

## 10985WV Introduction to SQL Databases

### Overview

**Course Duration:** 3 Days

#### About This Course

This three-day instructor-led course is aimed at people looking to move into a database professional role or whose job role is expanding to encompass database elements. The course describes fundamental database concepts including database types, database languages, and database designs.

#### Audience Profile

The primary audience for this course is people who are moving into a database role, or whose role has expanded to include database technologies.

#### Course Details

##### Module 1: Introduction to databases

This module introduces key database concepts in the context of SQL Server.

Lessons

- Introduction to relational databases
- Other types of databases
- Data analysis
- Database languages

Lab: Querying SQL Server

##### Module 2: Data Modelling

This module describes data modelling techniques.

Lessons

- Data modelling
- ANSI/SPARC database model
- Entity relationship modelling

Lab: Entity relationship modelling

##### Module 3: Normalization

This module describes normalization and denormalization techniques.

Lessons

- Why normalizes data?
- Normalization terms
- Levels of normalization
- Denormalization

Lab: Normalizing raw data

##### Module 4: Relationships

This module describes relationship types and effects in database design.

Lessons

- Schema mapping
- Referential integrity

Lab: Designing relationships

### Module 5: Performance

This module introduces the effects of database design on performance.

Lessons

- Indexing
- Query performance
- Concurrency

Lab: Query performance

### Module 6: Database Objects

This module introduces commonly used database objects.

Lessons

- Tables
- Views
- Stored procedures
- Other database objects

Lab: Using SQL Server in a hybrid cloud