Build An Html5 Game A Developers With Css And Javascript

Build an HTML5 GameA Developer's Guide with CSS and JavaScriptNo Starch Press

Flash is fading fast as Canvas continues to climb. The second edition of this popular book gets you started with HTML5 Canvas by showing you how to build interactive multimedia applications. You'll learn how to draw, render text, manipulate images, and create animation—all in the course of building an interactive web game throughout the book. Updated for the latest implementations of Canvas and related HTML5 technologies, this edition includes clear and reusable code examples to help you quickly pick up the basics—whether you currently use Flash, Silverlight, or just HTML and JavaScript. Discover why HTML5 is the future of innovative web development. Create and modify 2D drawings, text, and bitmap images Use algorithms for math-based movement and physics interactions Incorporate and manipulate video, and add audio Build a basic framework for creating a variety of games Use bitmaps and tile sheets to develop animated game graphics Go mobile: build web apps and then modify them for iOS devices Explore ways to use Canvas for 3D and multiplayer game applications

Learn to build a fully-functional 2D game inspired by the 1979 Atari classic, Asteroids, using just HTML5, CSS and JavaScript. Developing games has never been easier than it is now. New web technology allows even beginner developers to turn their hand to game development. Developed from an undergraduate course module, Introducing JavaScript Game Development teaches each new technology as it is introduced so can be followed by enthusiastic beginners as well as intermediate coders. You will learn how to work with HTML5 and the canvas element, how to understand paths, how to draw to a design and create your spaceship and asteroids. You'll then move on to animating your game, and finally building. You will work step-by-step through the game design process, starting with only what is necessary to complete each step, and refactoring the code as necessary along the way, reflecting the natural progression that code follows in the real world. Each chapter is designed to take your code base to the next level and to add to your skills. After completing the examples in this book you will have the tools necessary to build your own, high-quality games. Make the process of creating object-oriented 2D games more fun and more productive and get started on your game development journey.

HTML5 Gamesshows you how to combine HTML5, CSS3 and JavaScript to make games for the web and mobiles - games that were previously only possible with plugin technologies like Flash. Using the latest open web technologies, you are guided through the process of creating a game from scratch using Canvas, HTML5 Audio, WebGL and WebSockets. Inside, Jacob Seidelin shows you how features available in HTML5 can be used to create games. First, you will build a framework on which you will create your HTML5 game. Then each chapter covers a new aspect of the game including user input, sound, multiplayer functionality, 2D and 3D graphics and more. By the end of the book, you will have created a fully functional game that can be played in any compatible browser, or on any mobile device that supports HTML5. Topics include: Dealing with backwards compatibility Generating level data Making iOS and Android web apps Taking your game offline Using Web Workers Persistent Game Data Drawing with Canvas Capturing player input Creating 3D graphics with WebGL Textures and lighting Sound with HTML5 Audio And more...

Using HTML5, CSS3 and JavaScript

Introducing JavaScript Game Development

Core HTML5 Canvas

Building HTML5 Games with ImpactJS

Core HTML5 2D Game Programming

Learn to Build your Own Games using HTML5 and JavaScript

Create mobile game apps for the lucrative gaming market If you're an experienced developer seeking to break into the sizzling mobile game market, this is the book for you. Covering all mobile and touchscreen devices, including iPhones, iPads, Android, and WP7.5, this book takes you through the steps of building both single- and multi-player mobile games. Topics include standard patterns for building games in HTML5, what methods to choose for building (CSS3, SVG, or Canvas), popular game engines and frameworks, and much more. Best of all, code for six basic games is provided, so you can modify, further develop, and make it your own. Shows intermediate developers how to develop games in HTML5 and build games for iPhone, iPad, Android, and WP7.5 mobile and touchscreen devices Explains single-player and multi-player mobile game development Provides code for six basic games in a GitHub repository, so readers can collaborate and develop the code themselves Explores specific APIs to make games even more compelling, including geolocation, audio, and device orientation Reviews three popular open-source HTML5 game engines--crafty.js, easel.js, and enchant.js Covers simple physics as well as using an existing physics library The world is going mobile, as is the game industry. Professional HTML5 Mobile Game Development helps savvy developers join in this exploding market.

By teaching HTML5 by developing exciting games, the reader will see concrete applications for each of the concepts, and will also have a powerful deliverable at the end of each chapter - a fully functional game. We learn the various concepts using very abstract examples - how to model animals, foods, or fictitious machines. This makes learning and understanding a lot easier, and much more enjoyable.If you are are looking to get a good grounding in how to use the new awesome technology that is HTML5, this book is for you. Basic knowledge of HTML and/or HTML5 is welcome, but optional. The book is a friendly and exciting reference for beginners.

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.

