TITLE - F SHARP

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ABSTRACT

This section will be abstract.

1 Introduction

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2 History

F# was originally developed at Microsoft Research[1], and the first version was released in 2005[2]. F# is a functional-first, multiparadigm language. The syntax of F# provides a friendly way to write code. Therefore, F# code is relatively easy to maintain compared to C#. In addition, F# is a powerful computing language for manipulating data, such as in the fields of data analysis, data visualizations, and high-performance analytics. Nowadays, F# is commonly utilized in data science and financial fields. For example, FsLab is a collection of popular F# open-source libraries for data science applications.

F# improves the language interoperability on the .NET Framework. One of the most important features of the .NET Framework is to allow developers using one language to interact with other languages[1]. Therefore, the .NET Framework provides a solution for developers to solve more complex tasks. Before F# emerged, C# and Visual Basic were the two languages in the .NET Framework ecosystem. Even they have some aspects of functional programming, but F# was designed specifically to bring together the utility of functional programming with the .NET library. After F# released, it became the perfect complement to C# and Visual Basic in the .NET Framework.

3 Control Structures

4 Data Types

5 Subprograms

6 Summary

References

[1] Fancher, Dave. Book of F : Breaking Free with Managed Functional Programming, No Starch Press, Incorporated, 2014. ProQuest Ebook Central, https://ebookcentral.proquest.com/lib/uaz/detail.action?docID=1650596.

[2] Syme, Don. The Early History of F#, Microsoft, fsharp.org, https://fsharp.org/history/hopl-draft-1.pdf

[3] Wikipedia contributors. "F Sharp (programming language)." Wikipedia, The Free Encyclopedia. Wikipedia, The Free Encyclopedia, 8 Feb. 2020. Web. 24 Mar. 2020.