

Arduino Uno Programmazione Avanzata E Libreria Di Sistema

Mobile Robotics: A Practical Introduction (2nd edition) is an excellent introduction to the foundations and methods used for designing completely autonomous mobile robots. A fascinating, cutting-edge, research topic, autonomous mobile robotics is now taught in more and more universities. In this book you are introduced to the fundamental concepts of this complex field via twelve detailed case studies that show how to build and program real working robots. Topics covered include learning, autonomous navigation in unmodified, noisy and unpredictable environments, and high fidelity robot simulation. This new edition has been updated to include a new chapter on novelty detection, and provides a very practical introduction to mobile robotics for a general scientific audience. It is essential reading for 2nd and 3rd year undergraduate students and postgraduate students studying robotics, artificial intelligence, cognitive science and robot engineering. The update and overview of core concepts in mobile robotics will assist and encourage practitioners of the field and set challenges to explore new avenues of research in this exciting field. The author is Senior Lecturer at the Department of Computer Science at the University of Essex. "A very fine overview over the relevant problems to be solved in the attempt to bring intelligence to a moving vehicle." Professor Dr. Ewald von Puttkamer, University of Kaiserslautern "Case studies show ways of achieving an impressive repertoire of kinds of learned behaviour, navigation and map-building. The book is an admirable introduction to this modern approach to mobile robotics and certainly gives a great deal of food for thought. This is an important and thought-provoking book." Alex M. Andrew in *Kybernetes* Vol 29 No 4 and *Robotica* Vol 18

Develop complete web applications from scratch through practical examples and tips for beginners and more advanced users About This Book Improve your programming experience and become a full stack developer Master real-life web applications, and create and manage four different projects Step-by-step guidance to develop real-world web applications smoothly Who This Book Is For This book is for anyone who wants to discover and explore Yii Framework. Basic programming experience with PHP and object oriented programming is assumed. What You Will Learn Understand basic concepts, along with the installation and customization of Yii Discover models, controllers, and views—concepts applied in a web context—and how they are employed in Yii Use ActiveRecord to manipulate a database Add access control to your web application through authentication and authorization Install and customize an advanced template for multiple applications in the same project Create a RESTful Web Service to allow remote access to data Develop a console application to launch a command in the console as an automated task (cron job) Make code reusable through widgets and components and localize text messages to make a multilanguage web app In Detail Yii is a high-performance PHP framework best for developing Web 2.0 applications. It provides fast, secure, and professional features to create robust projects, however, this rapid development requires the ability to organize common tasks together to build a complete application. It's all too easy to get confused; this is where this book comes in. This book contains a series of practical project examples for developers starting from scratch. Each section contains the most relevant theories for every topic as you walk through developing each project, focusing on key aspects that commonly confuse users. The book starts with all the framework's basic concepts, such as controllers and views, to introduce you to Yii and creating your first application, a simple news reader. You will be learn to configure URL rules to make a pretty URL, essential for search engine optimization. Next, you will walk through Model and ActiveRecord, key concepts in database interaction. The second application you will develop is a reservation system that allows you to manage rooms, customers, and reservations. For this, you will use database connection through SQL and ActiveRecord. More complex than the first one, this application will introduce you to the advanced template of Yii 2, splitting the app into two parts: a frontend for all visitors and a backend for the admin. Finally, you will move on to the last two applications: one that allows connections from remote clients, through RESTful components of Yii 2, and another that creates and organizes automatic tasks using the console application structure of Yii 2. Style and approach This is a step-by-step guide with each topic introduced in the context of real-world applications, highlighting common cases where users may encounter difficulties. After fifty years and fifteen editions and reprints in Italy, this classic, groundbreaking work in the field of historical urban studies is now published in English. A masterful, fluent narrative leads the reader through the last two centuries in the history of the Eternal City, capital of the Papal State, then of the united Italy, first under the monarchy and subsequently the republic. Rome's chaotic growth and often ineffective urban planning, almost invariably overpowered by building speculation, can find an opportunity for future redemption in a vibrant multicultural society and the enhancement of an unequalled archaeological heritage with the ancient Appian Way as its spine. With respect to the last Italian edition of 2011, the volume is updated, enriched in text, indexes, maps and photographs. Historians, urban planners, architects, decision makers, university students, and anyone who is interested in one of the world's most intriguing cities will enjoy this book. Best-selling author, Walter Savitch, uses a conversational style to teach programmers problem solving and programming techniques with Java. Readers are introduced to object-oriented programming and important computer science concepts such as testing and debugging techniques, program style, inheritance, and exception handling. It includes thorough coverage of the Swing libraries and event driven programming. The Java coverage is a concise, accessible introduction that covers key language features. Thorough early coverage of objects is included, with an emphasis on applications over applets. The author includes a highly flexible format that allows readers to adapt coverage of topics to their preferred order. Although the book does cover such more advanced topics as inheritance, exception handling, and the Swing libraries, it starts from the beginning, and it teaches traditional, more basic techniques, such as algorithm design. The volume provides concise coverage of computers and Java objects, primitive types, strings, and interactive I/O, flow of control, defining classes and methods, arrays, inheritance, exception handling, streams and file I/O, recursion, window interfaces using swing objects, and applets and HTML. For Programmers.

