Data As A Service A Framework For Providing Reusable Enterprise Data Services

Cyberchondria is characterized by a pattern of excessive health-based search behaviors that are likely to increase health anxiety or distress, heightened by ever-increasing access to and normalization of technology use and the internet specifically. The internet can be a source of valuable medical information and is an efficient vehicle for awareness-raising and dissemination; however, it can increase anxiety in audiences without medical knowledge or training and can pose a challenge to the traditional gatekeepers of medical knowledge and expertise. Technological advances are accelerating rapidly; however, concomitant to this acceleration, an epidemic of online mis- and dis-information that has the capacity to negatively impact general health, health literacy, and health behaviors globally now exists. The World Health Organization (WHO) has described this information overload as an infodemic. The Handbook of Research on Cyberchondria, Health Literacy, and the Role of Media in Society's Perception of Medical Information covers a wide range of topics from the characteristics and prevalence of cyberchondria to the pandemic policy response and cybersecurity issues relating to eHealth initiatives and pandemic-related surges in cybercrime. Therefore, this publication has transdisciplinary relevance to professionals from healthcare, government, law enforcement, academia, the technology sector, media, cybersecurity, and education. Graduate and undergraduate students may also find it to be a beneficial resource, not only in terms of the study of cyberchondria but also in terms of the psychological and sociological implications of global crisis events. One of the key messages of this book is as follows: All stakeholders must work together strategically to disseminate authentic public health messages during any global health crisis. They must work to reduce health-related anxiety mediated by technology and seek to improve critical thinking skills and global health literacy.

Many enterprises are investing in a next-generation data lake, hoping to democratize data at scale to provide business insights and ultimately make automated intelligent decisions. In this practical book, author Zhamak Dehghani reveals that, despite the time, money, and effort poured into them, data warehouses and data lakes fail when applied at the scale and speed of today's organizations. A distributed data mesh is a better choice. Dehghani guides architects, technical leaders, and decision makers on their journey from monolithic big data architecture to a paradigm that draws from modern distributed architecture. A data mesh considers domains as a first-class concern, applies platform thinking to create self-serve data infrastructure, and treats data as a product. This book shows you why and how. Examine the current landscape of data architectures, their underlying characteristics, and failure modes Learn how to divide data (and its supporting technology stacks and architecture) into operational data and analytical data Get a complete introduction to data mesh principles and logical architecture Create a foundation for gaining value from analytical data and historical facts at scale Move beyond a monolithic data lake to a distributed data mesh

The efficient management of a consistent and integrated database is a central task in modern IT and highly relevant for science and industry. Hardly any critical enterprise solution comes without any functionality for managing data in its different forms. Web-Scale Data Management for the Cloud addresses fundamental challenges posed by the need and desire to provide database functionality in the context of the Database as a Service (DBaaS) paradigm for database outsourcing. This book also discusses the motivation of the new paradigm of cloud computing, and its impact to data outsourcing and service-oriented computing in data-intensive applications. Techniques with respect to the support in the current cloud environments, major challenges, and future trends are covered in the last section of this book. A survey addressing the techniques and special requirements for building database services are provided in this book as well.

This book constitutes the refereed proceedings of the 4th International Conference on Soft Computing in Data Science, SCDS 2018, held in Bangkok, Thailand, in August 2018. The 30 revised full papers presented were carefully reviewed and selected from 75 submissions. The papers are organized in topical sections on machine and deep learning, image processing, financial and fuzzy mathematics, optimization algorithms, data and text analytics, data visualization.

Big Data and Mobility as a Service

Towards Software Development (Volume 4)

Build modern data warehouses on Microsoft Azure

UGC NET Paper-1 Study Material for Comprehension, Communication, ICT & Environment

Proceedings of the 13th International Conference on P2P, Parallel, Grid, Cloud and Internet Computing (3PGCIC-2018)

