

## Internet Of Things With Sap Hana Build Your lot Use Case With Raspberry Pi Arduino Uno Hana Xsjs And Sapui5

This book offers a comprehensive guide to implementing SAP and HANA on private, public and hybrid clouds. Cloud computing has transformed the way organizations run their IT infrastructures: the shift from legacy monolithic mainframes and UNIX platforms to cloud based infrastructures offering ubiquitous access to critical information, elastic provisioning and drastic cost savings has made cloud an essential part of every organization's business strategy. Cloud based services have evolved from simple file sharing, email and messaging utilities in the past, to the current situation, where their improved technical capabilities and SLAs make running mission-critical applications such as SAP possible. However, IT professionals must take due care when deploying SAP in a public, private or hybrid cloud environment. As a foundation for core business operations, SAP cloud deployments must satisfy stringent requirements concerning their performance, scale and security, while delivering measurable improvements in IT efficiency and cost savings. The 2nd edition of "SAP on the Cloud" continues the work of its successful predecessor released in 2013, providing updated guidance for deploying SAP in public, private and hybrid clouds. To do so, it discusses the technical requirements and considerations necessary for IT professionals to successfully implement SAP software in a cloud environment, including best-practice architectures for IaaS, PaaS and SaaS deployments. The section on SAP's in-memory database HANA has been significantly extended to cover Suite on HANA (SoH) and the different incarnations of HANA Enterprise Cloud (HEC) and Tailored Datacenter Integration (TDI). As cyber threats are a significant concern, it also explores appropriate security models for defending SAP cloud deployments against modern and sophisticated attacks. The reader will gain the insights needed to understand the respective benefits and drawbacks of various deployment models and how SAP on the cloud can be used to deliver IT efficiency and cost-savings in a secure and agile manner.

Grab the top spot in your industry by seizing the power of IoT Smart products are everywhere. They're in our companies, in our homes, in our pockets. People love these products. But what they love more is what these products do—and for anyone running a business today, outcomes are the key. The Internet of Things (IoT) is the point of connection between products and the results they deliver—it's where products become software. IoT Inc. explains everything you need to know to position your company within this powerful new network. And once you do, you'll leave the competition in the dust. Founder and president of today's leading IoT business consulting firm, Bruce Sinclair has been helping companies develop IoT strategies for a decade—far longer than the term has even existed. This essential guide provides an in-depth look into IoT—how it works and how it is transforming business; methods for seeing your own business, customers, and competitors through the lens of IoT, and a deep dive into how to develop and implement a powerful IoT strategy. IoT isn't a new business trend. It's the new way of business. Period. The IoT wave is heading for your industry. You can either meet it head-on, and ride it to success, or you can turn your back and let it swamp you. This is your playbook for transforming your company into a major player in the IoT Outcome economy.

The 15 chapters in this book explore the theoretical as well as a number of technical research outcomes on all aspects of UAVs. UAVs has widely differing applications such as disaster management, structural inspection, goods delivery, transportation, localization, mapping, pollution and radiation monitoring, search and rescue, farming, etc. The advantages of using UAVs are countless and have led the way for the full integration of UAVs, as intelligent objects into the IoT system. The book covers cover such subjects as: Efficient energy management systems in UAV based IoT networks IoE enabled UAVs Mind-controlled UAV using Brain-Computer Interface (BCI) The importance of AI in realizing autonomous and intelligent flying IoT Blockchain-based solutions for various security issues in UAV-enabled IoT The challenges and threats of UAVs such as hijacking, privacy, cyber-security, and physical safety.

The Internet of Things is changing the world. Thingalytics by Dr. John Bates is the most powerful book written to date about the Internet of Things (IoT), showing businesses how to take advantage of the fast Big Data that flows across the digital planet. Pulling from exciting examples of real-life innovation and invention, John makes IoT come alive. From digitally enriching exotic shops in Istanbul, Turkey, to crossing the USA on a sensor-enabled Greyhound Bus to finding new ways to mend people in hospital smart operating rooms, Thingalytics depicts how IoT can make our lives happier, easier, more productive and even safer. Thingalytics, a composite of "Things" and "Analytics," shows businesses how to use real-time analytics and algorithms in order to seize the opportunities that flow from IoT, while simultaneously spotting and navigating around threats. As each real world object – from people to refrigerators, to tractors and ships or cans of fizzy pop - is digitized and connected to the Internet, it presents a unique opportunity for innovative businesses to learn from, and take advantage of, the digital vibrations it creates. Illustrated by case studies from global, visionary organizations such as Coca Cola, Greyhound Bus and Medtronic, Thingalytics highlights how the alchemy of real-time analytics and smart algorithms can help turn fast Big Data into actionable gold nuggets for any business, anywhere. Digital disruption to traditional "bricks-and-mortar" businesses is happening now.