In this TAB book, bestselling electronics author Simon Monk shows maker-entrepreneurs how to use Fritzing's open-source software and services to create electronics prototypes, design and manufacture printed circuit boards (PCBs), and bring professional-quality electronic products to market. Fritzing for Inventors: Take Your Electronics Project from Prototype to Product explains how to use this set of free, open-source electronics prototyping tools to lay out breadboards, create schematics, and design professional-quality printed circuit boards (PCBs). No engineering skills needed! Whether you're a hobbyist, artist, inventor, or student, you'll be able to develop a product from schematic to prototype to professional-quality printed circuit board, all from one easy-to-use software package. Fritzing works well with prototyping boards such as Arduino, Raspberry Pi, and BeagleBone. This DIY guide covers the whole lifecycle of product development for a hobbyist entrepreneur. It takes you from initial concept, to prototyping, to PCB production, to distribution. Along the way, it examines the sourcing of components, product testing, and even how to price products for wholesale and retail. Simon Monk is a bestselling TAB electronics author and popular presenter at MakerFaires Well-illustrated tutorial with screen captures, easy-to-follow instructions, and step-by-step projects Describes an up-to-date contemporary approach to PCB design, including surface-mount designs Explains how to become a maker entrepreneur by using crowdfunding and indie marketplaces for technical products

Looks at the techniques of interactive design, covering such topics as 2D and 3D graphics, sound, computer vision, and geolocation. The quick, easy way to leap into the fascinating world of physical computing This is no ordinary circuit board. Arduino allows anyone, whether you're an artist, designer, programmer or hobbyist, to learn about and play with electronics. Through this book you learn how to build a variety of circuits that can sense or control things in the real world. Maybe you'll prototype your own product or create a piece of interactive artwork? This book equips you with everything you'll need to build your own Arduino project, but what you make is up to you! If you're ready to bring your ideas into the real world or are curious about the possibilities, this book is for you. ? Learn by doing ? start building circuits and programming your Arduino with a few easy to follow examples - right away! ? Easy does it ? work through Arduino sketches line by line in plain

English, to learn of how a they work and how to write yourown ? Solder on! ? Only ever used a breadboard in the kitchen?Don't know your soldering iron from a curling iron? No problem,you'll be prototyping in no time ? Kitted out ? discover new and interesting hardware to makeyour Arduino into anything from a mobile phone to a geigercounter! ? Become an Arduino savant ? learn all about functions,arrays, libraries, shields and other tools of the trade to takeyour Arduino project to the next level. ? Get social ? teach your Arduino to communicate withsoftware running on a computer to link the physical world with thevirtual world It's hardware, it's software, it's fun! Start building the nextcool gizmo with Arduino and Arduino For Dummies.

