

Data Science - Database Fundamentals/Microsoft Excel 2016 Courses

Database Fundamentals

Course Description: This course introduces and defines the terminology, concepts, and skills you need to understand database objects, security requirements, graphical tools, T-SQL scripts, and writing database queries, in addition to executing stored procedures. It also helps you prepare for Exam 98-365: Database Fundamentals, part of an MTA certification. The course is designed for individuals seeking to learn the fundamentals of relational databases, database management systems, and database components.

Video Module Number	Video Module Name	Video Module Links
		English Database Fundamentals
1	Introduction to Core Database Concepts	Introduction to Core Database Concepts
2	Relational Concepts	Relational Concepts
3	Creating Databases and Database Objects	Creating Databases and Database Objects
4	Using DML Statements	Using DML Statements
5	SQL Server Administration Fundamentals	SQL Server Administration Fundamentals

Introduction to Data Science

Course Description: How do you become a data scientist? Start with an introductory look at the field of data science, including an overview of data organization, data visualization, and data analysis. Explore the basic tools and how they're used. Learn what it takes to become a data scientist, and see a demonstration on how Excel supports the art of data analytics.

Video Module Number	Video Module Name	Video Module Link
1	What is data science?	What is data science?
2	Data Organization	Data Organization
3	Data Visualization	Data Visualization
4	Data Analysis	Data Analysis
5	Becoming a Data Scientist	Becoming a Data Scientist
6	Using Microsoft Excel 2016 to Support Data Analytics	Using Excel to Support Data Analytics

Working with Non-Relational Data

Course Description: In this course, students will learn how to work with file-based data such as JSON and XML.

Video Module Number	Video Module Name	Video Module Link
INTRO	Introduction to Non-Relational Data	Introduction to Non-Relational Data
1	Introduction to JSON	Introduction to JSON
2	JSON Syntax	JSON Syntax
3	Parsing and Generating JSON Files	Parsing and Generating JSON Files
4	JSON Application Data Storage	JSON Application Data Storage
5	What is XML?	What is XML?
6	Parts of an XML Document	Parts of an XML Document
7	XML Element Relationships	XML Element Relationships
8	XML Namespaces	XML Namespaces
9	XML Serialization in C#	XML Serialization in C#

Using Data in Software Applications

Course Description: Learn what Entity Framework ("EF") 6 is and how it can simplify your work. Investigate how it can create databases for you, and find out how to manage that creation. Then dig into advanced topics, like managing transactions and integrating stored procedures. If you're

Video Module Number	Video Module Name	Video Module Link
1	Introduction to Entity Framework	Introduction to Entity Framework
2	Beginning Code First	Beginning Code First
3	Managing Relationships	Managing Relationships
4	Managing the Database	Managing the Database
5	Managing Transactions	Managing Transaction

Analyzing and Visualizing Data with Microsoft Excel 2016

Course Description: Find out how to prepare data for pivot tables, create Data Analysis Expressions (DAX) for calculated columns and measures, build a model from a single flat table, and much more. Explore the cloud benefits of Power BI and how it works with Excel, and take a closer look at Power Pivot and at new query tools (previously known as Power Query). Plus, hear about what Excel brings to the mobile platform. In this on-demand course, get what you need to make informed business decisions, with connected pivot tables and pivot charts and the power of Excel.

Video Module Number	Video Module Name	Video Module Link
1	Data Analysis in Microsoft Excel 2016	Data Analysis in Excel

Video Module Number	Video Module Name	Video Module Link
2	The Microsoft Excel 2016 Data Model and Basic DAX	The Excel Data Model
2	The Microsoft Excel 2016 Data Model and Basic DAX	Basic DAX
3	Importing Data from a CSV File	Importing Data from a CSV File
4	Creating a Microsoft Excel 2016 Data Model from Multiple Tables	Importing Data from Databases
4	Creating a Microsoft Excel 2016 Data Model from Multiple Tables	Importing Data from Multiple Files
5	Advanced DAX	Creating and Formatting Measures
5	Advanced DAX	Using Advanced DAX Functions
6	Advanced Text Query	Advanced Text Query
7	Data Visualizations Using Microsoft Excel 2016	Data Visualizations Using Excel
8	Publishing Microsoft Excel 2016 Data Model and Report to Power BI	Publishing Excel Data Model and Report to Power BI
9	Microsoft Excel 2016 on the Mobile Platform	Power BI Mobile App

Data Science and Machine Learning Essentials

Course Description: Find out how to build and derive insights from data science and machine learning models. Explore key concepts in data acquisition, preparation, exploration, and visualization, and take a look at how to build a cloud data science solution using Azure Machine Learning, R, and Python.

1: Introduction to Data Science

Video Module Number	Video Module Name	Video Module Link
1	Overview of Data Science	Overview of Data Science
2	The Data Science Process	The Data Science Process
3	Introduction to Machine Learning	Introduction to Machine Learning
4	Regression	Regression
5	Classification	Classification
6	Clustering	Clustering
7	Recommendation	Recommendation
8	Introduction to Data Science Technologies	Introduction to Data Science Technologies

2: Working with Data

Video Module Number	Video Module Name	Video Module Link
1	Data Acquisition and Flow	Data Acquisition and Flow
2	R and Python for Data Science	R and Python for Data Science
3	Data Sampling and Quantization	Data Sampling and Quantization
4	Data Cleansing and Transformation	Data Cleansing and Transformation

3: Visualizing Data and Exploring Models

Video Module Number	Video Module Name	Video Module Link
1	Data Exploration and Visualization	Data Exploration and Visualization
2	Building Models in Azure Machine Learning	Building Models in Azure Machine Learning
3	Model Evaluation and Comparison	Model Evaluation and Comparison

4: Building Machine Learning Models

Video Module Number	Video Module Name	Video Module Link
1	Regression Modeling	Regression Modeling
2	Classification Modeling	Classification Modeling
3	Unsupervised Learning Models	Unsupervised Learning Models

5: Creating Recommenders and Publishing Models

Video Module Number	Video Module Name	Video Module Link
1	Recommendation Models	Recommendation Models
2	Introduction to Jupyter Notebooks	Introduction to Jupyter Notebooks
3	Publishing Azure Machine Learning Models	Publishing Azure Machine Learning Models