Organizations must transform themselves using digital technologies. Time does not stand still in this brave, new digital world. "Digital Darwinism is unkind to those who wait," says R "Ray" Wang, a leading industry analyst who has written the Foreword to Thingalytics. John Bates personally interviewed each of the people in this book. His deep knowledge of their vision, their businesses and their goals gives him the insight and the gravitas to explain how each organization is conquering the digital world. Winners in the IoT race will not only profit but could – just possibly – avert disaster. Thingalytics becomes very exciting when we see how lives can be saved, fraud avoided, customers delighted and carbon emissions reduced.

The industrial internet is a new and upcoming technology that is changing the practices of organizations and corporations everywhere. Through research and application, opportunities can arise from implementing these new systems and devices. The Internet of Things in the Modern Business Environment is an essential reference source for the latest scholarly research on varying aspects of the interworking of smart devices within a business setting and explores the impact of these devices on company operations and models. Featuring extensive coverage on a broad range of topics such as supply chain management, information sharing, and data analytics, this publication is ideally designed for researchers, managers, and students seeking current research on the expansion of technology in commerce.

Developers! Make the grade with this SAP Cloud Platform certification study guide. From application development and integration to mobile services and the Internet of Things, this guide will review the key technical and functional knowledge you need to pass with flying colors. Explore test methodology, key concepts for each topic area, and practice questions and answers to

solidify your knowledge. Your path to SAP Cloud Platform certification begins here! a. Test Structure Prepare with up-to-date information on each topic covered in the C\_CP\_13 exam, including application development, extension, and integration. b. Core Content Review major subject areas like architecture, the Cloud Foundry and Neo development environments, SAP Cloud Platform Internet of Things, and SAP Cloud Platform Mobile Services. Then dial in with important terminology, and key takeaways for each subject. c. Q&A After reviewing chapters, test your skills with in-depth questions and answers for each section and improve your test-taking skills. 1) C\_CP\_13 2) Architecture 3) Development, extension, and integration 4) SAP Cloud Platform Mobile Services 5) SAP Cloud Platform Internet of Things 6) SAP Cloud Platform SDK 7) SAP Cloud Platform SDK for the Neo environment 8) Cloud Foundry 9) Java 10) SAP HANA XS 11) SAPUI5

"SAP R/3 Reporting" shows how to deliver effective reports for every area of the enterprise. It's the first book to focus specifically on SAP R/3 reporting. Curran begins by introducing SAP R/3's key information systems, data resources, and business processes. Next, he reviews specific reports for financials, logistics, HR, asset management, and shows how to build reports that are readable, accurate, and timely. Finally, Curran introduces ActiveSheets, third-party software that streamlines reporting by working through Microsoft Excel. A working ActiveSheets demo is included on CD-ROM.

This book presents SAP Next-Gen, an innovation community for SAP Leonardo. It is intended for next generation business leaders, Chief Digital Officers, Chief Innovation Officers, Chief Information Officers and IT professionals who are defining the vision, strategy, technologies and organizational changes needed to drive their exponential enterprise and to innovate with purpose. The book opens with an introduction to turning bold ideas into reality with a purpose-driven mindset supporting the 17 United Nations Global Goals. Part 1 focuses on what's at stake including Digital - The New Normal, Exponential Growth, and Innovation in the 21st century. Part 2 introduces readers to the SAP Next-Gen matchmaking model, and readers are invited to join SAP Next-Gen clubs for industries, technologies, and methodologies. Readers also learn about the Silicon Valleys of the world, make vs. buy vs. join, and where to learn more and get engaged with SAP Next-Gen. SAP Next-Gen is an innovation community for SAP Leonardo supporting SAP's 355,000+ customers across 25 industries in 180+ countries. SAP Next-Gen enables customers and partners to connect with academic thought leaders, researchers, and students in the SAP Next-Gen network of 3,200+ educational institutions across 111 countries worldwide, as well as with startups, tech community partners, venture firms, purpose driven partners, and SAP experts.

Are you ready to build smart applications? See how to develop IoT apps and manage devices with SAP Leonardo and SAP Cloud Platform. Then, perform real-time data processing and analysis with SAP Edge Services. Walk through the configuration steps for edge scenarios, and learn how SAP partner solutions can be used in conjunction with SAP Leonardo. Explore relevant use cases, and envision what IoT can bring to your business! In this book, you'll learn about: a. Internet of Things Technologies Discover the solutions SAP provides for IoT. See how SAP Leonardo Internet of Things, SAP Edge Services, and SAP Cloud Platform Internet of Things support IoT applications during development, implementation, and analysis. b. Application Development Develop IoT applications, step by step. Learn how to model digital twins using the Thing Modeler, configure and onboard devices, define rules and actions, export IoT data to SAP Analytics Cloud, and more. c. Business Use Cases See IoT in action with practical use cases. Consider challenges and best practices for SAP Leonardo Internet of Things and SAP Edge Services so that your business is prepared to make the most of the IoT. Highlights Include: 1) SAP Leonardo Internet of Things 2) SAP Edge Services 3) SAP Cloud Platform Internet of Things 4) Application modeling 5) Digital twins 6) Device connectivity 7) Rules and actions 8) Analytics 9) Configuration 10) Interoperability 11) Use cases