HTML5 opens up a plethora of new avenues for application and game development on the web. Games can now be created and interacted with directly within HTML, with no need for users to download extra plugins, or for developers to learn new languages. Important new features such as the Canvas tag enable drawing directly onto the web page. The Audio tag allows sounds to be triggered and played from within your HTML code, the WebSockets API facilitates real-time communication, and the local storage API enables data such as high scores or game preferences to be kept on a user's computer for retrieval next time they play. All of these features and many more are covered within The Essential Guide to HTML5. The book begins at an introductory level, teaching the essentials of HTML5 and JavaScript through game development. Each chapter features a familiar game type as its core example, such as hangman, rock-paper-scissors, or dice games, and uses these simple constructs to build a solid skillset of the key HTML5 concepts and features. By working through these hands on examples, you will gain a deep, practical knowledge of HTML5 that will enable you to build your own, more advanced games and applications. Concepts are introduced and motivated with easy-to-grasp, appealing examples Code is explained in detail after general explanations Reader is guided into how to make the examples 'their own'

Build Online Games with Canvas, SVG, and WebGL

Using Games to learn HTML5 and JavaScript

Hands-On Game Development with WebAssembly

Learn WebAssembly C++ programming by building a retro space game

HTML5 Games

Using HTML5 and JavaScript

Want to start building great web games with HTML5 and JavaScript? Moving from Flash or other game platforms? Already building HTML5 games and want to get better and faster at it? This guide brings together everything you need: expert guidance, sample projects, and working code! Evan Burchard walks you step-by-step through quickly building 10 popular types of games. Each chapter implements a game within a well-understood genre; introduces a different free, open source, and easy-to-use HTML5 game engine; and is accompanied with full JavaScript source code listings. Each game recipe uses tested and well-proven patterns that address the development challenges unique to that genre, and shows how to use existing tools and engines to build complete substantial game projects in just hours. Need a quick JavaScript primer? Evan Burchard provides that, too! Coverage includes • Mastering an essential HTML5/JavaScript game development toolset: browser, text editor, terminal, JavaScript console, game engine, and more • Accelerating development with external libraries and proven patterns • Managing browser differences between IE, Firefox, and Chrome • Getting up to speed on web development with a QUIZ game built with JavaScript, HTML, CSS, and JQuery • Creating INTERACTIVE FICTION "gamebooks" that leverage new CSS3 features and impress.js • Building PARTY games around the lightweight atom.js engine • Developing PUZZLE games with the easel.js graphics rendering engine • Writing PLATFORMERS with melon.js and its integrated tilemap editor • Coding intense 2-player FIGHTING games for web browsers with game.js • Building a SPACE SHOOTER with the jQuery-based gameQuery game engine • Implementing pseudo-3D techniques like ray casting for an FPS (First Person Shooter) style game • Producing a 16 bit RPG (Role Playing Game) complete with interfaces for dialog, inventories, and turn-based battles with enchant.js • Building an isometric RTS (Real Time Strategy) game that incorporates server components along with node.js, socket.io, and crafty.js • Engaging players with content that encourages exploration Turn to The Web Game Developer's Cookbook for proven, expert answers–and the code you need to implement them. It's all you need to jumpstart any web game project!

If you already have even basic familiarity with HTML, CSS, and JavaScript, you're ready to learn how to build a browser-based game. In Build an HTML5 Game, you'll use your skills to create a truly cross-platform bubble-shooter game—playable in both desktop and mobile browsers. As you follow along with this in-depth, hands-on tutorial, you'll learn how to: –Send sprites zooming around the screen with JavaScript animations –Make things explode with a jQuery plug-in –Use hitboxes and geometry to detect collisions –Implement game logic to display levels and respond to player input –Convey changes in game state with animation and sound –Add flair to a game interface with CSS transitions and transformations –Gain pixel-level control over your game display with the HTML canvas The programming starts right away in Chapter 1—no hemming and hawing, history, or throat clearing. Exercises at the end of each chapter challenge you to dig in to the bubble shooter's code and modify the game. Go ahead. Take the plunge. Learn to create a complete HTML5 game right now and then use your newfound skills to build your own mega-popular, addictive game.

Build Your Own 2D Game Engine and Create Great Web Games teaches you how to develop your own web-based game engine step-by-step, allowing you to create a wide variety of online videogames that can be played in common web browsers. Chapters include examples and projects that gradually increase in complexity while introducing a ground-up design framework, providing you with the foundational concepts needed to build fun and engaging 2D games. By the end of this book you will have created a complete prototype level for a side scrolling action platform game and will be prepared to begin designing additional levels and games of your own. This book isolates and presents relevant knowledge from software engineering, computer graphics, mathematics, physics, game development, game mechanics, and level design in the context of building a 2D game engine from scratch. The book then derives and analyzes the source code needed to implement thes e concepts based on HTML5, JavaScript, and WebGL. After completing the projects you will understand the core-concepts and implementation details of a typical 2D game engine and you will be familiar with a design and prototyping methodology you can use to create game levels and mechanics that are fun and engaging for players. You will gain insights into the many ways software design and creative design must work together to deliver the best game experiences, and you will have access to a versatile 2D game engine that you can expand upon or utilize directly to build your own 2D games that can be played online from anywhere. • Assists the reader in understanding the core-concepts behind a 2D game engine • Guides the reader in building a functional game engine based on these concepts • Lead s the reader in exploring the interplay between technical design and game experience design • Teaches the reader how to build their own 2D games that can be played across internet via popular browsers

HTML5 Games Most Wanted gathers the top HTML5 games developers and reveals the passion they all share for creating and coding great games. You'll learn programming tips, tricks, and optimization techniques alongside real-world code examples that you can use in your own projects. You won't just make games—you'll make great games. The book is packed full of JavaScript, HTML5, WebGL, and CSS3 code, showing you how these fantastic games were built and passing on the skills you'll need to create your own great games. Whether you're a coding expert looking for secrets to push your games further, or a beginner looking for inspiration and a solid game to build on and experiment with, HTML5 Games Most Wanted is for you. Topics and games covered include building complexity from simplicity in A to B, how to create, save, and load game levels in Marble Run, creating fast 3D action games like Cycleblob, and tips on combining the entangled web of HTML5 technologies brilliantly shown in Far7.