IBM Cloud Pak for Data

Delivering Data-Driven Value at Scale

Build end-to-end AI solutions with IBM Cloud Pak for Data to operationalize AI on a secure platform based on cloud-native reliability, cost-effective multitenancy, and efficient resource management Key Features Explore data virtualization by accessing data in real time without moving it Unify the data and AI experience with the integrated end-to-end platform Explore the AI life cycle and learn to build, experiment, and operationalize trusted AI at scale Book Description Cloud Pak for Data is IBM's modern data and AI platform that includes strategic offerings from its data and AI portfolio delivered in a cloud-native fashion with the flexibility of deployment on any cloud. The platform offers a unique

approach to addressing modern challenges with an integrated mix of proprietary, open-source, and third-party services. You'll begin by getting to grips with key concepts in modern data management and artificial intelligence (AI), reviewing real-life use cases, and developing an appreciation of the AI Ladder principle. Once you've gotten to grips with the basics, you will explore how Cloud Pak for Data helps in the elegant implementation of the AI Ladder practice to collect, organize, analyze, and infuse data and trustworthy AI across your business. As you advance, you'll discover the capabilities of the platform and extension services, including how they are packaged and priced. With the help of examples present throughout the book, you will gain a deep understanding of the platform, from its rich capabilities and technical architecture to its ecosystem and key go-to-market aspects. By the end of this IBM book, you'll be able to apply IBM Cloud Pak for Data's prescriptive practices and leverage its capabilities to build a trusted data foundation and accelerate AI adoption in your enterprise. What you will learn Understand the importance of digital transformations and the role of data and AI platforms Get to grips with data architecture and its relevance in driving AI adoption using IBM's AI Ladder Understand Cloud Pak for Data, its value proposition, capabilities, and unique differentiators Delve into the pricing, packaging, key use cases, and competitors of Cloud Pak for Data Use the Cloud Pak for Data ecosystem with premium IBM and third-party services Discover IBM's vibrant ecosystem of proprietary, open-source, and third-party offerings from over 35 ISVs Who this book is for This book is for data scientists, data stewards, developers, and data-focused business executives interested in learning about IBM's Cloud Pak for Data. Knowledge of technical concepts related to data science and familiarity with data analytics and AI initiatives at various levels of maturity are required to make the most of this book.

A professional's guide to solving complex problems while designing modern software Key Features Learn best practices for designing enterprise-grade software systems Understand the importance of building reliable, maintainable, and scalable systems Become a professional software architect by learning the most effective software design patterns and architectural concepts Book Description As businesses are undergoing a digital transformation to keep up with competition, it is now more important than ever for IT professionals to design systems to keep up with the rate of change while maintaining stability. This book takes you through the architectural patterns that power enterprise-grade software systems and the key architectural elements that enable change such as events, autonomous services, and micro frontends, along with demonstrating how to implement and operate anti-fragile systems. You'll divide up a system and define boundaries so that teams can work autonomously and accelerate the pace of innovation. The book also covers low-level event and data patterns that support the entire architecture, while getting you up and running with the different autonomous service design patterns. As you progress, you'll focus on best practices for security, reliability, testability, observability, and performance. Finally, the book combines all that you've learned, explaining the methodologies of continuous experimentation, deployment, and delivery before providing you with some final thoughts on how to start making progress. By the end of this book, you'll be able to architect your own event-driven, serverless systems that are ready to adapt and change so that you can deliver value at the pace needed by your business. What you will learn Explore architectural patterns to create anti-fragile systems that thrive with change Focus on DevOps practices that empower self-sufficient, full-stack teams Build enterprise-scale serverless systems Apply microservices principles to the frontend Discover how SOLID principles apply to software and database architecture Create event stream processors that power the event sourcing and CQRS pattern Deploy a multi-regional system, including regional health checks, latency-based routing, and replication Explore the Strangler pattern for migrating legacy systems Who this book is for This book is for software architects and aspiring software architects who want to learn about different patterns and best practices to design better software. Intermediate-level experience in software development and design is required. Beginner-level knowledge of the cloud will also help you get the most out of this software design book.