Want to create devices that interact with the physical world? This cookbook is perfect for anyone who wants to experiment with the popular Arduino microcontroller and programming environment. You'll find more than 200 tips and techniques for building a variety of objects and prototypes such as IoT solutions, environmental monitors, location and position-aware systems, and products that can respond to touch, sound, heat, and light. Updated for the Arduino 1.8 release, the recipes in this third edition include practical examples and guidance to help you begin, expand, and enhance your projects right away—whether you're an engineer, designer, artist, student, or hobbyist. Get up to speed on the Arduino board and essential software concepts quickly Learn basic techniques for reading digital and analog signals Use Arduino with a variety of popular input devices and sensors Drive visual displays, generate sound, and control several types of motors Connect Arduino to wired and wireless networks Learn techniques for handling time delays and time measurement Apply advanced coding and memory-handling techniques

Rethink traditional teaching methods to improve student learning and retention in STEM Educational research has repeatedly shown that compared to traditional teacher-centered instruction, certain learner-centered methods lead to improved learning outcomes, greater development of critical high-level skills, and increased retention in science, technology, engineering, and mathematics (STEM) disciplines. Teaching and Learning STEM presents a trove of practical research-based strategies for designing and teaching STEM courses at the university, community college, and high school levels. The book draws on the authors' extensive backgrounds and decades of experience in STEM education and faculty development. Its engaging and well-illustrated descriptions will equip you to implement the strategies in your courses and to deal effectively with problems (including student resistance) that might occur in the implementation. The book will help you: Plan and conduct class sessions in which students are actively engaged, no matter how large the class is Make good use of technology in face-to-face, online, and hybrid courses and flipped classrooms Assess how well students are acquiring the knowledge, skills, and conceptual understanding the course is designed to teach Help students develop expert problem-solving skills and skills in communication, creative thinking, critical thinking, high-performance teamwork, and self-directed learning Meet the learning needs of STEM students with a broad diversity of attributes and backgrounds The strategies presented in Teaching and Learning STEM don't require revolutionary time-intensive changes in your teaching, but rather a gradual integration of traditional and new methods. The result will be continual improvement in your teaching and your students' learning. More information about Teaching and Learning STEM can be found at <http://educationdesignsinc.com/book> including its preface, foreword, table of contents, first chapter, a reading guide, and reviews in 10 prominent STEM education journals.

This hands-on guide will teach you all you need to know to bring your electronic inventions to life! This fully updated guide shows, step-by-step, how to disassemble, tweak, and re-purpose everyday devices for use in your own electronics creations. Written in the clear, easy-to-follow style that Dr. Simon Monk is famous for, this expanded edition includes coverage of both Arduino AND Raspberry Pi. Hacking Electronics: Learning Electronics with Arduino and Raspberry Pi, Second Edition, demonstrates each technique through fun DIY projects. Packed with full-color illustrations, photos, and diagrams, the book gets you up and running on your own projects right away. You will discover how to hack sensors, accelerometers, remote controllers, ultrasonic rangefinders, motors, stereo equipment, FM transmitters, and more. • Contains start-to-finish hacks for both Arduino AND Raspberry Pi! • Features new coverage of ready-made modules available online • Offers tips on working with Simon's hacking electronics kit

A major change has taken place at dance clubs worldwide: the advent of the VJ. Once the term denoted the presenter who introduced music videos on MTV, but now it defines an artist who creates and mixes video, live and in sync to music. This book looks at the artists at the forefront of this amazing audio-visual experience.

After the devastating tsunami in 2011, DYIers in Japan built their own devices to detect radiation levels, then posted their finding on the Internet. Right now, thousands of people worldwide are tracking environmental conditions with monitoring devices they've built themselves. You can do it too! This inspiring guide shows you how to use Arduino to create gadgets for measuring noise, weather, electromagnetic interference (EMI), water purity, and more. You'll also learn how to collect and share your own data, and you can experiment by creating your own variations of the gadgets covered in the book. If you're new to DIY electronics, the first chapter offers a primer on electronic circuits and Arduino programming. Use a special microphone and amplifier to build a reliable noise monitor Create a gadget to detect energy vampires: devices that use electricity when they're "off" Examine water purity with a water conductivity device Measure weather basics such as temperature, humidity, and dew point Build your own Geiger counter to gauge background radiation Extend Arduino with an Ethernet shield—and put your data on the Internet Share your weather and radiation data online through Pachube

This rigorous text shows electronics designers and students how to deploy Verilog in sophisticated digital systems design.The Second Edition is completely updated -- along with the many worked examples -- for Verilog 2001, new synthesis standards and coverage of the new OVI verification library.