SAP S/4HANA is here, and the stakes are high. Get your project right with this guide to SAP Activate! Understand the road ahead: What are the phases of SAP Activate? Which activities happen when? Start by setting up a working system, then walk through guided configuration, and learn how to deploy SAP S/4HANA in your landscape: on-premise, cloud, or hybrid. Take advantage of SAP Activate's agile methodology, and get the guidance you need for a smooth and successful go-live! In this book, you'll learn about: a. Foundations Get up to speed with SAP Activate. Learn about key concepts like fit-to-standard and fit/gap analysis, understand the methodology, and walk through the key phases of project management. b. Tools and Technologies Open up your SAP Activate toolkit. See how to access SAP Activate content with SAP Best Practices Explorer, SAP Solution Manager, and more. Then, use SAP Best Practices and SAP Model Company to set up a working system for your workshops. c. Deployment Deploy SAP S/4HANA, step by step. Follow detailed instructions to plan, prepare for, and execute your on-premise or cloud deployment activities according to SAP Activate. Walk through key scenarios for a hybrid implementation of SAP S/4HANA in your landscape. Highlights Include: 1) Deployment 2) Guided configuration 3) Agile project delivery 4) SAP Best Practices 5) SAP Model Company 6) Organizational change management 7) SAP S/4HANA 8) SAP S/4HANA Cloud 9) Hybrid landscapes 10) C\_ACTIVATE05 certification

Current hype aside, the Internet of Things will ultimately become as fundamental as the Internet itself, with lots of opportunities and trials along the way. To help you navigate these choppy waters, this practical guide introduces a dedicated methodology for businesses preparing to transition towards IoT-based business models. With a set of best practices based on case study analysis, expert interviews, and the authors' own experience, the Ignite | IoT Methodology outlined in this book delivers actionable guidelines to assist you with IoT strategy management and project execution. You'll also find a detailed case study of a project fully developed with this methodology. This book consists of three parts: Illustrative case studies of selected IoT domains, including smart energy, connected vehicles, manufacturing and supply chain management, and smart cities The Ignite | IoT Methodology for defining IoT strategy, preparing your organization for IoT adoption, and planning and executing IoT projects A detailed case study of the IIC Track & Trace testbed, one of the first projects to be fully developed according to the Ignite | IoT Methodology

Looking to innovate, transform processes, or just get more from your data? This guide to SAP Leonardo shows you how new technologies--from machine learning to

blockchain--intersect with existing processes to transform your business. You'll walk through practical examples of SAP Leonardo tools at work in manufacturing, product management, logistics, finance, and more. From using machine learning for smart manufacturing to leveraging IoT and big data for a connected fleet, you'll get the hands-on introduction to SAP Leonardo you've been looking for Highlights include: -SAP Leonardo Analytics -SAP Leonardo Big Data -SAP Leonardo Blockchain -SAP Leonardo Internet of Things -SAP Leonardo Machine Learning -Data intelligence -Manufacturing and assets -Products and inventory -Logistics -Finance

We called this book The Silent Intelligence because most of the activity and growth in the space has so far been happening outside of mainstream visibility. We hope that our book will help executives, entrepreneurs, investors and everybody else better understand the opportunities and challenges of the Internet of Things and will get them as excited about the upcoming possibilities as we are."--pub. desc.

"This book is the definitive guide for SAP NetWeaver BI professionals. Based on their extraordinary expertise with the product, the authors provide deep insights about key innovations in the areas of user experience, query performance, integrated planning, and enterprise-wide data warehousing." —Stefan Sigg, Vice President, SAP NetWeaver Business Intelligence The long-anticipated publication of this second edition reflects the growing success of SAP NetWeaver as well as the various Business Intelligence (BI) capabilities that are embedded with SAP BW version 7.0. Written by SAP insiders, this comprehensive guide takes into account the ever-changing features, functionality, and toolsets of SAP NetWeaver to bring you the most updated information on how to use SAP BW to design, build, deploy, populate, access, analyze, present, and administer data. You'll discover the options that are available in SAP NetWeaver and uncover a new means to improve business performance. This book reflects the process an organization goes through during an implementation of the software. The authors begin with an introduction to BI and SAP NetWeaver and quickly progress to information modeling and enterprise data warehouse concepts. You'll learn how to access and deliver meaningful analytic information to the organization, as well as perform integrated planning functions. Finally, the authors share invaluable insight on warehouse administration, performance, and security. With more than 50 percent new or revised material, this second edition of Mastering the SAP Business Information Warehouse shows you how to: Extract data from online transaction processing systems Store transformed data in a way that best supports reporting and analysis Use the various Business Explorer tools such as BEx Report Designer, BEx Analyzer, BEx Broadcaster, and BEx Web Application Designer Schedule, monitor, troubleshoot, and archive data loads The companion Web site contains sample chapters in Wiki format and the authors' blog where readers may enter discussions about the book and SAP. Wiley Technology Publishing Timely. Practical. Reliable. Visit our Web site at [www.wiley.com/compbooks/](http://www.wiley.com/compbooks/) Visit the companion Web site at [www.wiley.com/compbooks/mcdonald](http://www.wiley.com/compbooks/mcdonald) The companion Web site contains the sample code presented in the text of the book, plus implementation templates.

