10985: Introduction to SQL Databases (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.

At Course Completion

After completing this course, students will be able to:

- Describe key database concepts in the context of SQL Server 2016
- Describe database languages used in SQL Server 2016
- Describe data modelling techniques
- Describe normalization and denormalization techniques
- Describe relationship types and effects in database design
- Describe the effects of database design on performance
- Describe commonly used database objects

Prerequisites

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 OUTLINE

Module 1: Introduction to databases

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

Module 2: Data Modelling

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

Module 3: Normalization

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

Module 4: Relationships

- Schema mapping
- Referential integrity

Module 5: Performance

- Indexing
- Query performance
- Concurrency

Module 6: Database Objects

- Tables
- Views
- Stored procedures
- Other database objects