

# Mastering JavaScript Design Patterns

Discover how to use JavaScript design patterns to create powerful applications with reliable and maintainable code



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#### **Simon Timms**



**BIRMINGHAM - MUMBAI** 

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I would like to thank my wonderful wife for all her support and my children who provided a welcome distraction from writing. I would also like to thank the Prime team at Pacesetter for their sense of humor and for putting up with me.

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I would like to thank my incredible and beloved husband, Bhartendu Chaturvedi, for his constant support.

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To my wife, Melissa, and children, Oliver and Sebastian, who have been with me every step of the way. Without their support, I would be but half a person.

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# **Preface**

JavaScript is starting to become one of the most popular languages in the world. However, its history as a bit of a toy language, means that developers are tempted to ignore good design. Design patterns are a great tool to suggest some well-tried solutions.

#### What this book covers

This book is divided into two main parts, each of which contains a number of chapters. The first part of the book, which I'm calling *Part 1*, covers the classical design patterns, which are found in the GoF book. *Part 2* looks at patterns, which are either not covered in the GoF book or the ones that are more specific to JavaScript.

Chapter 1, Designing for Fun and Profit, provides an introduction to what design patterns are and why we are interested in using design patterns. We will also talk about the history of JavaScript to give a historical context.

*Chapter 2, Organizing Code,* explains how to create the classical structures used to organize code: namespaces or modules and classes as JavaScript lack these constructs as first class citizens.

Chapter 3, Creational Patterns, covers the creational patterns outlined in the Gang of Four book. We'll discuss how these patterns apply to JavaScript, as opposed to the languages which were popular at the time when the Gang of Four wrote their book.

*Chapter 4, Structural Patterns,* examines the structural patterns from the Gang of Four book following on our look at creational patterns.

*Chapter 5, Behavioral Patterns,* covers the final set of patterns from the Gang of Four book that we'll examine. These patterns govern different ways to link classes together.