Take a deep dive into SAP Fiori and discover Fiori architecture, Fiori landscape installation, Fiori standard applications, Fiori Launchpad configuration, tools for developing Fiori applications and extending standard Fiori applications. You will learn: Fiori architecture and its applications Setting up a Fiori landscape and Fiori Launchpad Configuring, customizing and enhancing standard Fiori applications Developing Fiori native applications for mobile Internet of Things-based custom Fiori applications with the HANA cloud platform Bince Mathew, a SAP mobility expert working for an MNC in Germany, shows you how SAP Fiori, based on HTML5 technology, addresses the most widely and frequently used SAP transactions like purchase order approvals, sales order creation, information lookup, and self-service tasks. This set of HTML5 apps provides a very simple and accessible experience across desktops, tablets, and smartphones. Prerequisites and steps for setting up a Fiori landscape and Launchpad Fiori standard application configuration Extending and customizing standard Fiori applications Developing custom Fiori applications from scratch Building custom Fiori applications for Internet Of Things using HANA cloud Fiori apps with cordova and kapsel plugins

"Are you ready to build smart applications? See how to develop IoT apps and manage devices with SAP Leonardo and SAP Cloud Platform. Then, perform real-time data processing and analysis with SAP Edge Services. Walk through the configuration steps for edge scenarios, and learn how SAP partner solutions can be used in conjunction with SAP Leonardo. Explore relevant use cases, and envision what IoT can bring to your business!"--

Summary A hands-on guide that will teach how to design and implement scalable, flexible, and open IoT solutions using web technologies. This book focuses on providing the right balance of theory, code samples, and practical examples to enable you to successfully connect all sorts of devices to the web and to expose their services and data over REST APIs. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Because the Internet of Things is still new, there is no universal application protocol. Fortunately, the IoT can take advantage of the web, where IoT protocols connect applications thanks to universal and open APIs. About the Book Building the Web of Things is a guide to using cutting-edge web technologies to build the IoT. This step-by-step book teaches you how to use web protocols to connect real-world devices to the web, including the Semantic and Social Webs. Along the way you'll gain vital concepts as you follow instructions for making Web of Things devices. By the end, you'll have the practical skills you need to implement your own web-connected products and services. What's Inside Introduction to IoT protocols and devices Connect electronic actuators and sensors (GPIO) to a Raspberry Pi Implement standard REST and Pub/Sub APIs with Node.js on embedded systems Learn about IoT protocols like MQTT and CoAP and integrate them to the Web of Things Use the Semantic Web (JSON-LD, RDFa, etc.) to discover and find Web Things Share Things via Social Networks to create the Social Web of Things Build a web-based smart home with HTTP and WebSocket Compose physical mashups with EVERYTHING, Node-RED, and IFTTT About the Reader For both seasoned programmers and those with only basic programming skills. About the Authors Dominique Guinard and Vlad Trifa pioneered the Web of Things and cofounded EVERYTHING, a large-scale IoT cloud powering billions of Web Things. Table of Contents PART 1 BASICS OF THE IOT AND THE WOT From the Internet of Things to the Web of Things Hello, World Wide Web of Things Node.js for the Web of Things Getting started with embedded systems Building

networks of Things PART 2 BUILDING THE WOT Access: Web APIs for Things Implementing Web Things Find: Describe and discover Web Things Share: Securing and sharing Web Things Enter the fast-paced world of SAP HANA 2.0 with this introductory guide. Begin with an exploration of the technological backbone of SAP HANA as a database and platform. Then, step into key SAP HANA user roles and discover core capabilities for administration, application development, advanced analytics, security, data integration, and more. No matter how SAP HANA 2.0 fits into your business, this book is your starting point. In this book, you'll learn about: a. Technology Discover what makes an in-memory database platform. Learn about SAP HANA's journey from version 1.0 to 2.0, take a tour of your technology options, and walk through deployment scenarios and implementation requirements. b. Tools Unpack your SAP HANA toolkit. See essential tools in action, from SAP HANA cockpit and SAP HANA studio, to the SAP HANA Predictive Analytics Library and SAP HANA smart data integration. c. Key Roles Understand how to use SAP HANA as a developer, administrator, data scientist, data center architect, and more. Explore key tasks like backend programming with SQLScript, security setup with roles and authorizations, data integration with the SAP HANA Data Management Suite, and more. Highlights include: 1) Architecture 2) Administration 3) Application development 4) Analytics 5) Security 6) Data integration 7) Data architecture 8) Data center