Building a 2D Game Physics Engine

Using HTML5, JavaScript, and WebGL

Making Isometric Social Real-Time Games with HTML5, CSS3, and JavaScript

Build an Html5 Game

HTML5 Game Development with GameMaker

HTML5 Game Development by Example: Beginner's Guide

HTML5 is a markup language used to structure and present content for the World Wide Web and is a core technology of the Internet. It is supported across different platforms and is also supported by various browsers. Its innovative features, such as canvas, audio, and video elements, make it an excellent game building tool. HTML5 Game Development by Example Beginner's Guide Second Edition is a step-by-step tutorial that will help you create several games from scratch, with useful examples. Starting with an introduction to HTML5, the chapters of this book help you gain a better understanding of the various concepts and features of HTML5. By the end of the book, you'll have the knowledge, skills, and level of understanding you need to efficiently develop games over the network using HTML5.

Dive into game development and create great multiplayer online games with Pro Android Web Game Apps. This hands-on guide covers both the theory and practice of browser game development for the Android platform. You'll use cutting-edge technologies to make game engines in your browser, establish real-time server communication, and create amazing gaming experiences with artificial intelligence and rich media. Bring your knowledge of HTML and JavaScript to the next level with Pro Android Web Game Apps. You are guided through exciting projects that give you firsthand experience with core game app development concepts. You'll start with a blank HTML page, and by the end of the book, have the skills needed to create a multiplayer online game with rich graphics, sound, animation, and more—even if you have no previous games development or server-side experience.

Create games with graphics that pop for the web and mobile devices! HTML5 is the tool game developers and designers have been eagerly awaiting. It simplifies the job of creating graphically rich, interactive games for the Internet and mobile devices, and this easy-to-use guide simplifies the learning curve. Illustrated in full color, the book takes you step by step through the basics of HTML5 and shows you how to use it to build interactive games with 2D graphics, video, database capability, and plenty of action. Learn to create sports and adventure games, pong games, board games, and more, for both mobile devices and the standard web. Learn to use the new HTML5 technology that makes it easier to create games with lots of action, colorful 2D graphics, and interactivity--for both the web and mobile devices Test and debug your games before deploying them Take advantage of how HTML5 allows for SQL-like data storage, which is especially valuable if you're not well versed in database management Explore creating games suitable for community activity and powerful, profitable games that require large amounts of data Whether you want to build games as a fun hobby or hope to launch a new career, this full-color guide covers everything you need to know to make the most of HTML5 for game design.

Written for the new generation of hobbyists and aspiring game developers, HTML5 Game Development from the Ground Up with Construct 2 shows you how to use the sophisticated yet user-friendly HTML5-based game engine Construct 2 to develop and release polished, two-dimensional games on a multitude of different platforms. The book also covers the foundational knowledge of game analysis and design based on the author's research and teaching experiences at DigiPen Institute of Technology, James Cook University, and other institutions. The author first helps you understand what really matters in games. He guides you in becoming a better game designer from the ground up, being able to play any game critically, and expressing your ideas in a clear and concise format. The book then presents step-by-step tutorials on designing games. It explains how to build an arcade-style game as well as a platformer integrating some physics elements. It also shows you how to create a more complex puzzle game—the author's own published game, Turky on the Run. Lastly, the book discusses different ways to deploy and monetize games across several platforms, including Facebook, iOS, Android, and web-based marketplaces. Sample Construct 2 project files for the games designed in the book are available on the author's website. Integrating hands-on guidance with theoretical game design concepts, this book gives you a solid foundation in game development. It will help you advance in your journey as an indie game developer.

Build the Best HTML5 Games

Advanced Game Design with HTML5 and JavaScript

A Developer's Guide with CSS and JavaScript

HTML5 Game Programming with Enchant.js

The Advanced Game Developer's Toolkit

HTML5 Game Engines

Build your next game on a bigger scale with Pro HTML5 Games. This essential book teaches you to master advanced game programming in HTML5. You'll learn techniques that you can transfer to any area of HTML5 game development to make your own professional HTML5 games. Led by an expert game programmer, you'll build two complete games in HTML5: a strategy puzzle game based on the Box2d physics engine and in the style of Angry Birds and a real-time strategy (RTS) game complete with units, buildings, path-finding, artificial intelligence, and multiplayer support. This new and fully updated second edition now includes chapters on mobile game development and an essential game developer's toolkit. Understand how to develop complex, bolder games and become an HTML5 games pro using Pro HTML5 Games today. What You'll Learn Create realistic physics in your game by incorporating the Box2d physics engine Design large worlds with lots of characters and let users interact with them Use sprite sheets, panning, parallax scrolling, and sound effects to build a more polished game Incorporate

pathfinding and steering to help characters navigate through your world Create challenging levels with intelligent enemies by using decision trees, state machines, and scripted events Add multiplayer in your games using Node.js and the WebSocket API

If you already have even basic familiarity with HTML, CSS, and JavaScript, you're ready to learn how to build a browser-based game. In Build an HTML5 Game, you'll use your skills to create a truly cross-platform bubble-shooter game - playable in both desktop and mobile browsers.The programming starts right away in Chapter no hemming and hawing, history, or throat clearing. Exercises at the end of each chapter challenge you to dig in to the bubble shooter's code and modify the game.Go ahead. Take the plunge. Learn to create a complete HTML5 game right now and then use your newfound skills to build your own mega-popular, addictive game.