This significant and uniquely comprehensive five-volume reference is a valuable source for research workers, practitioners, computer scientists, students, and technologists. It covers all of the major topics within the subject and offers a comprehensive treatment of MEMS design, fabrication techniques, and manufacturing methods. It also includes current medical applications of MEMS technology and provides applications of MEMS to opto-electronic devices. It is clearly written, self-contained, and accessible, with helpful standard features including an introduction, summary, extensive figures and design examples with comprehensive reference lists.

Arduino è il sogno di ogni hobbista: costa poco, lo trovi dappertutto ed è incredibilmente versatile. Sei un artista? Un designer? Un programmatore? O sei solo curioso? In questa guida aggiornata all'ultima release di Arduino troverai tutte le informazioni per imparare a usare questa piattaforma e creare oggetti straordinari. Scopri di quali attrezzi hai bisogno e dove trovarli, impara tutto quello che ti serve sapere di elettronica ed elettricità, apprendi come realizzare gli sketch, i programmi di Arduino, e molto altro!

Build your electronics workbench—and begin creating fun electronics projects right away Packed with hundreds of colorful diagrams and photographs, this book provides step-by-step instructions for experiments that show you how electronic components work, advice on choosing and using essential tools, and exciting projects you can build in 30 minutes or less. You'll get charged up as you transform theory into action in chapter after chapter! Circuit basics — learn what voltage is, where current flows (and doesn't flow), and how power is used in a circuit Critical components — discover how resistors, capacitors, inductors, diodes, and transistors control and shape electric current Versatile chips — find out how to use analog and digital integrated circuits to build complex projects with just a few parts Analyze circuits — understand the rules that govern current and voltage and learn how to apply them Safety tips — get a thorough grounding in how to protect yourself—and your electronics—from harm Electronics For Dummies (9781119675594) was previously published as Electronics For Dummies (9781119117971). While this version features a new Dummies cover and design, the content is the same as the prior release and should not be considered a new or updated product.

This book-and-DVD package blends practical information, including hardware and software tips, with cultural context and history. Additional chapters discuss relevant copyright issues and lessons from related fields such as film editing and improvisational theater.

Arduino Uno. Programmazione avanzata e libreria di sistemaArduino For DummiesHOEPLI EDITORE

Censored out of existence by Congress in the 1950s, rare comic book images--many of which have been rarely seen since they were first issued--are now revealed once again in all of their eye-popping inventive outrageousness. Original.

Minecraft + STEM = An unstoppable force for fun and learning! In Unofficial Minecraft STEM Lab for Kids, you'll find a collection of 48 creative, collaborative projects that make learning science, technology, engineering, and math exciting for the whole family. Venture off on six action-packed Quests, each with four unique Labs that pair a hands-on activity with an in-game project. Just a few of the exciting things you'll create and learn about: Hands-on activities: Concoct glow-in-the-dark slime Grow pipe cleaner snowflakes Design and build a model Martian habitat Mix milk and soap to create "fireworks" Make a working volcano Create an electromagnet In-game projects: Craft a laboratory to serve as your in-game headquarters Carve a crystal ice castle Construct a working dam Design and use a custom teleporter Build an underwater oceanographic field station Start with a lesson on terminology and gameplay, learn how to document Lab activities with sketchnoting, and meet five leading Minecraft experts who share how their experiences with the game have contributed to their success. The popular Lab for Kids series features a growing list of books that share hands-on activities and projects on a wide host of topics, including art, astronomy, clay, geology, math, and even how to create your own circus—all authored by established experts in their fields. Each lab contains a complete materials list, clear step-by-step photographs of the process, as well as finished samples. The labs can be used as singular projects or as part of a yearlong curriculum of experiential learning. The activities are open-ended, designed to be explored over and over, often with different results. Geared toward being taught or guided by adults, they are enriching for a range of ages and skill levels. Gain firsthand knowledge on your favorite topic with Lab for Kids.

The Maker's Manual is a practical and comprehensive guide to becoming a hero of the new industrial revolution. It features dozens of color images, techniques to transform your ideas into physical projects, and must-have skills like electronics prototyping, 3d printing, and programming. This book's clear, precise explanations will help you unleash your creativity, make successful projects, and work toward a sustainable maker business. Written by the founders of Frankenstein Garage, which has organized courses since 2011 to help makers to realize their creations, The Maker's Manual answers your questions about the Maker Movement that is revolutionizing the way we design and produce things.

