

# From Zero to ADO.NET

There are many ORMs out there to choose from; Entity Framework, NHibernate, Dapper to name a few. However, each of these suffer in various areas from being overly complicated, having performance problems, requiring too much configuration, etc. Each of them all use the ADO.NET technology under the hood, so why not just use it? In this course you learn all you need to know about ADO.NET to make working with data a breeze. In addition, a complete set of wrapper classes is provided to make the code you need to write much smaller than normal.

## Learning Objectives

Connect and submit queries to a database

Work with stored procedures

Make ADO.NET much simpler to use

## Prerequisites

Should be familiar with C#, Visual Studio and the .NET Framework.

## Course Length

1 day

# Module 1: Connecting and Submitting Queries to a Database

Creating connections

Get connection information

Using SQL Server authentication

Using blocks usage

Adding error handling

Connection strings

Scalar values

- Inserting data
- Passing parameters
- Stored procedures with output parameters
- Transaction processing

## Module 2: Retrieve Data Quickly using the SqlDataReader

- Get a set of product data
- Create a generic list from data reader
- Use GetFieldValue() method
- Create an extension method
- Working with multiple result sets

## Module 3: Handling Exceptions

- Exploring data exceptions
- Catching a SqlException object
- Gathering useful exception data

## Module 4: Disconnected Classes

- Fill a DataTable
- Create a generic list from a DataTable
- Multiple result sets and the DataSet class
- Sorting data
- Filtering data
- Using LINQ
- Using the DataView class

## Module 5: Building Blocks of the DataTable

- Build a DataTable from scratch
- Clone and copy a DataTable
- Using the Select() method
- Using the ItemArray property
- Using the ImportRow() method
- Using the CopyToDataTable() method

## Module 6: Exploring the Builder Classes

- Break apart a connection string
- Create a connection string
- Create data modification statements using SqlCommandBuilder
- Example of an INSERT

## Module 7: Making ADO.NET Easy to Use

- Create a set of wrapper classes around ADO.NET
- Write less code when working with ADO.NET
- Building CRUD logic
- Calling stored procedures
- Validating data
- Transaction processing