Implementing Microsoft SQL Server 2008

Exercise Guide

Database by Design

Installation Lab:

This lab deals with installing the SQL Server 2008 database. The requirements are to have either a Windows 7 machine or minimum of a 2003 Windows Server:

1) Step one, download the trial version of 2008 SQL Server database from Microsoft's website.
2) After downloading the appropriate software for you operating system
3) Run the 'setup' utility after downloading.
4) Select 'Installation'
5) Select 'New installation or add features to existing installation'
6) Select 'ok' for setup support rules
7) Install the setup support files
8) Select 'Next' for Setup Support Rules
9) Select 'Installation' for installation type
10) Select 'free edition and evaluation'
11) Accept the license terms
12) Sql Server Feature Installation
13) Instance Features: Database Engine Services, Analysis Services, Reporting Services
14) Installation Rules: New
15) Select Default Instance
16) Verify Disk Space Requirements
17) Accept service accounts
18) Assign NT AUTHORITY\LOCAL Security for SQL Server browser, SQL Server Reporting Services, SQL Server ANALYSIS Services
19) Assign NT Authority\System = SQL Server Database Engine, SQL Server Agent
20) No password required
21) Leave Startup type to Automatic
22) Accept Windows Authentication mode: Assign the Windows administration account
23) Accept account provisioning: Add Current User
24) Install the native mode default configuration
25) Accept Error Reporting
26) Install the configuration Rules
27) At Ready to install: Install

This will install a default SQL Server 2008 on the select operating system. The default database will be created and well as a default instance.

Configure Recovery Method Lab

This lab will configure the Northwind database to full recovery method.

1) Open SSMS
2) Connection to the database Engine
3) Expand the Northwind database, if it exists. If the Northwind database does not exist select the master
4) Right click on the selected database

5) Chose Properties
6) Chose Options
7) For recovery model change the recovery mode from ‘simple’ to full’

Create Schemas Lab

This lab will configure the create a new schema in the Northwind database

1) Open SSMS
2) Connection to the database Engine
3) Expand the Northwind database, if it exists. If the Northwind database does not exist select the master
4) Expand Security
5) Expand Schema
6) Right click on Schema
7) Select ‘New Schema’
8) Assign the name ‘GOGOGH’
9) Schema owner = dbo
10) Assign user roles guest and public
11) Accept all the permission
12) Click ‘OK’
13) Do not do anything with extended properties

We now have created the GoGogh schema

Backup the Database Lab

This lab will backup either the Northwind or master database

1) Open SSMS
2) Connection to the database Engine
3) Expand the Northwind database, if it exists. If the Northwind database does not exist select the master
4) Right click ‘Tasks’
5) Select ‘Backup’
6) Select ‘Full’ backup
7) Accept the default destination
8) Accept the default Options
9) Select ‘OK’
10) This will back up the selected database
11) Now backup the transaction log
12) Same steps however for backup type chose transaction log.

Creating Database Snapshots Lab

This lab will backup create a database snapshot for Northwind

1) Open SSMS
2) Connection to the database Engine
3) Expand the Northwind database, if it exists. If the Northwind database does not exist select the master
4) Issue the following command from a SQLQUERY prompt
5) First create a c:\snapshots directory
6) create database northwind_ds on (name = Northwind, filename = 'c:\snapshots\norhtwind.ss') as snapshot of Northwind; go
7) This will create a snapshot of Northwind
8) Expand Database Snapshots to verify the snapshot was created

Gathering performance Information Lab

This lab will utilize the SQL profile to gather performance information

1) Open SSMS
2) Connection to the database Engine
3) From Tools menu option select 'SQL Server Profiler'
4) Connect to the Database Engine
5) Name the trace event 'GoGogh'
6) Create a directory c:\gogogh
7) Select save to file c':\gogogh'
8) Accept all the defaults
9) Navigate to 'Event Selection'
10) Deselect everything other than the T-SQL Events
11) Select 'Run'
12) Allow to run for 5 minutes
13) Stop the trace
14) Review the file

Create a Database Mirror Lab

This lab will create a database mirror

1) Open SSMS
2) Connection to the database Engine
3) Expand the Northwind database
4) Right click
5) Select Task
6) Select Mirror
7) Double Click Mirror
8) Configure Security
9) Make sure your database is in full log mode
10) Follow the wizard
11) Do not configure a witness server
12) Accept the default for the principal

13) Connect to the mirror instance. Another instance must be created for the mirror
14) Accept the defaults for the mirror
15) Accept the rest of the defaults
16) Start the mirror

Implement Log Shipping Lab

This lab will implement log shipping

1) Open SSMS
2) Connection to the database Engine
3) Expand the Northwind database
4) Right click
5) Select Task
6) Select Ship Transaction Logs
7) Transaction Log Shipping
8) Check Enable this as a primary database in a log shipping configuration
9) Backup Settings
10) Networkpath = \\localhost\gogogh
11) Backup folder = c:\gogogh
12) Accept all other defaults
13) 'OK'
14) This will enable log shipping for the primary database
15) To add a secondary database the Northwind database must be backed up and restored to a secondary instance.
16) After the secondary database is created on another instance then that database can be added as the secondary instance.