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Web Development .NET

Lab Exercise 9a: LINQ

Language-Integrated Query (LINQ) is a framework that enables querying data collections to be synchronously more readable and maintainable. LINQ is integrated with C#, so it removes the disparity between programming languages and databases. With various SQL-Esque keywords and syntax, LINQ allows developers working in teams to quickly understand what a snippet of code is doing. Furthermore, querying data from different sources such as arrays and dictionaries, LINQ mitigates the need to depend on different APIs by providing a consistent model to support all data sources; that feature was most intriguing to me. Moreover, the advantages of LINQ are varied and meaningful. For instance, LINQ expressions are strongly typed, ensuring values and types consistent at compile-time, with the exception of anonymous types. LINQ also catches errors at compile-time, in addition to debugging support. With its SQL-like syntax, LINQ provides a more traditional approach to query data with its lambda expressions. Personally, I prefer the lambda expressions method due to its traditional syntax, however still garnering the benefits of the LINQ framework. The consensus seems to be they do not differ in performance. A major advantage would be to allow developers to express both syntaxes when wanted, as LINQ does not prevent developers from using both in a given project.