Build and Distribute Your Game Using an HTML5 Game Engine As mobile hardware improves, HTML5 is gradually being used for gaming apps and a growing industry of game engines has begun to support it. HTML5 Game Engines: App Development and Distribution presents an introduction to development with HTML5 game engines as well as an in-depth look at popular engines. Along with downloadable example projects for each engine, the book provides techniques for packaging and distributing the final app to all the major platforms. Get Hands-On Guidance through Practical Techniques and Examples The book is divided into three parts. The first one covers the essentials of HTML5, discusses development strategies and techniques, and takes you through a basic pong game running in the browser with no dependencies. The second part implements four games using the Crafty, EaselJS, Impact, and Turbulenz game engines. In the third part, the author describes how several of these games are distributed on platforms, such as the Chrome Web Store, Apple iOS App Store, Google Play Store, and Facebook.

Anyone familiar with Zynga's Farmville understands how fun and addictive real-time social games can be. This hands-on guide shows you how to design and build one of these games from start to finish, with nothing but open source tools. You'll learn how to render graphics, animate with sprites, add sound, validate scores to prevent cheating, and more, using detailed examples and code samples. By the end of the book, you'll complete a project called Tourist Resort that combines all of the techniques you've learned. You'll also learn how to integrate your game with Facebook. If you're familiar with JavaScript, HTML5, and CSS3, you're ready to get started. Use HTML5's canvas element to build smooth animations with sprites Create an isometric grid pattern for high-performance graphics Design a GUI that works equally well on mobile devices and PCs Add sound to your game with HTML5's audio element Implement the game's path-finding function with WebWorkers Build a client data model on the server with PHP and MySQL Make your game come alive with dynamic CSS3 objects

App Development and Distribution

Creating Fun with HTML5, CSS3 and WebGL

Build Your Own 2D Game Engine and Create Great Web Games

Beginning Facebook Game Apps Development

Build your own 2D Game Engine and Create Great Web Games

A Hands-on Guide to Building Online Games Using Canvas, SVG, and WebGL

Create a real 2D game from start to finish with ImpactJS, the JavaScript game framework that works with the HTML5's Canvas element. Making video games is hard work that requires technical skills, a lot of planning, and—most critically—a commitment to completing the project. With this hands-on guide, you'll learn how to use Impact with other technologies step-by-step. You'll pick up important tips about game design, and discover how to publish Impact games to the Web, desktop, and mobile—including a method to package your game as a native iOS app. Packed with screen shots and sample code, this book is ideal for game developers of all levels. Set up your development environment and discover Impact's advantages Build a complete game with core logic, collision detection, and player and monster behavior Learn why a game design document is critical before you start building Display and animate game artwork with sprite sheets Add sound effects, background music, and text Create screens to display stats and in-game status Prepare to publish by baking your game files into a single file

If you already have even basic familiarity with HTML, CSS, and JavaScript, you're ready to learn how to build a browser-based game. In Build an HTML5 Game, you'll use your skills to create a truly cross-platform bubble-shooter game—playable in both desktop and mobile browsers. As you follow along with this in-depth, hands-on tutorial, you'll learn how to: Send sprites zooming around the screen with JavaScript animations Make things explode with a jQuery plug-in Use hitboxes and geometry to detect collisions Implement game logic to display levels and respond to player input Convey changes in game state with animation and sound Add flair to a game interface with CSS transitions and transformations Gain pixel-level control over your game display with the HTML canvas The programming starts right away in Chapter 1—no hemming and hawing, history, or throat clearing. Exercises at the end of each chapter challenge you to dig in to the bubble shooter's code and modify the game. Go ahead. Take the plunge. Learn to create a complete HTML5 game right now and then use your newfound skills to build your own mega-popular, addictive game.

Foundation HTML5 Canvas: For Games and Entertainment teaches you how to make exciting interactive games and applications using HTML5 canvas. Canvas lets you produce graphics, animations, and applications using the HTML5 and JavaScript web standards. It allows you to draw directly within the browser without the need for third-party plugins like Adobe Flash, and so canvas works perfectly across desktop and mobile devices, like the iPhone and Android. Foundation HTML5 Canvas begins by introducing you to HTML5 and the cool new features that it opens up for you. You are then offered a quick guide to JavaScript programming to get you up to speed. Next up you'll receive a thorough introduction to the canvas element, which teaches you how to draw objects within the browser with great ease. Once the basics are covered you'll move on to the more advanced features of canvas, including image and video manipulation. You'll also learn how to create realistic animations with the help of some basic physics. Foundation HTML5 Canvas then teaches you how to create two thrilling space-based games using all the skills you've learned so far. You'll find plenty of code examples and illustrations designed to help you understand even the most complex of topics. HTML5 is already here for you, and this book will provide you with all the information you need to enjoy the show. For more information, source code, and the latest blog posts from author Rob Hawkes, visit http://rawkes.com/foundationcanvas.

