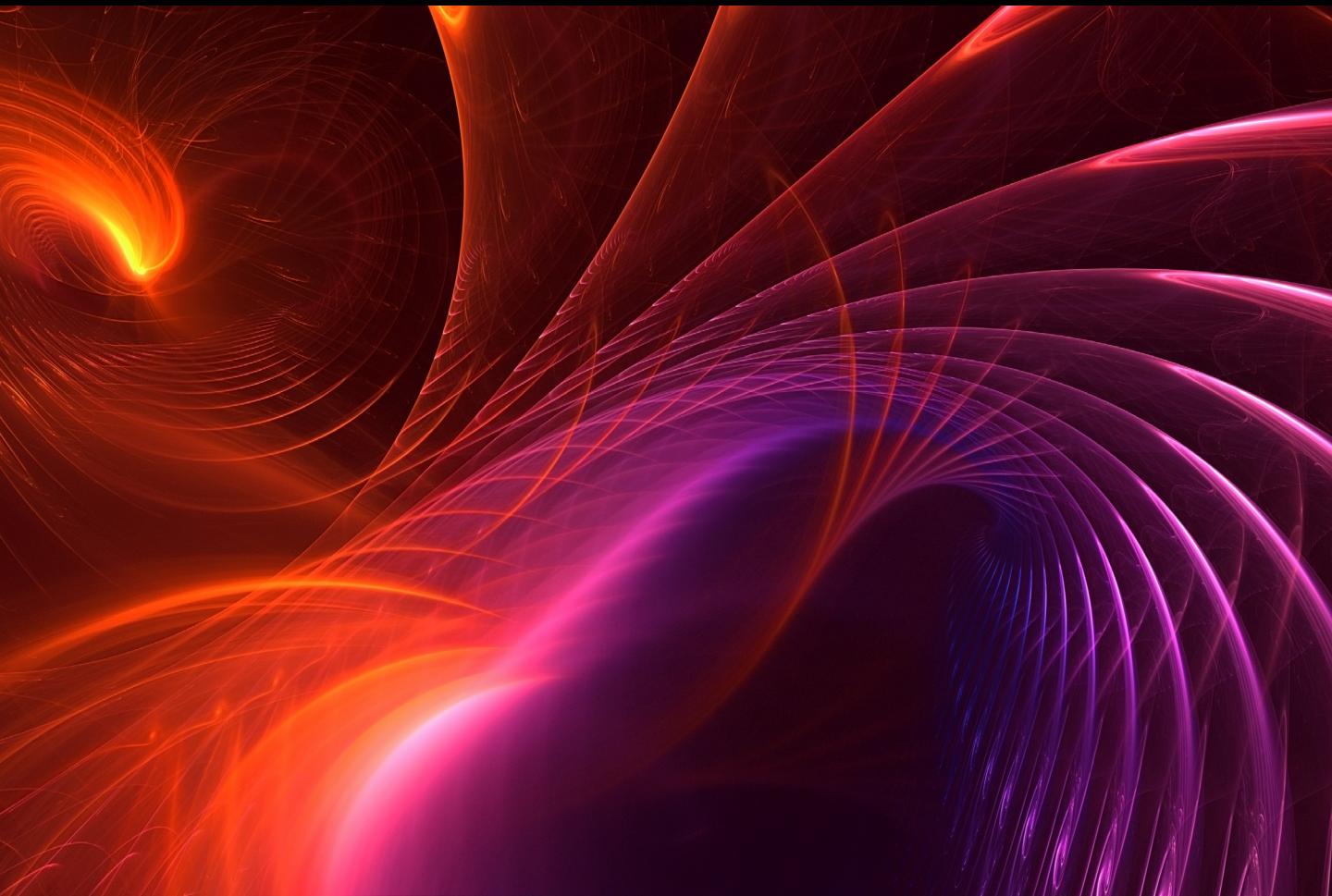


C# 13

Programming Essentials



.NET 9 Edition

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C# 13 Programming Essentials - .NET 9 Edition

ISBN-13: 978-1-965764-01-5

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Rev: 1.0



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1. Start Here

This book is a comprehensive guide to mastering the C# 13 programming language and the .NET 9 SDK, providing a thorough learning experience for both beginners and experienced developers. With 31 detailed chapters, 30 online knowledge quizzes, and access to downloadable project code, this guide is structured to support your journey from basic concepts to advanced programming techniques, all within the Visual Studio Code environment.

We will start by introducing the foundational components of the C# ecosystem, providing an overview of the Common Language Infrastructure (CLI), the Common Intermediate Language (CIL), and the Virtual Execution System (VES). These initial sections will offer a deeper understanding of the platform's architecture. Following that, we will provide step-by-step instructions for installing and using the Visual Studio Code environment.

As you advance, you will learn about the foundational principles of the C# language. This will include exploring topics such as variables, constants, operators, flow control, and loops. These basic concepts will then be expanded to cover object-oriented programming (OOP), with an emphasis on inheritance, abstract classes, interfaces, and structures.

Beyond the basics, this book advances into more specialized areas, including string manipulation, working with arrays and collections, handling exceptions, and implementing asynchronous programming techniques. These sections are designed to deepen your understanding and equip you with the skills necessary to build more sophisticated apps.

Whether you are new to programming or seeking to refine your skills, *C# 13 Programming Essentials - .NET 9 Edition* offers the knowledge and practical guidance you need to succeed in C# development.

1.1 Source code download

The source code and Visual Studio Code project files for the examples contained in this book can be downloaded using the following link:

<https://www.payloadbooks.com/product/csharp13/>

After downloading and unzipping the file, you will find the projects in the “C# Essentials” workspace folder. In Visual Studio Code, you can open the workspace by selecting *File -> Open Folder...* from the menu bar, navigating to the workspace folder, and clicking Open to load the projects.

1.2 Feedback

We want you to be satisfied with your purchase of this book. Therefore, if you find any errors in the book or have any comments, questions, or concerns, please contact us at info@payloadbooks.com.

1.3 Errata

While we make every effort to ensure the accuracy of the content of this book, inevitably, a book covering a subject area of this size and complexity may include some errors and oversights. Any known issues with the book will be outlined, together with solutions, at the following URL:

<https://www.payloadbooks.com/csharp13-errata/>

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1.4 Take the knowledge tests



Look for this section at the end of most chapters and use the link or scan the QR code to take a knowledge quiz to test and reinforce your understanding of the covered topic. Use the following link to review the full list of tests available for this book:

<https://www.answertopia.com/4my3>

