

RESPONSIVE DESIGN & SASS

Unlock Your Potential. Build the Web

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PROGRAMMING STEP BY STEP
AND MORE
AN INSTRUCTIVE GUIDE

UP-TO-DATE, VERSATILE, ADVANCED

Book 1: Part One
RESPONSIVE DESIGN

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

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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

RESPONSIVE DESIGN & SASS

This work captures not only the essence of modern web development but also reflects the meticulous dedication and deep expertise of its author, René Francisco Ruano Domínguez.

In today's rapidly evolving digital landscape, where artificial intelligence is redefining interaction and design, this tutorial stands out as a clear, structured, and forward-thinking guide for developers ready to shape the future.

Each section has been carefully crafted to provide up-to-date, practical knowledge. From JavaScript and Node.js to ECMA standards and development environment management, the content demonstrates not only technical mastery but also a commitment to teaching developers how to build **scalable, secure, and visually polished platforms** according to modern best practices.

Particular focus is given to **responsive design** and **SASS**, two pillars that enhance user experience and facilitate the seamless integration of intelligent systems into web interfaces. Responsive design allows applications to adapt to different contexts in real time, while SASS provides a modular, reusable, and scalable styling architecture enriched with algorithmic logic.

This book is more than a technical guide; it is a statement of principles for how web development can be taught in the age of AI. Through precision, clarity, and practical insight, the author provides not just tools but a *professional mindset*, inspiring developers to create with purpose, elegance, and responsibility.

With admiration and gratitude,

Idalmy Baluja Conde

Index	Página
DEDICATION	iii
PROLOGUE	iv
GRATTITUDE	viii
1. OBJECTIVES AND SCOPE OF THIS GUIDE	1
2. JAVASCRIPT, ITS DEVELOPMENT AND CURRENT STANDARDS	3
2.1 JavaScript	3
2.2 Node.js	4
2.3 ECMA	4
3. LEARNING MANAGEMENT SYSTEM	6
4. WORK TOOLS TO BE INSTALLED	8
4.1 Work tools to be installed on the computer	8
4.2 Visual Studio Code	8
4.3 Node.js	8
4.4 Steps to install Visual Studio Code on a computer	8
4.5 Installing Node.js in the Visual Studio Code editor	10
4.6 Visual Studio Code extensions to install	11
4.7 Extensions available for Visual Studio Code	12
5. COMMENTS IN JAVASCRIPT, CSS AND HTML	16
5.1 Comments in JavaScript	16
5.2 Comments in the CSS style language	16
5.3 HTML Comments	17
6. LEARNING TO WORK WITH TOOLS	20
6.1 What's next?	20
6.2 Editor Explorer	20
6.3 Project organization	20
6.4 Creating the work environment	21
6.5 The Final Product	21
6.6 Getting Started Writing and Running Code	22
6.7 Getting Started with HTML	22
6.8 Live Server Configuration	23

Index	Página
6.9 Writing and Executing Code	23
6.10 Showing the code written in VSC	23
6.11 First Block of Scripts	24
6.12 Running the Page on a Live Server. The Browser Inspector	25
6.13 Optimizing Web Programming Learning	26
6.14 How do browsers read the codes we present to them?	29
6.15 Working with the Browser Console Tool	30
6.16 How to prefix a browser in the VSC editor	33
7. RESPONSIVE WEB DESIGN	36
7.1 What is responsive web design?	36
7.2 The box-sizing property	37
7.2.1 Difference in width and height calculation with/without border-box	38
7.2.2 Comparisons in the browser view	39
7.3 12-column responsive website	44
7.4 The viewport	49
7.4.1 Size content to viewport	50
7.4.2 Some rules to follow	50
7.5 Two-column responsive website	50
7.5.1 Using CSS FlexBox	50
7.5.2 Using CSS Grid	53
7.6 Media Query in Web Design	55
7.6.1 .col-s-* Classes	57
7.7 Grid Web Design. Grid-Layout Module	58
7.7.1 Basic Concepts	58
7.7.2 Main Properties	59
7.7.3 What is the gap?	61
7.7.4 The grid-column property	62
7.7.5 The grid-area property	63
7.8 Responsive Image Styles	65
7.8.1 Common CSS Styles for Images	65
7.8.2 Responsive CSS Styles for Images	66

Index	Página
8. INTRODUCTION TO SASS	73
8.1 Compiling Sass Files	73
8.1.1 What is meant by compile?	73
8.1.2 Manual compilation	74
8.2 Variables	76
8.3 Nesting Selectors	77
8.4 Mathematical Operations in Sass	80
8.5 Importing Files	82
8.6 Functions	83
8.7 Declare variables to be used in media queries	84
8.8 Complete example and practice	86
9. CONCLUSIONS Book 1 – RESPONSIVE DESIGN, SASS	93
10. REFERENCES	94
11. ANNEXES	96
12. MOTIVATIONAL PHRASES	126
13. ABOUT THE AUTHOR	129

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.

RESPONSIVE DESIGN & SASS

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Unlock Your Potential. Build the Web

Book 1

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

René F. Ruano Domínguez

1. OBJECTIVES AND SCOPE OF THIS GUIDE

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, 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.

RESPONSIVE DESIGN & SASS

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.

CONCLUSIONS Book 1 - RESPONSIVE DESIGN, SASS

This tutorial represents much more than a technical guide: it reflects a deep dedication to transmitting up-to-date, structured, and strategically selected knowledge to train developers capable of facing the challenges of modern and future web development.

Throughout its chapters, a comprehensive path has been covered, ranging from the fundamentals of JavaScript, Node.js, and ECMA standards to installing professional tools like Visual Studio Code and setting up efficient work environments. Special emphasis has been placed on progressive learning, project organization, and the use of comments as an essential practice for code clarity and maintainability.

The section dedicated to responsive design and SASS marks a turning point in contemporary developer training. Responsive design not only ensures accessibility and adaptability across multiple devices, but also lays the foundation for intelligent interfaces that dynamically adjust to the user's context. For its part, SASS allows for advanced style management, facilitating modularity, reuse, and scalability—key elements in projects that integrate artificial intelligence and algorithmic logic.

Each section has been crafted with professionalism, clarity, and forward-thinking. The author demonstrates a genuine commitment to educational excellence, offering not only tools but also a work mindset that promotes organization, security, aesthetics, and efficiency.

In short, this guidebook not only empowers but also inspires. It invites readers to build with purpose, to program with awareness of the changing digital environment, and to actively participate in a generation of developers who understand that code is not only functional but also expressive, strategic, and deeply human.

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"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*

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

RESPONSIVE DESIGN & SASS

A PRACTICAL AND INSTRUCTIVE GUIDE

Book 1

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