Presents practical instrucion and theory for using the features of HTML5 to create a online gaming applications.

The Essential Guide to HTML5

Graphics, Animation, and Game Development

Using JavaScript and HTML5 to Develop Games

Foundation HTML5 Canvas

Create Amazing Web-based Games with JavaScript and HTML5

Building JavaScript Games

Build on your basic knowledge of HTML5 and JavaScript to create substantial HTML5 applications. Through the many interesting projects you can create in this book, you'll develop HTML5 skills for future projects, and extend the core skills you may have learned with its companion book, The Essential Guide to HTML5. HTML5 and JavaScript Projects is fully updated as a second edition and covers important programming techniques and HTML, CSS, and JavaScript features to help you build projects with images, animation, video, audio and line drawings. You'll learn how to build games, quizzes and other interactive projects; incorporate the use of the Google Maps API and localStorage; and address the challenges of Responsive Design and Accessibility. Each project starts out with a description of the example's operation, often with full-color illustrations. You'll then review the HTML5 and JavaScript concepts that relate to the project followed by a step-by-step explanation of the programming used. Tables are used to show the relationship of functions and provide comments for each line of code so that you can easily apply the techniques to your own HTML5 projects. What You'll Learn Enhance your HTML5 and JavaScript programming skills. Poduce applications combining Canvas drawings, photos, and videos Incorporate Google Maps and geolocation into your projects Build applications requiring persistent data, storing the information locally or on a database on the server Who This Book Is For Developers who have some knowledge of programming and want to build more substantial applications by combining basic features and combining JavaScript with other technologies.

Build your very own 2D physics-based game simulation system for rigid body dynamics. Beginning from scratch, in this book you will cover the implementation technologies, HTML5 and JavaScript; assemble a simple and yet complete fundamental mathematics support library; define basic rigid body behaviors; detect and resolve rigid body collisions; and simulate collision responses after the collisions. In this way, by the end of Building a 2D Game Physics Engine, you will have an in-depth understanding of the specific concepts and events, implementation details, and actual source code of a physics game engine that is suitable for building 2D games or templates for any 2D games you can create and can be played across the Internet via popular web-browsers. What You'll Learn Gain an understanding of 2D game engine physics and how to utilize it in your own games Describe the basic behaviors of rigid bodies Detect collisions between rigid bodies Resolve interpretations after rigid body collisions Model and implement rigid body impulse responses Who This Book Is For Game enthusiasts, hobbyists, and anyone who is interested in building their own 2D physics game engines but is unsure of how to begin.

Go ahead. Take the plunge. Learn to create a complete HTML5 game right now and then use your newfound skills to build your own mega-popular, addictive game.Exercises at the end of each chapter challenge you to dig in to the bubble shooter's code and modify the game.you'll use your skills to create a truly cross-platform bubble-shooter game - playable in both desktop and mobile browsers.

Get Started Fast with HTML5 Online Game Programming! HTML5 will transform web and mobile gaming. As new browsers rapidly adopt it, HTML5 will do everything "legacy" technologies such as Flash and Silverlight have done--and much more. In Learning HTML5 Game Programming, pioneering developer James L. Williams gives you all the knowledge, code, and insights you'll need to get started fast! Williams combines detailed explanations of HTML5's key innovations with examples, including two case study applications that address the entire development process. He guides you through setting up a state-of-the-art HTML5 development environment; making the most of HTML5's canvas tag, SVG vector graphics, and WebGL 3D; and targeting diverse mobile and social platforms. It's all here: from the essentials of online game design to the nitty-gritty details of performance optimization. About the Website All code samples and answers to chapter exercises are available for download at www.informit.com/title/9780321767363 and on Github at https://github.com/jwill/html5-game-book. Coverage includes · Understanding the HTML5 innovations that make it possible to create amazingly rich games · Setting up a state-of-the-art open source HTML5 game development environment · Using JavaScript to drive sophisticated interactions between users and games · Building basic games fast, with the prototype-based Simple Game Framework (SGF) · Generating movement and gameplay with the canvas tag and surface · Creating games with SVG vector graphics using the RaphaëlJS Javascript library · Using Three.js to build powerful WebGL 3D games with far less complexity · Developing games without JavaScript, using Google Web Toolkit (GWT) or CoffeeScript · Building a complete multiplayer game server using Node.js and WebSockets · Planning and choosing tools for mobile game development with HTML5 · Optimizing game performance with offline cache, minification, and other techniques Learning HTML5 Game Programming is the fastest route to success with HTML5 game development--whether you're a long-time game developer or a web/mobile programmer building games for the first time.