A practical guide to implementing a scalable and fast state-of-the-art analytical data estate Key Features Store and analyze data with enterprise-grade security and auditing Perform batch, streaming, and interactive analytics to optimize your big data solutions with ease Develop and run parallel data processing programs using real-world enterprise scenarios Book Description Azure Data Lake, the modern data warehouse architecture, and related data services on Azure enable organizations to build their own customized analytical platform to fit any analytical requirements in terms of volume, speed, and quality. This book is your guide to learning all the features and capabilities of Azure data services for storing, processing, and analyzing data (structured, unstructured, and semi-structured) of any size. You will explore key techniques for ingesting and storing data and perform batch, streaming, and interactive analytics. The book also shows you how to overcome various challenges and complexities relating to productivity and scaling. Next, you will be able to develop and run massive data workloads to perform different actions. Using a cloud-based big data-modern data warehouse-analytics setup, you will also be able to build secure, scalable data estates for enterprises. Finally, you will not only learn how to develop a data warehouse but also understand how to create enterprise-grade security and auditing big data programs. By the end of this Azure book, you will have learned how to develop a powerful and efficient analytical platform to meet enterprise needs. What you will learn Implement data governance with Azure services Use integrated monitoring in the Azure Portal and integrate Azure Data Lake Storage into the Azure Monitor Explore the serverless feature for ad-hoc data discovery, logical data warehousing, and data wrangling Implement networking with Synapse Analytics and Spark pools Create and run Spark jobs with Databricks clusters Implement streaming using Azure Functions, a serverless runtime environment on Azure Explore the predefined ML services in Azure and use them in your app Who this book is for This book is for data architects, ETL developers, or anyone who wants to get well-versed with Azure data services to implement an analytical data estate for their enterprise. The book will also appeal to data scientists and data analysts who want to explore all the capabilities of Azure data services, which can be used to store, process, and analyze any kind of data. A beginner-level

understanding of data analysis and streaming will be required.
This book reports on the latest advances on the theories, practices, standards and strategies that are
related to the modern technology paradigms, the Mobile Cloud computing (MCC) and Big Data, as the
pillars and their association with the emerging 5G mobile networks. The book includes 15 rigorously
refereed chapters written by leading international researchers, providing the readers with technical
and scientific information about various aspects of Big Data and Mobile Cloud Computing, from basic
concepts to advanced findings, reporting the state-of-the-art on Big Data management. It demonstrates
and discusses methods and practices to improve multi-source Big Data manipulation techniques, as well
as the integration of resources availability through the 3As (Anywhere, Anything, Anytime) paradigm,
using the 5G access technologies.
Yearbook of Statistics 2016
Advances on P2P, Parallel, Grid, Cloud and Internet Computing
Intelligent Data Analysis
Site Reliability Engineering
Data Mesh
Grid and Pervasive Computing
Handbook of Research on Cloud Computing and Big Data Applications in IoT

This book constitutes the refereed proceedings of the 8th International Conference on Grid and Pervasive Computing, GPC 2013, held in Seoul, Korea, in May 2013 and the following colocated workshops: International Workshop on Ubiquitous and Multimedia Application Systems, UMAS 2013; International Workshop DATICS-GPC 2013: Design, Analysis and Tools for Integrated Circuits and Systems; and International Workshop on Future Science Technologies and Applications, FSTA 2013. The 111 revised papers were carefully reviewed and selected from numerous submissions. They have been organized in the following topical sections: cloud, cluster and grid; middleware resource management; mobile peer-to-peer and pervasive computing; multi-core and high-performance computing; parallel and distributed systems; security and privacy; ubiquitous communications, sensor networking, and RFID; ubiquitous and multimedia application systems; design, analysis and tools for integrated circuits and systems; future science technologies and applications; and green and human information technology.

Although the use of cloud computing platforms and applications has expanded rapidly, most books on the subject focus on high-level concepts. There has long been a need for a book that provides detailed guidance on how to develop secure clouds. Filling this void, Developing and Securing the Cloud provides a comprehensive overview of cloud computing technology. Supplying step-by-step instruction on how to develop and secure cloud computing platforms and web services, it includes an easy-to-understand, basic-level overview of cloud computing and its supporting technologies. Presenting a framework for secure cloud computing development, the book describes supporting technologies for the cloud such as web services and security. It details the various layers of the cloud computing framework, including the virtual machine monitor and hypervisor, cloud data storage, cloud data management, and virtual network monitor. It also provides several examples of cloud products and prototypes, including private, public, and U.S. government clouds. Reviewing recent developments in cloud computing, the book illustrates the essential concepts, issues, and challenges in developing and securing today's cloud computing platforms and applications. It also examines prototypes built on experimental cloud computing systems that the author and her team have developed at the University of Texas at Dallas. This diverse reference is suitable for those in industry, government, and academia. Technologists will develop the understanding required to select the appropriate tools for particular cloud applications. Developers will discover alternative designs for cloud development, and managers will understand if it's best to build their own clouds or contract them out.