This excellent addition to the UTiCS series of undergraduate textbooks provides a detailed and up to date description of the main principles behind the design and implementation of modern programming languages. Rather than focusing on a specific language, the book identifies the most important principles shared by large classes of languages. To complete this general approach, detailed descriptions of the main programming paradigms, namely imperative, object-oriented, functional and logic are given, analysed in depth and compared. This provides the basis for a critical understanding of most of the programming languages. An historical viewpoint is also included, discussing the evolution of programming languages, and to provide a context for most of the constructs in use today. The book concludes with two chapters which introduce basic notions of syntax, semantics and computability, to provide a completely rounded picture of what constitutes a programming language. /div

Explores more than 250 years of manufacturing history, arguing that the rise of China and India is not necessarily the death knell of the U.S., U.K., German and Japanese economies, if only those nations can adapt.

The bestselling beginner Arduino guide, updated with new projects! Exploring Arduino makes electrical engineering and embedded software accessible. Learn step by step everything you need to know about electrical engineering, programming, and human-computer interaction through a series of increasingly complex projects. Arduino guru Jeremy Blum walks you through each build, providing code snippets and schematics that will remain useful for future projects. Projects are accompanied by downloadable source code, tips and tricks, and video tutorials to help you master Arduino. You'll gain the skills you need to develop your own microcontroller projects! This new 2nd edition has been updated to cover the rapidly-expanding Arduino ecosystem, and includes new full-color graphics for easier reference. Servo motors and stepper motors are covered in richer detail, and you'll find more excerpts about technical details behind the topics covered in the book. Wireless connectivity and the Internet-of-Things are now more prominently featured in the advanced projects to reflect Arduino's growing capabilities. You'll learn how Arduino compares to its competition, and how to determine which board is right for your project. If you're ready to start creating, this book is your ultimate guide! Get up to date on the evolving Arduino hardware, software, and capabilities Build projects that interface with other devices—wirelessly! Learn the basics of electrical engineering and programming Access downloadable materials and source code for every project Whether you're a first-timer just starting out in electronics, or a pro

looking to mock-up more complex builds, Arduino is a fantastic tool for building a variety of devices. This book offers a comprehensive tour of the hardware itself, plus in-depth introduction to the various peripherals, tools, and techniques used to turn your little Arduino device into something useful, artistic, and educational. Exploring Arduino is your roadmap to adventure—start your journey today!

Rather than yet another project-based workbook, *Arduino: A Technical Reference* is a reference and handbook that thoroughly describes the electrical and performance aspects of an Arduino board and its software. This book brings together in one place all the information you need to get something done with Arduino. It will save you from endless web searches and digging through translations of datasheets or notes in project-based texts to find the information that corresponds to your own particular setup and question. Reference features include pinout diagrams, a discussion of the AVR microcontrollers used with Arduino boards, a look under the hood at the firmware and run-time libraries that make the Arduino unique, and extensive coverage of the various shields and add-on sensors that can be used with an Arduino. One chapter is devoted to creating a new shield from scratch. The book wraps up with detailed descriptions of three different projects: a programmable signal generator, a "smart" thermostat, and a programmable launch sequencer for model rockets. Each project highlights one or more topics that can be applied to other applications.

The greatest skill a trader can aspire to is to read pure price action without using any additional indicator. Forget about screens full of quantitative indicators or oscillators. Price action trading relies on a "less is more" approach in which the price is the only protagonist. In this book, we will see how to interpret the behavior of the price for any kind of financial market (Forex, Cryptocurrencies, Futures, Commodities, Stocks) trying to track the footprints left by buyers and sellers to understand the possible future direction of the price. What you will learn with this book How to spot and use Support and Resistance; How to identify and use Trendlines and Price Channels; The four Market Phases (Accumulation; Distribution; Trend) and the most important trend identification techniques; The six main characteristics of Price action; The three main characteristics of Japanese candlesticks (Shadows, Body, Close Price) and the psychology behind these formations; Two reversal patterns: Pin Bar and Engulfing; An introduction to Fibonacci Trading (Retracements, Extensions and probabilities of trend continuation); A simple but effective price action trading strategy; This book includes numerous figures and charts to help you in understand the concepts presented. The contents suit more for a discretionary trading rather than an algorithmic one.