Learn to build cloud applications from the ground up using SAP Cloud Platform. Explore the Neo and Cloud Foundry development environments; pick your backend language from a selection including Java, Node.js, and ABAP; and create a frontend with SAPUI5 and SAP Fiori, and more. Once your app is ready to run, secure, test, and monitor it before delivery and implementation. Then find out how to integrate essential SAP Cloud Platform services like the SAP Leonardo toolset. Take your apps to the next level a. Application Development Learn the ins and outs of application development, from Java, Node.js, Python, SAP HANA XS, SAP HANA XSA, and ABAP in the backend. For the frontend, explore SAPUI5, SAP Fiori, and SAP Web IDE. b. Lifecycle Management Secure and monitor applications, set up a continuous delivery and continuous integration pipeline, and implement DevOps best practices. c. Microservices Integrate your applications with SAP Cloud Platform microservices like Internet of Things 4.0, machine learning, and blockchain from the SAP Leonardo toolset. 1) SAP Cloud Platform 2) Neo Environment 3) Cloud Foundry 4) Microservices 5) Frontend and backend development 6) Application lifecycle management 7) SAP Leonardo 8) Java 9) SAPUI5 10) CI/CD 11) DevOps IoT is all the rage, and SAP HANA can help you get on the bandwagon. In this book, find out how to use Smart Data Streaming to accept real-time data from a variety of sources, apply business logic and analysis to the data, store the results, and generate real-time alerts.

Change has always been and will be the key component of progress. All change is hard at first, messy in the middle but gorgeous in the last. In this book, we are going to show the journey and the steps we went through to achieve something that is changing the world. Internet of Things needs no introduction. It is the capability of connecting real life objects to enable them to achieve greater value and service by exchanging data and information. As per Forbes, this is now the most talked technology, beating big data (dated May 2015) and this is not a temporary hype, but the beginning of an era, which will stay for the next 5-10 years. Internet of Things is not a new radical concept that just came into existence now but in reality, it is a capability that is possible only now, due to the advances in database technology like SAP HANA, increased bandwidth, reduced size, and power consumption of devices. Few years back, we started testing the waters by looking into different ways in which we could connect different components, in order to create a basic use-case application of Internet of Things. It looked like a quadratic equation with many solutions but to reduce the complexity we stuck to KISS principle and kept it simple to bring together all the information required to get started, in no time.

The Internet of Things (IoT) is an emerging network superstructure that will connect physical resources and actual users. It will support an ecosystem of smart applications and services bringing hyper-connectivity to our society by using augmented and rich interfaces. Whereas in the beginning IoT referred to the advent of barcodes and Radio Frequency Identification (RFID), which helped to automate inventory, tracking and basic identification, today IoT is characterized by a dynamic trend toward connecting smart sensors, objects, devices, data and applications. The next step will be "cognitive IoT," facilitating object and data re-use across application domains and leveraging hyper-connectivity, interoperability solutions and semantically enriched information distribution. The Architectural Reference Model (ARM), presented in this book by the members of the IoT-A project team driving this harmonization effort, makes it possible to connect vertically closed systems, architectures and application areas so as to create open interoperable systems and integrated environments and platforms. It constitutes a foundation from which software companies can capitalize on the benefits of developing consumer-oriented platforms including hardware, software and services. The material is structured in two parts. Part A introduces the general concepts developed for and applied in the ARM. It is aimed at end users who want to use IoT technologies, managers interested in understanding the opportunities generated by these novel technologies, and system architects who are interested in an overview of the underlying basic models. It also includes several case studies to illustrate how the ARM has been used in real-life scenarios. Part B then addresses the topic at a more detailed technical level and is targeted at readers with a more scientific or technical background. It provides in-depth guidance on the ARM, including a detailed description of a process for generating concrete architectures, as well as reference manuals with guidelines on how to use the various models and perspectives presented to create a concrete architecture. Furthermore, best practices and tips on how system engineers can use the ARM to develop specific IoT architectures for dedicated IoT solutions are illustrated and exemplified in reverse mapping exercises of existing standards and platforms.

This new volume looks at the electrifying world of blockchain technology and how it has been revolutionizing the Internet of Things and cyber-physical systems. Aimed primarily at business users and developers who are considering blockchain-based projects, the volume provides a comprehensive introduction to the theoretical and practical aspects of blockchain technology. It presents a selection of chapters on topics that cover new information on blockchain and bitcoin security, IoT security threats and attacks, privacy issues, fault-tolerance mechanisms, and more. Some major software packages are discussed, and it also addresses the legal issues currently affecting the field. The information presented here is relevant to current and future problems relating to blockchain technology and will provide the tools to build efficient decentralized applications. Blockchain technology and the IoT can profoundly change how the world—and businesses—work, and this book provides a window into the current world of blockchain. No longer limited to just Bitcoin, blockchain technology has spread into many sectors and into a significant number of different technologies.