The digital enterprise has resulted in an explosion of data, and data volumes are expected to grow in zettabyte scale in the next few years. This explosive growth is largely fueled by unstructured data, such as video, social media, photos, and text. IBM® Cloud Object Storage (previously known as Cleversafe®) provides organizations the flexibility, scalability, and simplicity required to store, manage, and access today's rapidly growing unstructured data. Cloud Object Storage (COS) provides access to your unstructured data via a self-service portal from anywhere in the world with RESTful APIs, including OpenStack Swift API and S3-compatible API, enterprise availability, and security. IBM COS is available in the following deployment models: Private on-premises object storage Dedicated object storage (single-tenant) Public object storage (multi-tenant) Hybrid object storage (a mix of on-premises, dedicated or public offerings) This IBM Redbooks® publication focuses on the IBM COS public offering, IBM COS Public Services, and hybrid solutions leveraging this offering. This book is for solution developers, architects, and IT specialists who are implementing Cloud Object Storage solutions.

In this collection of essays and articles, key members of Google's Site Reliability Team explain how and why their commitment to the entire lifecycle has enabled the company to successfully build, deploy, monitor, and maintain some of the largest software systems in the world.

The Big Ideas Behind Reliable, Scalable, and Maintainable Systems

Principles of Incident Response and Disaster Recovery

Architecting for innovation with events, autonomous services, and micro frontends

Design Patterns for Cloud Native Applications

A Service Engineering Method for Knowledge-Intense Person-Oriented Services

The Enterprise Big Data Lake

Windows Azure Platform

Today, cloud computing, big data, and the internet of things (IoT) are becoming indubitable parts of modern information and communication systems. They cover not only information and communication technology but also all types of systems in society including within the realms of business, finance, industry, manufacturing, and management. Therefore, it is critical to remain up-to-date on the latest advancements and applications, as well as current issues and challenges. The Handbook of Research on Cloud Computing and Big Data Applications in IoT is a pivotal reference source that provides relevant theoretical frameworks and the latest empirical research findings on principles, challenges, and applications of cloud computing, big data, and IoT. While highlighting topics such as fog computing, language interaction, and scheduling

algorithms, this publication is ideally designed for software developers, computer engineers, scientists, professionals, academicians, researchers, and students.

Information Technology for Management, 12 Edition provides students with a comprehensive understanding of the latest technological developments in IT and the critical drivers of business performance, growth, and sustainability. Integrating feedback from IT managers and practitioners from top-level organizations worldwide, the newest edition of this well-regarded textbook features thoroughly revised content throughout to present students with a realistic, up-to-date view of IT management in the current business environment. The text offers a flexible, student-friendly presentation of the material through a pedagogy that is designed to help students with different learning styles easily comprehend and retain information. This blended learning approach combines visual, textual, and interactive content—featuring numerous real-world case studies of how businesses use IT to increase efficiency and productivity, strengthen collaboration and communication, and maximize their competitive advantage. Students learn how IT is leveraged to reshape enterprises, engage and retain customers, optimize systems and processes, manage business relationships and projects, and more.

With the immense cost savings and scalability the cloud provides, the rationale for building cloud native applications is no longer in question. The real issue is how. With this practical guide, developers will learn about the most commonly used design patterns for building cloud native applications using APIs, data, events, and streams in both greenfield and brownfield development. You'll learn how to incrementally design, develop, and deploy large and effective cloud native applications that you can manage and maintain at scale with minimal cost, time, and effort. Authors Kasun Indrasiri and Sriskandarajah Suhothayan highlight use cases that effectively demonstrate the challenges you might encounter at each step. Learn the fundamentals of cloud native applications Explore key cloud native communication, connectivity, and composition patterns Learn decentralized data management techniques Use event-driven architecture to build distributed and scalable cloud native applications Explore the most commonly used patterns for API management and consumption Examine some of the tools and technologies you'll need for building cloud native systems