This comprehensive resource, shows you everything you need to develop, compile, debug, and run Java programs. This expert guide has been updated for Java Platform Standard Edition 6 (Java SE 6) and offers complete coverage of the Java language, its syntax, keywords, and fundamental programming principles. Also find information on Java's key API libraries, learn to create applets and servlets, and use JavaBeans. The author has even included expanded coverage of Swing--the toolkit that defines the look and feel of the modern Java GUI.

The essential reference to SuperCollider, a powerful, flexible, open-source, cross-platform audio programming language. SuperCollider is one of the most important domain-specific audio programming languages, with potential applications that include real-time interaction, installations, electroacoustic pieces, generative music, and audiovisuals. The *SuperCollider Book* is the essential reference to this powerful and flexible language, offering students and professionals a collection of tutorials, essays, and projects. With contributions from top academics, artists, and technologists that cover topics at levels from the introductory to the specialized, it will be a valuable sourcebook both for beginners and for advanced users. SuperCollider, first developed by James McCartney, is an accessible blend of Smalltalk, C, and further ideas from a number of programming languages. Free, open-source, cross-platform, and with a diverse and supportive developer community, it is often the first programming language sound artists and computer musicians learn. The *SuperCollider Book* is the long-awaited guide to the design, syntax, and use of the SuperCollider language. The first chapters offer an introduction to the basics, including a friendly tutorial for absolute beginners, providing the reader with skills that can serve as a foundation for further learning. Later chapters cover more advanced topics and particular topics in computer music, including programming, sonification, spatialization, microsound, GUIs, machine listening, alternative tunings, and non-real-time synthesis; practical applications and philosophical insights from the composer's and artist's perspectives; and "under the hood," developer's-eye views of SuperCollider's inner workings. A Web site accompanying the book offers code, links to the application itself and its source code, and a variety of third-party extras, extensions, libraries, and examples.

An updated guide to programming your own Raspberry Pi projects Learn to create inventive programs and fun games on your powerful Raspberry Pi—with no programming experience required. This practical TAB book has been revised to fully cover the new Raspberry Pi 2, including upgrades to the Raspbian operating system. Discover how to configure hardware and software, write Python scripts, create user-friendly GUIs, and control external electronics. DIY projects include a hangman game, RGB LED controller, digital clock, and RasPiRobot complete with an ultrasonic rangefinder. Set up your Raspberry Pi and explore its features Navigate files, folders, and menus Write Python programs using the IDLE editor Use strings, lists, functions, and dictionaries Work with modules, classes, and methods Create user-friendly games using Pygame Build intuitive user interfaces with Tkinter Attach external electronics through the GPIO port Add powerful Web features to your projects

In this classic of modern science, the Nobel laureate presents a clear treatment of systems, the First and Second Laws of Thermodynamics, entropy, thermodynamic potentials, and much more. Calculus required.

From steep inclines to slick terrains, *Cycling Anatomy, Second Edition*, will ensure you are prepared for every challenge that comes your way. Using the same methods that elite cyclists use, you can employ this well-rounded collection of 89 strength and conditioning exercises to maximize cycling power, speed, and endurance to improve your cycling performance. Each exercise includes clear step-by-step descriptions and full-color anatomical illustrations that highlight the primary muscle being used. You'll find dozens of variations that use a wide range of training equipment so you can modify exercises to target specific areas, and minimize common cycling injuries. The *Cycling Focus* section of each exercise includes illustrations of the active muscles involved in cornering, climbing, descending, and sprinting to show you how the exercises are fundamentally linked to delivering maximum power to the pedals. Using tried-and-true strength training principles for all parts of the body, *Cycling Anatomy* will help you develop a training plan based on your individual needs and goals. Whether you're training for an upcoming century ride or just want to top that killer hill with strength to spare, *Cycling Anatomy* will help you reach top performance, avoid injury, and ensure you get the most out of every ride. CE exam available! For certified professionals, a companion continuing education exam can be completed after reading this book. *Cycling Anatomy, Second Edition Online CE Exam*, may be purchased separately or as part of

the Cycling Anatomy, Second Edition With CE Exam, package that includes both the book and the exam.