Building Intelligent Enterprises by leveraging the emerging and next-generation technologies to accelerate the adoption of digital transformation The speed of innovation and emerging IT

technologies are changing at a very fast pace and enterprises are eager to join the digital revolution so they can stand above the competition and succeed as the enterprise of tomorrow. This book is an attempt to make the enterprise intelligent by providing the path to digital transformation and the adoption of new IT methods, tools and technologies. This book has been organized to cover the following topics: Digital Transformation, Design Thinking, Agile, DevOps, Robotic Process Automation, Internet of Things, Artificial Intelligence, Machine Learning, Blockchain, Drones, Augmented and Virtual Reality, 3D Printing, Big Data, Analytics, Cloud Computing, APIs, and SAP Leonardo. No prior knowledge of any technical coding or language is necessary to understand the content of this book. End-to-end storyline to accelerate the enterprise's digital transformation journey How an enterprise can stay relevant, compete, and perform in the digital economy How to leverage these technologies to build intelligent enterprises Understand and apply the emerging technologies across key business processes Industry-specific Use Cases for all technologies as a reference point to build the business case for implementation The book is very well suited towards the C-Suite executives, both IT and business leaders, directors and managers, project managers, solution architects, and all professionals who have an interest and desire to keep up-to-date with the latest technological trends, looking for a career change, want to help enterprise adapt and onboard the digital roadmap, or have an agenda to digitize key processes within the enterprise to make it intelligent.

This book constitutes the thoroughly refereed post-conference proceedings of the First Future Internet Symposium, FIS 2008, held in Vienna, Austria, in September 2008. The 10 revised full papers presented together with 4 invited papers were carefully reviewed and selected from numerous submissions. The papers address novel ideas and current research results related to the future internet infrastructure, user-generated content, content visualization, usability, trust and security, collaborative workflows, the internet of services and service science.

This contributed volume discusses diverse topics to demystify the rapidly emerging and evolving blockchain technology, the emergence of integrated platforms and hosted third-party tools, and the development of decentralized applications for various business domains. It presents various applications that are helpful for research scholars and scientists who are working toward identifying and pinpointing the potential of as well as the hindrances to this technology.

Austin Sincock provides step-by-step real-world examples for developing Enterprise Java applications on SAP. His is the first title that uses open-source software to help developers learn and use Java for SAP. Bridges the gap between SAP's language ABAP and object-oriented Java Provides a complete look at SAP's Java connector, JCo Demonstrates graphical application development for SAP using Java's Swing libraries Shows how to deploy and build Java applications on the Tomcat Java application server Teaches how to deploy the Java-based HypersonicSQL database, use SQL to populate the database, and tie the external database into an SAP system with Java

Internet of Things with SAP Implementation and Development SAP Press

This book comprehensively describes an end-to-end Internet of Things (IoT) architecture that is comprised of devices, network, compute, storage, platform, applications along with management and security components. It is organized into five main parts, comprising of a total of 11 chapters. Part I presents a generic IoT reference model to establish a common vocabulary for IoT solutions. This includes a detailed description of the Internet protocol layers and the Things (sensors and actuators) as well as the key business drivers to realize the IoT vision. Part II focuses on the IoT requirements that impact networking protocols and provides a layer-by-layer walkthrough of the protocol stack with emphasis on industry progress and key gaps. Part III introduces the concept of Fog computing and describes the drivers for the technology, its constituent elements, and how it relates and differs from Cloud computing. Part IV discusses the IoT services platform, the cornerstone of the solution followed by the Security functions and requirements. Finally, Part V provides a treatment of the topic of connected ecosystems in IoT along with practical applications. It then surveys the latest IoT standards and discusses the pivotal role of open source in IoT. "Faculty will find well-crafted questions and answers at the end of each chapter, suitable for review and in classroom discussion topics. In addition, the material in the book can be used by engineers and technical leaders looking to gain a deep technical understanding of IoT, as well as by managers and business leaders looking to gain a competitive edge and understand innovation opportunities for the future." Dr. Jim Spohrer, IBM "This text provides a very compelling study of the IoT space and achieves a very good balance between engineering/technology focus and business context. As such, it is highly-recommended for anyone interested in this rapidly-expanding field and will have broad appeal to a wide cross-section of readers, i.e., including engineering professionals, business analysts, university students, and professors." Professor Nasir Ghani, University of South Florida