This book describes how the creation of new digital services—through vertical and horizontal integration of data coming from sensors on top of existing legacy systems—that has already had a major impact on industry is now extending to healthcare. The book describes the fourth industrial revolution (i.e. Health 4.0), which is based on virtualization and service aggregation. It shows how sensors, embedded systems, and cyber-physical systems are fundamentally changing the way industrial processes work, their business models, and how we consume, while also affecting the health and care domains. Chapters describe the technology behind the shift of point of care to point of need and away from hospitals and institutions; how care will be delivered virtually outside hospitals; that services will be tailored to individuals rather than being designed as statistical averages; that data analytics will be used to help patients to manage their chronic conditions with help of smart devices; and that pharmaceuticals will be interactive to help prevent adverse reactions. The topics presented will have an impact on a variety of healthcare stakeholders in a continuously global and hyper-connected world. · Presents explanations of emerging topics as they relate to e-health, such as Industry 4.0, Precision Medicine, Mobile Health, 5G, Big Data, and Cyber-physical systems; · Provides overviews of technologies in addition to possible application scenarios and market conditions; · Features comprehensive demographic and statistic coverage of Health 4.0 presented in a graphical manner.

Patterns for Scalable Infrastructure and Applications in a Dynamic Environment
Information Technology for Management
Health 4.0: How Virtualization and Big Data are Revolutionizing Healthcare
Designing Data-Intensive Applications
Cloud Security and Privacy
From Data Gathering to Data Comprehension
Soft Computing in Data Science

Data-driven insights are a key competitive advantage for any industry today, but deriving insights from raw data can still take days or weeks. Most organizations can't scale data science teams fast enough to keep up with the growing amounts of data to transform. What's the answer? Self-service data. With this practical book, data engineers, data scientists, and team managers will learn how to build a self-service data science platform that helps anyone in your organization extract insights from data. Sandeep Uttamchandani provides a scorecard to track and address bottlenecks that slow down time to insight across data discovery, transformation, processing, and production. This book bridges the gap between data scientists bottlenecked by engineering realities and data engineers unclear about ways to make self-service work. Build a self-service portal to support data discovery, quality, lineage, and governance Select the best approach for each self-service capability using open source cloud technologies Tailor self-service for the people, processes, and technology maturity of your data platform Implement capabilities to democratize data and reduce time to insight Scale your self-service portal to support a large number of users within your organization

Big data has presented a number of opportunities across industries. With these opportunities come a number of challenges associated with handling, analyzing, and storing large data sets. One solution to this challenge is cloud computing, which supports a massive storage and computation facility in order to accommodate big data processing. Managing and Processing Big Data in Cloud Computing explores the challenges of supporting big data processing and cloud-based platforms as a proposed solution. Emphasizing a number of crucial topics such as data analytics, wireless networks, mobile clouds, and machine learning, this publication meets the research needs of data analysts, IT professionals, researchers, graduate students, and educators in the areas of data science, computer programming, and IT development.

The LNCS journal Transactions on Large-Scale Data- and Knowledge-Centered Systems focuses on data management, knowledge discovery, and knowledge processing, which are core and hot topics in computer science. Since the 1990s, the Internet has become the main driving force behind application development in all domains. An increase in the demand for resource sharing across different sites connected through networks has led to an evolution of data- and knowledge-management systems from centralized systems to decentralized systems enabling large-scale distributed applications providing high scalability. Current decentralized systems still focus on data and knowledge as their main resource. Feasibility of these systems relies basically on P2P (peer-to-peer) techniques and the support of agent systems with scaling and decentralized control. Synergy between Grids, P2P systems, and agent technologies is the key to data- and knowledge-centered systems in large-scale environments. This special issue of Transactions on Large-Scale Data- and Knowledge-Centered Systems highlights some of the major challenges emerging from the biomedical applications that are currently inspiring and promoting database research. These include the management, organization, and integration of massive amounts of heterogeneous data; the semantic gap between high-level research questions and low-level data; and privacy and efficiency. The contributions cover a

large variety of biological and medical applications, including genome-wide association studies, epidemic research, and neuroscience.