This book is both a high-level popularization and a critical appraisal of the methods scientists use to investigate the physical world. A comprehensive guide in developing and deploying high performance microservices with Rust Key Features Start your microservices journey and get a broader perspective on microservices development using RUST 2018, Build, deploy, and test microservices using AWS Explore advanced techniques for developing microservices such as actor model, Requests Routing, and threads Book Description Microservice architecture is sweeping the world as the de facto pattern for building web-based applications. Rust is a language particularly well-suited for building microservices. It is a new system programming language that offers a practical and safe alternative to C. This book describes web development using the Rust programming language and will get you up and running with modern web frameworks and crates with examples of RESTful microservices creation. You will deep dive into Reactive programming, and asynchronous programming, and split your web application into a set of concurrent actors. The book provides several HTTP-handling examples with manageable memory allocations. You will walk through stateless high-performance microservices, which are ideally suitable for computation or caching tasks, and look at stateful microservices, which are filled with persistent data and database interactions. As we move along, you will learn how to use Rust macros to describe business or protocol entities of our application and compile them into native structs, which will be performed at full speed with the help of the server's CPU. Finally, you will be taken through examples of how to test and debug microservices and pack them into a tiny monolithic binary or put them into a container and deploy them to modern cloud platforms such as AWS. What you will learn Get acquainted with leveraging Rust web programming Get to grips with various Rust crates, such as hyper, Tokio, and Actix Explore RESTful microservices with Rust Understand how to pack Rust code to a container using Docker Familiarize yourself with Reactive microservices Deploy your microservices to modern cloud platforms such as AWS Who this book is for This book is for developers who have basic knowledge of RUST, and want to learn how to build, test, scale, and manage RUST microservices. No prior experience of writing microservices in RUST is assumed.

Android è la piattaforma mobile più diffusa a livello mondiale, con più di un miliardo di device attivati e un ritmo di crescita vertiginoso. Lo scopo di questo libro è illustrare vari ambiti dello sviluppo avanzato di applicazioni Android, con particolare enfasi sulla user interface e sugli aspetti più ingegneristici. Mettendo in pratica le tecniche descritte nel volume il lettore sarà in grado di sviluppare applicazioni in modo professionale, sfruttando appieno il sistema operativo e le principali librerie disponibili sul mercato. Altri argomenti trattati nel libro sono: utilizzo di Bluetooth Low Energy, programmazione funzionale su Android con un particolare riferimento a RxJava, utilizzo di Android su device di tipologia diversa, dai wearable alle TV mediante il Chromecast, sicurezza delle applicazioni Android.

Create dynamic, feature-rich, and robust enterprise applications using the Spring framework

Presents an introduction to the open-source electronics prototyping platform.

"How much do you need to know about electronics to create something interesting, or creatively modify something that already exists? If you're in a technical field such as software development, and don't have much experience with electronics components, this hands-on reference helps you find answers to technical questions quickly. Filling the gap between a beginner's primer and a formal textbook, Practical Electronics: Components and Techniques explores aspects of electronic components and techniques that you would typically learn on the job and from years of experience. Even if you've worked with electronics, or have a background in electronics theory, you're bound to find important information that you may not have encountered before. Among the book's many topics, you'll discover how to: Read the data sheet for an electronic component ; Use a variety of tools involved with electronics work ; Assemble various types of connectors ; Minimize noise and interference on a signal interface circuit. Explore topics not usually covered in theoretical books, and go deeper into practical aspects than a step-by-step, project-oriented approach, with Practical Electronics: Components and Techniques." --

Wireless Hacking 101 - How to hack wireless networks easily! This book is perfect for computer enthusiasts that want to gain expertise in the interesting world of ethical hacking and that wish to start conducting wireless pentesting. Inside you will find step-by-step instructions about how to exploit WiFi networks using the tools within the known Kali Linux distro as the famous aircrack-ng suite. Topics covered: •Introduction to WiFi Hacking •What is Wardriving •WiFi Hacking Methodology •WiFi Mapping •Attacks to WiFi clients and networks •Defeating MAC control •Attacks to WEP, WPA, and WPA2 •Attacks to WPS •Creating Rogue AP's •MITM attacks to WiFi clients and data capture •Defeating WiFi clients and evading SSL encryption •Kidnapping sessions from WiFi clients •Defensive mechanisms

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