This book comprehensively conveys the theoretical and practical aspects of IoT and big data analytics with the solid contributions from practitioners as well as academicians. This book examines and expounds the unique capabilities of the big data analytics platforms in capturing, cleansing and crunching IoT device/sensor data in order to extricate actionable insights. A number of experimental case studies and real-world scenarios are incorporated in this book in order to instigate our book readers. This book Analyzes current research and development in the domains of IoT and big data analytics Gives an overview of latest trends and transitions happening in the IoT data analytics space Illustrates the various platforms, processes, patterns, and practices for simplifying and streamlining IoT data analytics The Internet of Things and Big Data Analytics: Integrated Platforms and Industry Use Cases examines and accentuates how the multiple challenges at the cusp of IoT and big data can be fully met. The device ecosystem is growing steadily. It is forecast that there will be billions of connected devices in the years to come. When these IoT devices, resource-constrained as well as resource-intensive, interact with one another locally and remotely, the amount of multi-structured data generated, collected, and stored is bound to grow exponentially. Another prominent trend is the integration of IoT devices with cloud-based applications, services, infrastructures, middleware solutions, and databases. This book examines the pioneering technologies and tools emerging and evolving in order to collect, pre-process, store, process and analyze data heaps in order to disentangle actionable insights.

Internet of Things: Technologies and Applications for a New Age of Intelligence outlines the background and overall vision for the Internet of Things (IoT) and Cyber-Physical Systems (CPS), as well as associated emerging technologies. Key technologies are described including device communication and interactions, connectivity of devices to cloud-based infrastructures, distributed and edge computing, data collection, and methods to derive information and knowledge from connected devices and systems using artificial intelligence and machine learning. Also included are system architectures and ways to integrate these with enterprise architectures, and considerations on potential business impacts and regulatory requirements. Presents a

comprehensive overview of the end-to-end system requirements for successful IoT solutions Provides a robust framework for analyzing the technology and market requirements for a broad variety of IoT solutions Covers in-depth security solutions for IoT systems Includes a detailed set of use cases that give examples of real-world implementation

This book gathers a collection of high-quality peer-reviewed research papers presented at the 2nd International Conference on Data and Information Sciences (ICDIS 2019), held at Raja Balwant Singh Engineering Technical Campus, Agra, India, on March 29–30, 2019. In chapters written by leading researchers, developers, and practitioner from academia and industry, it covers virtually all aspects of computational sciences and information security, including central topics like artificial intelligence, cloud computing, and big data. Highlighting the latest developments and technical solutions, it will show readers from the computer industry how to capitalize on key advances in next-generation computer and communication technology.

**BIG DATA ANALYTICS FOR INTERNET OF THINGS** Discover the latest developments in IoT Big Data with a new resource from established and emerging leaders in the field Big Data Analytics for Internet of Things delivers a comprehensive overview of all aspects of big data analytics in Internet of Things (IoT) systems. The book includes discussions of the enabling technologies of IoT data analytics, types of IoT data analytics, challenges in IoT data analytics, demand for IoT data analytics, computing platforms, analytical tools, privacy, and security. The distinguished editors have included resources that address key techniques in the analysis of IoT data. The book demonstrates how to select the appropriate techniques to unearth valuable insights from IoT data and offers novel designs for IoT systems. With an abiding focus on practical strategies with concrete applications for data analysts and IoT professionals, Big Data Analytics for Internet of Things also offers readers: A thorough introduction to the Internet of Things, including IoT architectures, enabling technologies, and applications An exploration of the intersection between the Internet of Things and Big Data, including IoT as a source of Big Data, the unique characteristics of IoT data, etc. A discussion of the IoT data analytics, including the data analytical requirements of IoT data and the types of IoT analytics, including predictive, descriptive, and prescriptive analytics A treatment of machine learning techniques for IoT data analytics Perfect for professionals, industry practitioners, and researchers engaged in big data analytics related to IoT systems, Big Data Analytics for Internet of Things will also earn a place in the libraries of IoT designers and manufacturers interested in facilitating the efficient implementation of data analytics strategies.

**SAP BTP, ABAP environment** requires specialized knowledge of language limits and development environment--let this book be your guide! Begin by provisioning a trial instance and setting up ABAP Development Tools in Eclipse. Then, walk step-by-step through building an app using the ABAP RESTful application programming model, developing backend services, and creating SAP Fiori apps. Connect your cloud-based ABAP applications to on-premise and cloud systems and learn how to manage and maintain those applications. ABAP's not dead, it's in the cloud! Highlights include: 1) ABAP Development Tools in Eclipse 2) SAP BTP, Cloud Foundry environment 3) ABAP RESTful application programming model 4) Application development 5) Backend services 6) SAP Fiori 7) Consuming APIs 8) Identity and access management 9) Application lifecycle management 10) Monitoring and security

Many of the initial developments towards the Internet of Things have focused on the combination of Auto-ID and networked infrastructures in business-to-business logistics and product lifecycle applications. However, the Internet of Things is more than a business tool for managing business processes more efficiently and more effectively – it will also enable a more convenient way of life. Since the term Internet of Things first came to attention when the Auto-ID Center launched their initial vision for the EPC network for automatically identifying and tracing the flow of goods within supply-chains, increasing numbers of researchers and practitioners have further developed this vision. The authors in this book provide a research perspective on current and future developments in the Internet of Things. The different chapters cover a broad range of topics from system design aspects and core architectural approaches to end-user participation, business perspectives and applications.

