Lesson 1: Configuring Processing Settings

Lesson 2: Logging, Monitoring, and Optimizing an Analysis Services Solution

Lesson 3: Backing Up and Restoring an Analysis Services Database

Lab: Maintaining an Analysis Services Database

Module 9: Introduction to Data Mining

Lesson 1: Overview of Data Mining

Lesson 2: Creating a Data Mining Solution

Lesson 3: Validating Data Mining Models

Lab: Implementing Data Mining



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