Introduction to Microsoft SQL Databases (MS-10985)

Modality: Virtual Classroom

Duration: 3 Days

SATV Value: 3

About this course:

If you are looking for a training program that offers extensive learning and experience regarding many database roles, this is the course to get enrolled into.

Our training program is ideal for database professionals or students who want to go big in the industry, we have assigned accredited professionals to teach you and help you develop a range of database skills including designs, languages, types, and other concepts that are essential to understand. What's more is that this IT Ops training program offers Introduction to Microsoft SQL Databases, allowing you to offer valuable services and perform tasks with ease.

Course Objective:

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 modeling 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

Audience:

If you want to become a database professional, this course is ideal for you. You may also take up this course if you want to learn more about various database technologies.

Prerequisite:

This is a foundation level course and therefore only requires general computer literacy.

Suggested Prerequisite Course:

- SQL: Fundamentals of Querying (SQL-QueryFund)

Course Outline:

Module 1: Introduction to databases

This module introduces key database concepts in the context of SQL Server 2016

Lessons

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

Lab : Querying SQ Server

After completing this module, you will be able to:

?Describe what a database is
?Understand basic relational aspects
?Describe database languages used in SQL Server 2016
?Describe data analytics
?Describe database languages used in SQL Server 2016

Module 2: Data Modelling

This module describes data modelling techniques.

Lessons

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

Lab : Entity relationship modelling

After completing this module, you will be able to:

?Understand the common data modelling techniques
?Describe the ANSI/SPARC database model
?Describe entity relationship modelling

Module 3: Normalization

This module describes normalization and denormalization techniques.

Lessons

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

Lab : Normalizing raw data

After completing this module, you will be able to:
?Describe normalization benefits and notation
?Describe important normalization terms
?Describe the normalization levels
?Describe the role of denormalization

Module 4: Relationships
This module describes relationship types and effects in database design.

Lessons

- Schema mapping
- Referential integrity

Lab : Designing relationships

After completing this module, you will be able to:
?Describe relationship types
?Describe the use, types, and effects of referential integrity

Module 5: Performance
This module introduces the effects of database design on performance.

Lessons

- Indexing
- Query performance
- Concurrency

Lab : Query performance

After completing this module, you will be able to:
?Discuss the performance effects of indexing
?Describe the performance effects of join and search types
?Describe the performance effects of concurrency

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

After completing this module, you will be able to:

?Describe the use of tables in SQL Server 2016
?Describe the use of views in SQL Server 2016
?Describe the use of stored procedures in SQL Server 2016
?Describe other database objects commonly used in SQL Server 2016

<u>Prerequisites</u>

This is a foundation level course and therefore only requires general computer literacy.