

CSS DESIGN

Master web development, unleash your creativity

CSS DESIGN

A PRACTICAL AND INSTRUCTIVE GUIDE

UP-TO-DATE, VERSATILE, ADVANCED

Based on “Programming Step by Step and More, Book 1: Part One”

René F. Ruano Domínguez

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DEDICATION

TO THE GENERATIONS OF THE FUTURE, MILLENNIALS, BABY BOOMERS AND BEYOND.

This How-To is dedicated to everyone: To you, the brilliant young minds shaping the world with your ingenuity and creativity. To the millennials, who navigate the digital age with ease and constantly seek new ways to innovate. To the baby boomers, who pioneered the technological revolution and now contribute their experience and wisdom. To the retirees who dream of staying up-to-date, filling their free time with useful hours, and exercising their minds.

PROLOGUE

CSS DESIGN captures the essence of modern web development while reflecting the dedication and expertise of its author, René Francisco Ruano Domínguez.

In today's digital landscape, development has evolved beyond static pages into dynamic, adaptive, and AI-driven experiences. Within this context, CSS plays a central role—not only in visual design but also in structuring interaction, ensuring accessibility, and enabling intelligent systems to personalize the user experience.

From responsive layouts to pseudo-classes that adapt to behavior, CSS becomes the language that transforms code into tangible interaction. This book offers a solid foundation for developers, combining clarity with practical tools that guide both beginners and professionals through essential and advanced techniques.

René's passion for teaching and his ability to simplify complex concepts shine through every page. *CSS DESIGN* is not just a manual but a valuable resource that inspires and equips readers to create smarter, more engaging web experiences.

I hope this book provides you with both a clear understanding and practical tools to advance your journey in web development. Whether you are just starting out or already a professional, the knowledge shared here will serve as a lasting resource.

With admiration and gratitude,

Idalmy Baluja Conde

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GRATITUDE

To my family, my colleagues, my friends.

Thank you, thank you so much for the unconditional support you've given me since I started this project. And to those who didn't believe in me, I'm grateful for motivating me to prove that it was worth it.

Without the encouragement, suggestions, trust they placed in me, and the personal challenge of creating a useful product, this project would not have been possible.

CSS DESIGN

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Book 1

Based on “Programming Step by Step and More, Book 1: Part One”

OBJECTIVES AND SCOPE OF THE INSTRUCTIONS

The main objective is to facilitate the learning of programming and web design from scratch in a simple and efficient way, step by step, studying, practicing, and using the essential tools and software to begin learning a programming language like JavaScript.

Throughout the chapters of this Book 1, Part 1, you'll follow a long and detailed path, starting with setting up an efficient development environment and acquiring the necessary HTML and CSS skills for web development. We'll begin by setting up essential tools like Visual Studio Code and Node.js, which are essential for writing, editing, and debugging code professionally.

You'll learn the effective use of HTML, CSS, and JavaScript comments as a key practice for maintaining code clarity and maintainability, thus promoting more efficient collaborative development. You'll create your first HTML page and learn how to write and refactor code in a structured and semantically correct manner.

The topics covered in Book 1 teach responsive design, which ensures our pages look and function optimally on a variety of devices and screen sizes. To ensure this quality requirement, we'll cover advanced techniques such as Flexbox, Grid, and media queries. We'll also introduce the basics of Sass, which will help us improve the efficiency and maintainability of our CSS code.

In short, this journey will not only provide you with the technical skills necessary to create and publish professional-quality websites but will also help you stay current and continue learning new tools and techniques in the field of web development. This combination of theoretical and practical knowledge will prepare you for the study of web programming languages in this specialty.

It's given that if you complete the first How-To Book, you'll be able to design responsive web pages and master the technique of applying CSS style properties to HTML selectors.

With this knowledge, you'll have the latest tools to design, edit, and publish excellent web pages that can be viewed elegantly on any device, regardless of the screen width.

The course of the Instructional forces you to constantly exercise your memory, performing exercises and practices of each functionality presented, 23 files (11 HTML, 9 CSS, 1 JS, 2 SASS) which helps occupy and convert time into useful hours for your benefit.

