

1. Record Nr.	UNINA9910300468003321
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Titolo	Building JavaScript games : for phones, tablets, and desktop // by Arjan Egges
Pubbl/distr/stampa	Berkeley, CA : , : Apress : , : Imprint : Apress, , 2014
ISBN	1-4302-6539-6
Edizione	[1st ed. 2014.]
Descrizione fisica	1 online resource (422 p.)
Disciplina	794.81526
Soggetti	Computer games—Programming Software engineering Game Development Software Engineering/Programming and Operating Systems
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Contents at a Glance; Contents; About the Author; About the Technical Reviewer; Acknowledgments; Foreword; Introduction; Part I: Getting Started; Chapter 1: Programming; Computers and Programs; Processor and Memory; Programs; The Early Days: Imperative Programming; Procedural Programming: Imperative + Procedures; Object-Oriented Programming: Procedural + Objects; Web Applications; Programming Games; Developing Games; Small Scale: Edit-Interpret-Run; Large Scale: Design-Specify-Implement; Building Your First Web Application; The HTML5 Canvas; JavaScript in a Separate File What You Have LearnedChapter 2: Game Programming Basics; Building Blocks of a Game; The Game World; The Game Loop; Building a Game Application in JavaScript; The Structure of a Program; Types of Applications; Functions; Syntax Diagrams; Calling a Function; Update and Draw; Program Layout; Comments; Instructions vs. Lines; Whitespace and Indentation; What You Have Learned; Chapter 3: Creating a Game World; Basic Types and Variables; Types; Declaration and Assignment of Variables; Global Variables and Strict Mode; Instructions and Expressions; Operators and More Complex Expressions Arithmetic OperatorsPriority of Operators; Assigning a Function to a Variable; Variables Composed of Multiple Values; The MovingSquare

Game; Scope of Variables; What You Have Learned; Chapter 4: Game Assets; Locating Sprites; Loading Sprites; Drawing Sprites; Moving Sprites; Loading and Drawing Multiple Sprites; Music and Sounds; What You Have Learned; Part II: Creating Colorful Games; Chapter 5: Knowing What the Player Is Doing; A Sprite Following the Mouse Pointer; Retrieving the Mouse Position; Changing the Origin of a Sprite; Using the Mouse Position to Rotate the Cannon Barrel
What You Have LearnedChapter 6: Reacting to Player Input; Objects in Games; Loading Sprites; Handling a Key-Down Event; Conditional Execution; Comparison Operators; Logic Operators; The Boolean Type; Aiming the Barrel at the Mouse Pointer; A Number of Different Alternatives; Toggling the Cannon Barrel's Behavior; What You Have Learned; Chapter 7: Basic Game Objects; Using Separate JavaScript Files; Loading Game Assets the Wrong Way; Methods and Functions; Loading Game Assets the Right Way; Writing a More Efficient Game Loop; Separating Generic Code from Game-Specific Code
Adding a Ball to the Game WorldCreating the Ball; Shooting the Ball; Updating the Ball; What You Have Learned; Chapter 8: Game Object Types; Creating Multiple Objects of the Same Type; Constructing Game Objects as Part of the Game World; Writing a Class with Multiple Instances; Dealing with Randomness in Games; Calculating a Random Velocity and Color; Updating the Paint Can; Drawing the Cans on the Screen; Representing Positions and Velocities as Vectors; Default Values for Parameters; What You Have Learned; Chapter 9: Colors and Collisions; A Different Way to Represent Colors
Controlled Data Access for Objects

Sommario/riassunto

Building JavaScript Games teaches game programming through a series of engaging, arcade-style games that quickly expand your JavaScript and HTML5 skills. JavaScript is in the top ten most-used programming languages world wide, and is the basis for applications that can run in any modern browser, on any device from smart phone to tablet to PC. Especial emphasis is given to touch-based interface, but all games also run using a regular mouse and keyboard setup. The four games you'll develop from reading this book are: Painter Jewel Jam Penguin Pairs Tick Tick These four games are casual, arcade-style games representing the aim-and-shoot, puzzle, maze, and platform styles of game play. The approach in Building JavaScript Games follows the basic structure of a game rather than the syntax of a language. From almost the very first chapter you are building games to run on your phone or other device and show to your friends. Successive projects teach about handling player input, manipulating game objects, designing game worlds, managing levels, and realism through physics. All told, you'll develop four well-designed games, making Building JavaScript Games one of the most enjoyable ways there is to learn about programming browser-based games. The final chapters in the book contain a very nice bonus of sorts. In them you will find excerpts from interviews with two prominent people from the game industry: Mark Overmars, who is CTO of Tingly Games and creator of GameMaker, and Peter Vesterbacka, the CMO of Rovio Entertainment - the creators of the Angry Birds franchise. Their insight and perspective round off what is already a fun and valuable book.