Pro HTML5 Games

Foundation Game Design with HTML5 and JavaScript

for Phones, Tablets, and Desktop

Build an HTML5 Game

Build a 2D Game from the Ground Up

Rendering Simple 3D Worlds with Sprites and Maps

The development begins right away in Section no hemming and hawing, history, or neck cleaning. Workouts at the end of each chapter task you to dig in to the percolate shooter's program code and change the experience. Go ahead. Take the drop. Understand to build a complete HTML5 activity right now and then use your newly found abilities to make your own mega-popular, obsessive activity.If you already have even basic understanding with HTML, CSS, and JavaScript, you're ready to understand how to develop a browser-based activity. In Develop an HTML5 Game, you'll use your abilities to build a truly cross-platform bubble-shooter activity - usable in both pc and mobile web browsers.

Today's Facebook is emerging to become tomorrow's operating system, according to some. Certainly, a WebOS. Web standards-based apps using HTML5, JavaScript, CSS3 and more are now possible on Facebook. Why not get started with developing and selling Facebook game apps on Facebook's App Store? Beginning Facebook Game Apps Development gets you started with building your first game apps that run on Facebook. Become your own "Zynga" and create your own "Civilization" or "Farmville" and more. Build rich Web-based apps that you can sell on Facebook's App Store. Because these apps are built on Web standards, you can build and run on many browsers and—more interestingly—more computers, tablets, smartphones and even other devices and appliances that are Web-connected or enabled.

Game programming offers a wealth of creative and business opportunities, and it's never been more accessible. In Core HTML5 2D Game Programming, best-selling author David Geary shows you how to use freely available browser tools and open source resources to create video games that run in desktop browsers and on mobile devices. Geary walks you step by step through every aspect of implementing a sophisticated arcade-style game entirely from scratch, without using proprietary game frameworks. Packed with code, this full-color tutorial gives you the in-depth understanding you need to design and build any kind of HTML5 2D game on your own, whether you use a framework or not. A clearly written, accessible, and exhaustive guide to implementing games, this book leaves no stone unturned, showing you how to Create smooth, flicker-free animations Implement motion that's unaffected by your game's underlying animation frame rate Animate sprites (graphical objects) to make them sparkle, explode, etc. Layer multi-channel sound effects on top of a soundtrack Warp time to create nonlinear effects, such as jumping or bouncing Control the flow of time through your game with a time system Implement particle systems that simulate natural phenomena Efficiently detect collisions between sprites Create a developer backdoor containing special features Use Node.js and socket.io to transfer real-time metrics to a server Employ a heads-up display to show high scores stored on a server Understand the nuances of implementing HTML5 games for mobile devices Through expertly written code that's easy to understand, and prose that cuts to the chase, Geary illuminates every corner of game development. Everyone from novice game programmers to professional game developers will find this book invaluable as both a tutorial and a reference. All of the book's source code, including chapter-specific versions of the game discussed in the book, are available at corehtml5games.com.

Foundation Game Design with HTML5 and JavaScript teaches you everything you need to know about how to make video games. If you've never done any programming before and don't know where to start, this book will show you how to make games from start to finish. You'll learn all the latest programming technologies (HTML5, CSS, and JavaScript) to create your games. All written in a fun and friendly style with open-ended projects that encourage you to build your own original games. Foundation Game Design with HTML5 and JavaScript starts by showing you how you can use basic programming to create logic games, adventure games, and create interactive game graphics. Design a game character, learn to control it with the keyboard, mouse, or touch screen interface, and then learn how to use collision detection to build an interactive game world. You'll learn to make maze games, platform jumping games, and fast paced action games that cover all the popular genres of 2D gaming. Create intelligent enemies, use realistic physics, sound effects and music, and learn how to animate game characters. Whether you're creating games for the web or mobile devices, everything you need to get started on a career as a game designer is right here. Focused and friendly introduction to making games with HTML5. Essential programming and graphic design techniques for building games, with each chapter gently building on the skills of preceding chapters. Detailed case studies demonstrating techniques that can be used for making games in a wide variety of genres.

Build on your Basic Knowledge of HTML5 and JavaScript to Create Substantial HTML5 Applications

HTML5 Canvas

Learning Html5 by Creating Fun Games

Professional HTML5 Mobile Game Development

Using HTML5, JavaScript, and WebGL2

HTML5 and JavaScript Projects

Develop a 2D game engine that will give you the experience and core understanding of foundational concepts for building complex and fun 2D games that can be played across the Internet via popular web browsers. This book is organized so that the chapters follow logical steps of building a game engine and integrates concepts accordingly. Build Your Own 2D Game Engine and Create Great Web Games isolates and presents relevant concepts from software engineering, computer graphics, mathematics, physics, game development and game design in the context of building a 2D game engine from scratch. In this edition, all the code is based on updated versions of JavaScript with HTML5 and WebGL2: you will analyze the source code needed to create a game engine that is suitable for implementing typical casual 2D videogames. You will also learn about physics and particle system. The discussion of physics component includes rotations and popular physical materials such as wood, mud, and ice. The discussion of particle component has popular presets such as fire, smoke, and dust. By the end of the book, you will understand the core concepts and implementation details of a typical 2D game engine, learn insights into how these concepts affect game design and game play, and have access to a versatile 2D game engine that they can expand upon or utilize to build their own 2D games from scratch with HTML5, JavaScript, and WebGL2. What You Will Learn Understand essential concepts for building 2D games Grasp the basic architecture of 2D game engines Understand illumination models in 2D games Learn basic physics used in 2D games Find out how these core concepts affect game design and game play Learn to design and develop 2D interactive games Who Is

This Book For Game enthusiasts, hobbyists, and anyone with little to no experience who are interested in building interactive games but are unsure of how to begin. This can also serve as a textbook for a junior- or senior-level "Introduction to Game Engine" course in a Computer Science department.

