

C# Seminars

The following is a list of C# seminars that can be presented at your user group or other live event by **Paul D. Sheriff**.

Using JSON Instead of SQL Server

JSON data is very common in today's programming world. You will most likely need to read files, write files and query JSON data within your applications. One great use of JSON data files is to cache validation table data on the client instead of constantly gathering data that does not change often from the server. This technique comes in very handy in desktop and web applications. You can use JSON files to completely replace a database in some applications. In this seminar you will learn how to perform read, add, edit and delete operations on JSON files. You will also see a technique of how to keep your JSON files up to date with any server changes. You will walk away confident that you can put these techniques into use in your applications immediately!

Learning Objectives

Read from JSON files and create entity collections

Add/Edit/Delete records in JSON files

Read JSON from server when server data changes

Create a Simple ORM using ADO.NET

Are you looking for the fastest method of retrieving data? ADO.NET is the underlying technology for all ORMs such as the Entity Framework, Dapper, NHibernate, etc. However, each of these ORMs add additional overhead which typically translates to slower performance. Most of us don't need, or even use, all the features of these ORMs. This seminar presents a simple ORM where

you write a little more code than EF, but less code than others. However, the speed you get is well worth the effort.

Learning Objectives

Wrap up ADO.NET to make coding simpler

Create a generic method to load records into entity collections

A design pattern for standard CRUD operations

Stop Looping and Start LINQing

Do you still find yourself writing a lot of loops, and you can't help but think there must be a better way? Well, you are probably right. LINQ can help you aggregate data, extract data from existing collections, process XML, select data from EF and much more. This seminar shows you common (an uncommon) examples where you might have used loops in the past, and how to translate those into LINQ queries. LINQ is very powerful and generally is much faster than using loops, so start using it today.

Learning Objectives

LINQ basics

Moving from loops to LINQ

Checking performance of LINQ vs loops

The Basics of How-to Unit Test your Code

Everyone knows that they should be writing unit tests for their applications, but how many of us really do it? In Visual Studio unit testing is an integrated part of the development environment. There is no longer any reason to avoid not doing test driven development and automated unit testing. In this seminar you will be introduced to the basics of unit testing, how to run tests, and how to reduce the number of tests by taking advantage of data-driven tests. You will then see an example of how to architect your applications to make testing quicker and easier. At the end of this seminar you will walk away with the knowledge you need to start automating the testing of your applications.

Learning Objectives

- How to start unit testing
- Create your first unit tests
- Create data-driven unit tests

Cryptography Made Easy

Securing data is essential to all applications these days. The cryptography classes in .NET can be a little daunting to learn. However, once you learn the basics they are fairly simple. In this seminar, you learn to hash data, and to encrypt and decrypt data.

Learning Objectives

- Hashing values
- Encryption and Decryption
- Create wrapper classes to simplify cryptography

Tips and Tricks for Flexible Code

Creating applications that are flexible and maintainable means thinking about application development a little differently. You need to adopt good object-oriented techniques in order to create software that can truly adapt to a changing development environment. In this seminar you will see many examples of tips and tricks that will help you keep your software running for many years to come. You will see real-world examples of extension methods, faster reflection, string handling, generics, using XML and JSON, wrapper classes, using a provider model, configuration and exception management. You will walk away with a code that you can use in your applications right away.

Learning Objectives

- Best practices for software development
- Speeding up your applications

Making code more reusable