

Introduction to Data Modeling

Modality: On Demand

Duration: 12 Hours

About this course:

The job of the information modeler has gotten much increasingly critical to the ongoing lifecycle of maintenance and development, particularly in this period of digital change. Investigators, engineers, DBAs, and BI experts need to build up their aptitudes in analyzing and modeling information. In the case of working with new or inheritance information, you should define rules for quality, maintenance, and protection. Also, you need a decent establishment of information and data plan ideas before you begin preparing, sourcing, and manipulating information.

In this introductory course, figure out how physical and logical information modeling can give you a superior understanding of your association's information, business rules, and information engineering choices. Examine how information models are basic to your information privacy, protection, and consistency pose. Furthermore, get hands-on with genuine information—break down it, execute business necessities, create information models, and forward and figure out SQL Server databases.

Note: To finish the hands-on necessities, you'll work with Visual Studio, Office 365, and Azure SQL Database. Free or constrained time preliminaries are accessible for these items. You will require an Azure membership. You can pursue a free Azure preliminary membership (a substantial credit card is required for a check, yet you won't be charged for Azure services). Note that the free preliminary isn't accessible in all regions. It is conceivable to finish the course and win an authentication without completing the hands-on practices.

Course Objective:

- Basics of normalization and the reason for it's important to transactional databases
- Step by step instructions to physical and develop logical data models
- The best way to model data privacy, security, and protection requirements
- Where and when to model database-specific performance requirements
- The method of model-driven development fits in an agile or DevOps environment
- How to avoid schema drift and other data anti-patterns
- Step by step instructions to maintain a strategic distance from schema drift and other information anti-patterns.
- Introducing Entity-Relationship Diagramming (ERD)
- Designing Entities, Attributes, and Relationships
- Identifying Primary and Foreign Keys
- Modeling for Data Quality
- Modeling for Data Protection
- Designing Keys - Primary, Foreign, others
- Designing Tables, Columns, Constraints & Indexes
- Designing for Data Protection
- Leveraging Model-Driven Development

- Versioning, Testing, and Deliverables

Audience:

Database Engineer

Prerequisite:

An essential understanding of PCs, a willingness to learn, and a capacity to continue on and troubleshoot issues.

Course Outline:

Introducing Data Modeling

- Introducing Data Models
- Module 1 Lab and Assessment

Normalizing Data

- Introducing Normalization
- Module 2 Lab and Assessment

Designing Logical Data Models

- Introducing Entity Relationship Diagramming (ERD)
- Designing Entities, Attributes and Relationships
- Identifying Primary and Foreign Keys
- Modeling for Data Quality
- Modeling for Data Protection
- Module 3 Lab and Assessment

Designing Physical Data Models

- Modeling for Databases and Applications
- Designing Keys - Primary, Foreign, others
- Designing Tables, Columns, Constraints & Indexes
- Designing for Data Protection
- Module 4 Lab and Assessment

Leveraging Data Models in Agile and DevOps Projects

- Introducing Data Modeling Processes
- Leveraging Model-Driven Development
- Versioning, Testing and Deliverables
- Bringing it All Together
- Assessment

Final Assessment

- Final Assessment