The book is a friendly but explosive reference for all skill levels, with several action packed projects. You will develop the ability to build games from scratch with a comprehensive practical tutorial guide. This book is assured to boost your skill set to another level.This book is for anyone with a passion to create fun and action packed web browser games using GameMaker Studio. This intuitive practical guide appeals to both beginners and advanced users wanting to create and release online games to share with the world, using the powerful GameMaker tool.

One of HTML5's most exciting features, Canvas provides a powerful 2D graphics API that lets you implement everything from word processors to video games. In Core HTML5 Canvas , best-selling author David Geary presents a code-fueled, no-nonsense deep dive into that API, covering everything you need to know to implement rich and consistent web applications that run on a wide variety of operating systems and devices. Succinctly and clearly written, this book examines dozens of real-world uses of the Canvas API, such as interactively drawing and manipulating shapes, saving and restoring the drawing surface to temporarily draw shapes and text, and implementing text controls. You'll see how to keep your applications responsive with web workers when you filter images, how to implement smooth animations, and how to create layered, 3D scrolling backgrounds with parallax. In addition, you'll see how to implement video games with extensive coverage of sprites, physics, collision detection, and the implementation of a game engine and an industrial-strength pinball game. The book concludes by showing you how to implement Canvas-based controls that you can use in any HTML5 application and how to use Canvas on mobile devices, including iOS5. This authoritative Canvas reference covers The canvas element—using it with other HTML elements, handling events, printing a canvas, and using offscreen canvases Shapes—drawing, dragging, erasing, and editing lines, arcs, circles, curves, and polygons; using shadows, gradients, and patterns Text—drawing, positioning, setting font properties; building text controls Images—drawing, scaling, clipping, processing, and animating Animations—creating smooth, efficient, and portable animations Sprites—implementing animated objects that have painters and behaviors Physics—modeling physical systems (falling bodies, pendulums, and projectiles), and implementing tweening for nonlinear motion and animation Collision detection—advanced techniques, clearly explained Game development—all aspects of game development, such as time-based motion and high score support, implemented in a game engine Custom controls—infrastructure for implementing custom controls; implementing progress bars, sliders, and an image panner Mobile applications—fitting Canvas apps on a mobile screen, using media queries, handling touch events, and specifying iOS5 artifacts, such as app icons Throughout the book, Geary discusses high-quality, reusable code to help professional developers learn everything they really need to know, with no unnecessary verbiage. All of the book's code and live demonstrations of key techniques are available at corehtml5canvas.com.

HTML5 Game Programming with enchant.js gives first-time programmers of all ages the tools to turn their video game ideas into reality. A step-by-step guide to the free, open-source HTML5 and JavaScript engine enchant.js, it is ideally suited for game fans who have always wanted to make their own game but didn't know how. It begins with the foundations of game programming and goes on to introduce advanced topics like 3D. We live in an age where smartphones and tablets have made games more ubiquitous than ever. Based around HTML5, enchant.js is ideally suited for aspiring game programmers who have always been intimidated by code. Games written using enchant.js take only a few hours to write, and can be played in a browser, iOS, and Android devices, removing the stress of programming to focus on the fun. Discover the joy of game development with enchant.js. Provides a comprehensive, easy guide to game programming through enchant.js Gives aspiring game developers a tool to realize their ideas Introduces readers to the basics of HTML5 and JavaScript programming What you'll learn Master the basics of HTML5 and JavaScript programming Create a game that can be played on a desktop, iOS, or Android Upload your game to 9leap.net, where you can share it easily Program your own 3D games Grasp the essential concepts of making a compelling and popular game Who this book is for HTML5 Game Programming with enchant.js is for aspiring game developers of all ages who have wanted to make their own games but didn't know how. It's for programmers interested in learning the potential of HTML5 through designing games. Table of Contents Beginning enchant.js Development JavaScript Basics Basic Features of enchant.js Game Design Advanced Features of enchant.js Game Design Creating a Stand-Alone 3-D Game Class Appendix

The Web Game Developer's Cookbook

HTML5 Game Development For Dummies

For Games and Entertainment

HTML5 Game Development from the Ground Up with Construct 2

Learning HTML5 Game Programming

Master the most important skills and techniques you need to know for professional HTML5 and JavaScript 2D game development. This book delves into many of the great classic techniques of video game design. You'll discover how to develop games and game levels using Tiled Editor, how to implement tile-based collision, how to design advanced pathfinding and enemy AI systems, the fundamentals of broad-phase collision, and how to make isometric games. All the techniques and supporting code are explained in an easy-to-understand manner and written in a general way so that they can be applied to any game engine or technology that you're comfortable using. You'll find detailed working examples, with dozens of illustrations and many concepts you can freely apply to your own projects. All the math and programming techniques are elaborately explained and examples are open-ended to encourage you to think of original ways to use these techniques in your own games. You can use what you learn in this book as the basis for making games for desktops, mobile phones, tablets, or the Web. The Advanced Game Developer's Toolkit is a great next step if you already have some JavaScript game-making· experience, or a great continuation if you've already read Advanced Game Design with HTML5 and JavaScript by the same author. What You'll Learn Work with advanced tile-based design techniques for puzzle, platform and maze games Use Tiled Editor to build game worlds Build path-finding and AI systems using Line of Sight and A* (A-Star) Make isometric games Manage complexity to build games of any size that scale seamlessly Who This Book Is For Video game developers with some experience who want to learn the essential techniques they need to know to take their skills to the next level and for readers who want to understand and fine-tune every line of code they write, without resorting to quick fixes.