This book includes the outcomes of the International Conference on Advanced Intelligent Systems for Sustainable Development (AI2SD-2018), held in Tangier, Morocco on July 12–14, 2018. Presenting the latest research in the field of computing sciences and information technology, it discusses new challenges and provides valuable insights into the field, the goal being to stimulate debate, and to promote closer interaction and interdisciplinary collaboration between researchers and practitioners. Though chiefly intended for researchers and practitioners in advanced information technology management and networking, the book will also be of interest to those engaged in emerging fields such as data science and analytics, big data, internet of things, smart networked systems, artificial intelligence, expert systems and cloud computing.

Designing for Change - a Developing Country Perspective
An Enterprise Perspective on Risks and Compliance
Data-Centric Business and Applications
Cloud Scale Analytics with Azure Data Services
Telecommunication/ICT Indicators 2006-2015
Public Health Informatics
Volume 2

You may regard cloud computing as an ideal way for your company to control IT costs, but do you know how private and secure this service really is? Not many people do. With Cloud Security and Privacy, you'll learn what's at stake when you trust your data to the cloud, and what you can do to keep your virtual infrastructure and web applications secure. Ideal for IT staffers, information security and privacy practitioners, business managers, service providers, and investors alike, this book offers you sound advice from three well-known authorities in the tech security world. You'll learn detailed information on cloud computing security that-until now-has been sorely lacking. Review the current state of data security and storage in the cloud, including confidentiality, integrity, and availability Learn about the identity and access management (IAM) practice for authentication, authorization, and auditing of the users accessing cloud services Discover which security management frameworks and standards are relevant for the cloud Understand the privacy aspects you need to consider in the cloud, including how they compare with traditional computing models Learn the importance of audit and compliance functions within the cloud, and the various standards and frameworks to consider Examine security delivered as a service-a different facet of cloud security

The Windows Azure Platform has rapidly established itself as one of the most sophisticated cloud computing platforms available. With Microsoft working to continually update their product and keep it at the cutting edge, the future looks bright—if you have the skills to harness it. In particular, new features such as remote desktop access, dynamic content caching and secure content delivery using SSL make the latest version of Azure a more powerful solution than ever before. It's widely agreed that cloud computing has produced a paradigm shift in traditional architectural concepts by providing new ways to both store and process data. The basic concepts of the cloud are now well understood throughout the industry. What is much less well understood, and the primary focus of this book, is how the the Windows Azure technology can be applied in real-world scenarios and made to work for you. This book answers those questions, demonstrating how all the features of Windows Azure—both old and new—can be put to work. By the time you're done reading, you will be comfortable building high-quality end-to-end Windows Azure services of your own. The book, like the Azure platform itself, is divided into three key parts—Windows Azure, SQL Azure, and Windows Azure AppFabric. Each of these plays a unique role in the functioning of your cloud service. It is the goal of this book to show you how to use these components, both separately and together, to build flawless cloud applications as well as hybrid architectures that fit in alongside your business' existing systems. Pro Windows Azure Platform, Second Edition is a down-to-earth, code-centric book that shows precisely how the all the components of Windows Azure are employed, and demonstrates the techniques and best practices you'll need to put them to work.

Cloud native infrastructure is more than servers, network, and storage in the cloud—it is as much about operational hygiene as it is about elasticity and scalability. In this book, you'll learn practices, patterns, and requirements for creating infrastructure that meets your needs, capable of managing the full life cycle of cloud native applications. Justin Garrison and Kris Nova reveal hard-earned lessons on architecting infrastructure from companies such as Google, Amazon, and Netflix. They draw inspiration from projects adopted by the Cloud Native Computing Foundation (CNCF), and provide examples of patterns seen in existing tools such as Kubernetes. With this book, you will: Understand why cloud native infrastructure is necessary to effectively run cloud native applications Use guidelines to decide when—and if—your business should adopt cloud native practices Learn patterns for deploying and managing infrastructure and applications Design tests to prove that your infrastructure works as intended, even in a variety of edge cases Learn how to secure infrastructure with policy as code

Enterprises are experimenting with using Hadoop to build Big Data Lakes, but many projects are stalling or failing because the approaches that worked at Internet companies have to be adopted for the enterprise. This practical handbook guides managers and IT professionals from the initial research and decision-making process through planning, choosing products, and implementing, maintaining, and governing the modern data lake. You'll explore various approaches to starting and growing a Data Lake, including Data Warehouse off-loading, analytical sandboxes, and "Data Puddles." Author Alex Gorelik shows you methods for setting up different tiers of data, from raw untreated landing areas to carefully managed and summarized data. You'll learn how to enable self-service to help users find, understand, and provision data; how to provide different interfaces to users with different skill levels; and how to do all of that in compliance with enterprise data governance policies.