**Put machine learning to work in SAP S/4HANA!** Get started by reviewing your available tools and implementation options. Then, learn how to set up services, train models, and manage applications. Discover how machine learning is implemented in key lines of business, from finance to sales. With details on extensibility and related SAP Cloud Platform services, you'll find everything you need to make the most of machine learning! In this book, you'll learn about: a. Tools and Technologies Get to know the machine learning toolkit you can use to consume models: SAP HANA, SAP Cloud Platform, SAP Analytics Cloud, SAP Intelligent Robotic Process Automation, and more. b. Technical Implementation Perform the technical setup in SAP S/4HANA. Learn how to implement key services, train machine learning models, and manage applications, from data integration to user interface design. c. Business Implementation See how machine learning improves your lines of business. Explore machine learning in SAP S/4HANA business processes for finance, procurement, sales, inventory, and more. Highlights Include: 1) Predictive analytics 2) Predictive intelligence 3) Tools and technologies 4) Architecture 5) Embedded services 6) Technical implementation 7) Business implementation 8) Extensibility 9) SAP HANA 10) SAP Cloud Platform 11) SAP Analytics Cloud

This book constitutes the refereed proceedings of the First International Conference for Industry and Academia on the Internet of Things, IOT 2008, held in Zurich, Switzerland, in March 2008. The 23 revised full papers presented were carefully reviewed and selected from 92 initial submissions. The papers are organized in topical sections on EPC network, middleware, business aspects, RFID technology and regulatory issues, applications, and sensing systems.

**Internet of Things in Biomedical Engineering** presents the most current research in Internet of Things (IoT) applications for clinical patient monitoring and treatment. The book takes a systems-level approach for both human-factors and the technical aspects of networking, databases and privacy. Sections delve into the latest advances and cutting-edge technologies, starting with an overview of the Internet of Things and biomedical engineering, as well as a focus on 'daily life.' Contributors from various experts then discuss 'computer assisted anthropology,' CLOUDFALL, and image guided surgery, as well as bio-informatics and data mining. This comprehensive coverage of the industry and technology is a perfect resource for students and researchers interested in the topic. Presents recent advances in IoT for biomedical engineering, covering biometrics, bioinformatics, artificial intelligence, computer vision and various network applications Discusses big data and data mining in healthcare and other IoT based biomedical data analysis Includes discussions on a variety of IoT applications and medical information systems Includes case studies and applications, as well as examples on how to automate data analysis with Perl R in IoT

This book outlines the background and overall vision for the Internet of Things (IoT) and Machine-to-Machine (M2M) communications and services, including major standards. Key technologies are described, and include everything from physical instrumentation of devices to the cloud infrastructures used to collect data. Also included is how to derive information and knowledge, and how to integrate it into enterprise processes, as well as system architectures and regulatory requirements. Real-world service use case studies provide the hands-on knowledge needed to successfully develop and implement M2M and IoT technologies sustainably and profitably. Finally, the future vision for M2M technologies is described, including prospective changes in relevant standards. This book is written by experts in the technology and business aspects of Machine-to-Machine and Internet of Things, and who have experience in implementing solutions. Standards included: ETSI M2M, IEEE 802.15.4, 3GPP (GPRS, 3G, 4G), Bluetooth Low Energy/Smart, IETF 6LoWPAN, IETF CoAP, IETF RPL, Power Line Communication, Open Geospatial Consortium (OGC) Sensor Web Enablement (SWE), ZigBee, 802.11, Broadband Forum TR-069, Open Mobile Alliance (OMA) Device Management (DM), ISA100.11a, WirelessHART, M-BUS, Wireless M-BUS, KNX, RFID, Object Management Group (OMG) Business Process Modelling Notation

(BPMN) Key technologies for M2M and IoT covered: Embedded systems hardware and software, devices and gateways, capillary and M2M area networks, local and wide area networking, M2M Service Enablement, IoT data management and data warehousing, data analytics and big data, complex event processing and stream analytics, knowledge discovery and management, business process and enterprise integration, Software as a Service and cloud computing Combines both technical explanations together with design features of M2M/IoT and use cases. Together, these descriptions will assist you to develop solutions that will work in the real world Detailed description of the network architectures and technologies that form the basis of M2M and IoT Clear guidelines and examples of M2M and IoT use cases from real-world implementations such as Smart Grid, Smart Buildings, Smart Cities, Participatory Sensing, and Industrial Automation A description of the vision for M2M and its evolution towards IoT  
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