Make your WebAssembly journey fun while making a game with it Key Features Create a WebAssembly game that implements sprites, animations, physics, particle systems, and other game development fundamentals Get to grips with advanced game mechanics in WebAssembly Learn to use WebAssembly and WebGL to render to the HTML5 canvas element Book Description Within the next few years, WebAssembly will change the web as we know it. It promises a world where you can write an application for the web in any language, and compile it for native platforms as well as the web. This book is designed to introduce web developers and game developers to the world of WebAssembly by walking through the development of a retro arcade game. You will learn how to build a WebAssembly application using C++, Emscripten, JavaScript, WebGL, SDL, and HTML5. This book covers a lot of ground in both game development and web application development. When creating a game or application that targets WebAssembly, developers need to learn a plethora of skills and tools. This book is a sample platter of those tools and skills. It covers topics including Emscripten, C/C++, WebGL, OpenGL, JavaScript, HTML5, and CSS. The reader will also learn basic techniques for game development, including 2D sprite animation, particle systems, 2D camera design, sound effects, 2D game physics, user interface design, shaders, debugging, and optimization. By the end of the book, you will be able to create simple web games and web applications targeting WebAssembly. What you will learn Build web applications with near-native performance using WebAssembly Become familiar with how web applications can be used to create games using HTML5 Canvas, WebGL, and SDL Become well versed with game development concepts such as sprites, animation, particle systems, AI, physics, camera design, sound effects, and shaders Deploy C/C++ applications to the browser using WebAssembly and Emscripten Understand how Emscripten HTML shell templates, JavaScript glue code, and a WebAssembly module interact Debug and performance tune your WebAssembly application Who this book is for Web developers and game developers interested in creating applications for the web using WebAssembly. Game developers interested in deploying their games to the web Web developers interested in creating applications that are potentially orders of magnitude faster than their existing JavaScript web apps C/C++ developers interested in using their existing skills to deploy applications to the web

Build your next game on a bigger scale with Pro HTML5 Games. This book teaches you the essentials of advanced game programming in HTML5. You'll learn techniques that you can transfer to any area of HTML5 game development to make your own professional HTML5 games! Led by an expert game programmer, you'll build two complete games in HTML5: a strategy puzzle game based on the Box2d physics engine and in the style of Angry Birds and a real-time strategy (RTS) game complete with units, buildings, path-finding, artificial intelligence, and multiplayer support. In the process, you'll learn how to do the following: Create realistic physics in your game by incorporating the Box2d physics engine Design large worlds with lots of characters and let users interact with them Use sprite sheets, panning, parallax scrolling, and sound effects to build a more polished game Incorporate pathfinding and steering to help characters navigate through your world Create challenging levels with intelligent enemies by using decision trees, state machines, and scripted events Add multiplayer in your games using Node.js and the WebSocket API This book will help you take your HTML5/JavaScript programming experience to the next level. It gives you the knowledge and skills you need to develop more complex, bolder games and become an HTML5 games pro.

How do you make a video game? Advanced Game Design with HTML5 and JavaScript is a down to earth education in how to make video games from scratch, using the powerful HTML5 and JavaScript technologies. This book is a point-by-point round up of all the essential techniques that every game designer needs to know. You'll discover how to create and render game graphics, add interactivity, sound, and animation. You'll learn how to build your own custom game engine with reusable components so that you can quickly develop games with maximum impact and minimum code. You'll also learn the secrets of vector math and advanced collision detection techniques, all of which are covered in a friendly and non-technical manner. You'll find detailed working examples, with hundreds of illustrations and thousands of lines of source code that you can freely adapt for your own projects. All the math and programming techniques are elaborately explained and examples are open-ended to encourage you to think of original ways to use these techniques in your own games. You can use what you learn in this book to make games for desktops, mobile phones, tablets or the Web. Advanced Game Design with HTML5 and JavaScript is a great next step for experienced programmers or ambitious beginners who already have some JavaScript experience, and want to jump head first into the world of video game development. It's also great follow-up book for readers of Foundation Game Design with HTML5 and JavaScript (by the same author) who want to add depth and precision to their skills. The game examples in this book use pure JavaScript, so you can code as close to the metal as possible without having to be dependent on any limiting frameworks or game engines. No libraries, no dependencies, no third-party plugins: just you, your computer, and the code. If you're looking for a book to take your game design skills into the stratosphere and beyond, this is it!

HTML5 Games Most Wanted

An Introduction On HTML5 Game Development

Pro Android Web Game Apps

Native Interactivity and Animation for the Web