

## MS SQL – 2005

### Getting Started with SQL Server 2005

#### Components

- Services
- Editions
- System and user databases

#### Essential tools

- SQL Server Management Studio
- Transact-SQL
- Surface Area Configuration
- SQL Server Configuration Manager

### Installing SQL Server

#### SQL Server 2005 installation

- Choosing installation options
- Employing multiple instances
- Upgrading from previous versions
- Applying a Service Pack

### Managing Databases

#### Disk structures

- Examining storage structures
- Creating databases and transaction logs

#### Space management strategies

- Handling dynamic database growth
- Reclaiming unused space

#### Moving databases

- Detaching and attaching databases
- Copying databases with the Copy Database Wizard

### Controlling Server and Database Security

#### Login security

- Contrasting Windows and SQL Server authentications
- Authorizing logins
- Making logins members of server roles
- Enforcing password policy

#### Database security

- Designing schemas
- Adding users
- Defining new roles
- Delegating privileges with pre-defined roles
- Assigning users to roles

#### Permissions

- Granting server, database, schema-scoped and object permissions
- Interaction of roles and permissions

## **Migrating Data**

### **SQL Server Integration Services**

- Packages
- Control flows
- Data flows
- Connections
- Business Intelligence Development Studio

### **Building simple packages**

- Importing data from Access
- Exporting a table to Excel

## **Backup and Recovery**

### **Planning for and recovering from disasters**

- Transaction log architecture
- Choosing a recovery model
- Performing full, log and differential backups
- Recovering system and user databases

### **Implementing database mirroring**

- Selecting a mirroring architecture
- Configuring the mirror and witness servers
- Monitoring database mirroring
- Taking a snapshot of the mirror

## **Automating Tasks with Jobs and Alerts**

### **The SQL Server Agent**

- Configuring the Agent
- Setting up Database Mail

### **Multistep jobs**

- Defining jobs to handle routine tasks
- Creating alerts and operators
- Associating alerts with jobs

## **Deploying Replication**

### **Replication concepts**

- Publish/subscribe metaphor
- Replication types
- Replication agents

### **Managing transactional replication**

- Configuring the Publisher and Distributor
- Creating publications
- Subscribing to publications

## **Monitoring SQL Server**

- Determining whether your hardware is adequate
- Identifying bottlenecks
- Deploying the SQL Server Health and History Tool (SQLH2)
- Scheduling SQLH2 data collection
- Interrogating the SQLH2 repository