
Microsoft Technology Associate (98-364) Database Administration Fundamentals

This course is for those who are new to relational databases. This course contains basic idea of database and its real-world usage, core tasks in Microsoft SQL Server itself.

Mode: Classroom

Duration: 40hours

Technology: Microsoft SQL Server 2008

Level: Beginner

Pre-requisite: NA

Course Outline:-

Overview of MTA DBA Fundamentals exam (98-364)

Introduction

- What's a Database?
- Different types of database

Relational Database Concepts

- Introduction
- Concepts of DBMS
- Relational Database Systems
- Tables, Rows, and Columns
- Indexes
- Storage: Pages and Physical Files

Introduction to Microsoft SQL server

- Introductions
- Sql server 2008 editions
- Sql server 2008 requirements
- Downloading sql software
- Selecting installation options
- Installing a named instance
- Sql server installation center overview
- Lunching SQL server management studio

Management Studio

- Introduction
- Working with queries

Keys and Constraints

- Introduction
- Primary Keys
- Foreign Keys and Composite Keys
- Understanding Constraints

Data Definition Language (DDL)

- Creation of table
- Modifying the structure of a table
- Dropping a table
- Working with different options

Data Manipulation Language (DML)

- Inserting, updating & deleting operations
- Operators, Built-in functions, grouping

Basic Queries

- Introduction
- SELECT...FROM
- WHERE
- GROUP BY
- ORDER BY

Special Condition in Query

- Introduction
- Operators
- Combining Conditions
- IN
- LIKE
- BETWEEN
- UNION
- EXCEPT and INTERSECT

Database Normalization

- What is Normalization?
- 1NF: Eliminate Repeating Groups
- 2NF: Eliminate Redundant Data
- 3NF: Eliminate Non-Dependent Columns
- De-normalization

Implementing Views

- Introduction
- Creating views
- Altering, dropping views
- Table vs view

Joins

- Introduction to Joins
- Inner join
- Outer join
- Cross joins
- Unions

Implementing stored procedures

- Introduction to stored procedures
- Creating, executing, modifying, dropping stored procedures
- Executing extended stored procedures

Working with Indexes

- Introduction to indexes
- Clustered & non clustered indexes
- Creating, dropping indexes
- Index Maintenance Concepts

Sql server security

- Introduction
- Windows vs. SQL Security
- Object Permissions
- Ownership Chains

Backup

- Introduction to backups
- Backup devices
- Recovery

Database Maintenance

- Introduction
- Backup plan