The various technologies integrated into the learning process of the Instruction Manual form a motivating framework that positively influences the user, sparking their interest and creating the expectation of moving forward in developing their creativity and imagination, impacting both young people and adults and seniors eager to learn about the new technologies present in modern communication devices.

Overall, the Tutorial is a valuable and well-thought-out resource for learning web development from scratch. The combination of theory and practice, along with extensive coverage of relevant technologies and tools, makes it an attractive option for those looking to acquire web programming skills.

Spending time learning programming languages and building websites has short-, medium-, and long-term benefits, similar to an investment. Among these benefits, you'll see how you'll expand your personal social relationships by being able to showcase and share your personal skills, knowledge, experiences, and business interests with others. This has a positive impact on people's quality of life.

In short, completing the first book of the Instruction Manual provides future benefits that elevate and improve personal qualifications, a quality that influences one's standard of living in the short and medium term.

If you decide to finish this first Instruction Book, you will feel proud and satisfied with what you have accomplished.

CONCLUSION

This instructional guide has provided a comprehensive journey through the foundational and advanced aspects of CSS, equipping readers with the tools to transform raw HTML into visually engaging, responsive, and semantically structured web interfaces.

Beginning with the syntax and selector logic, the document established a clear understanding of how styles are applied and manipulated. Through the exploration of basic and combined selectors, pseudoclasses, and pseudoelements, readers gained insight into targeting elements with precision and enhancing interactivity.

The guide then expanded into practical styling techniques—covering common properties, CSS variables, and the various methods of inserting styles into a document. These sections emphasized not only the flexibility of CSS but also the importance of maintainability and scalability in modern web development.

A detailed breakdown of container types, including block-level elements, semantic sections, Flexbox, and Grid, offered structural strategies for layout design. This was complemented by an in-depth look at color systems, gradients, and custom properties, empowering developers to craft visually coherent and accessible interfaces.

Finally, the document addressed essential styling for interactive components such as buttons, inputs, links, tables, and dropdown menus, culminating in layout strategies and unit management for consistent design across devices.

By mastering the concepts presented here, developers will be well-prepared to write clean, modular, and expressive CSS that not only enhances the user experience but also supports the long-term evolution of projects. This guide serves both as a practical reference and as a launchpad for deeper exploration into the art and science of web styling.

If you've made it this far, you've been able to basically create your own styled web pages by writing HTML and CSS code in the editor and checking the effects the styles have on the local view in the browser.

Now it's time to train it to display those web pages on any type of screen on any device available on the market, mastering responsive web design.

"The web changes every day—and so does your learning. Stay curious, because when your creativity joins forces with artificial intelligence, it can take you farther than you ever imagined."

— *René F. Ruano Domínguez*

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ABOUT THE AUTHOR

After several decades dedicated to improving the energy efficiency of heating and cooling equipment and systems, I faced a major change: retirement. Upon retirement, I felt disoriented and aimless, which affected my emotional well-being. To combat this feeling, I looked for a new occupation that would keep me active and motivated.

I decided to share my experiences and knowledge accumulated over more than four decades of working in the industry. This is how this project emerged, with the goal of publishing articles, calculation tools, and tutorials on the various disciplines I'd worked in throughout my career as an engineer, including the web programming I've used to optimize project management, investments, finance, and marketing. From my experience, web programming is a powerful tool for solving complex problems in industrial environments, technical services, and everyday life.

My new approach to looking to the future has allowed me to keep my mind active, stay up-to-date, and learn new technologies.

This tutorial was born from the conviction that programming languages are essential tools in today's world. This project is designed to help people of all ages improve their professional skills and achieve their career goals.

Whether you're just starting a career or looking for new ways to contribute your experience, this resource offers the tools and opportunities you need to grow. Learning a new programming language is an excellent way to take advantage of your free time, strengthen your resume, and stay up to date in an increasingly digital world of work.

The Author

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Book 1

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