Handbook of Research on Cyberchondria, Health Literacy, and the Role of Media in Society's Perception of Medical Information
Developments in Information & Knowledge Management for Business Applications
Economic implications and regulatory challenges
Cloud Native Infrastructure

Software Architecture Patterns for Serverless Systems
Developing and Securing the Cloud
Driving Digital Transformation to Increase Local and Global Performance, Growth and Sustainability

Over the last three decades enormous effort has gone into strengthening public health information systems (HIS). They are now a key element of health sector reform initiatives, but are growing in complexity. This is driven by the increasing diversity of technology platforms, increasing demands for information, the multitude of actors involved, and the need for data security and privacy. Initiatives like Universal Health Coverage and Prevention of Non-Communicable Diseases are expected to place further burdens on all health systems. However, they will pose particular challenges in resource-constrained settings, such as low- and middle-income countries (LMICs), where health systems have struggled to provide quality care. Public Health Informatics discusses the challenges that exist in the design, development, and implementation of HIS. Key problem areas, such as sub-adequate data and problems of inter-operability, are analysed in detail and the book looks at possible approaches to addressing these challenges in LMICs. Case studies critically appraise the experiences of countries and health programmes in the building of HISs, to determine the successes and failures of varying approaches. Finally, the book explores how future systems in developing countries can be shaped. The expert author team has two decades experience in over 30 LMICs, and includes researchers and practitioners from the fields of informatics, public health, and medicine. This uniquely comprehensive account of information systems in the public health setting will be of use to the wide range of people working in this broad cross-disciplinary field, from software developers to public health practitioners and researchers.

Society is now completely driven by data with many industries relying on data to conduct business or basic functions within the organization. With the efficiencies that big data bring to all institutions, data is continuously being collected and analyzed. However, data sets may be too complex for traditional data-processing, and therefore, different strategies must evolve to solve the issue. The field of big data works as a valuable tool for many different industries. The Research Anthology on Big Data Analytics, Architectures, and Applications is a complete reference source on big data analytics that offers the latest, innovative architectures and frameworks and explores a variety of applications within various industries. Offering an international perspective, the applications discussed within this anthology feature global representation. Covering topics such as advertising curricula, driven supply chain, and smart cities, this research anthology is ideal for data scientists, data analysts, computer engineers, software engineers, technologists, government officials, managers, CEOs, professors, graduate students, researchers, and academicians.

Data is at the center of many challenges in system design today. Difficult issues need to be figured out, such as scalability, consistency, reliability, efficiency, and maintainability. In addition, we have an overwhelming variety of tools, including relational databases, NoSQL datastores, stream or batch processors, and message brokers. What are the right choices for your application? How do you make sense of all these buzzwords? In this practical and comprehensive guide, author Martin Kleppmann helps you navigate this diverse landscape by examining the pros and cons of various technologies for processing and storing data. Software keeps changing, but the fundamental principles remain the same. With this book, software engineers and architects will learn how to apply those ideas in practice, and how to make full use of data in modern applications. Peer under the hood of the systems you already use, and learn how to use and operate them more effectively Make informed decisions by identifying the strengths and weaknesses of different tools Navigate the trade-offs around consistency, scalability, fault tolerance, and complexity Understand the distributed systems research upon which modern databases are built Peek behind the scenes of major online services, and learn from their architectures

Keine Angaben
Advanced Intelligent Systems for Sustainable Development (AI2SD'2018)
Best Practices for Transforming Legacy IT
Web-Scale Data Management for the Cloud
Managing and Processing Big Data in Cloud Computing
Delivering the Promise of Big Data and Data Science
Data as a Service
4th International Conference, SCDS 2018, Bangkok, Thailand, August 15-16, 2018, Proceedings

Despite the buzz surrounding the cloud computing, only a small percentage of organizations have actually deployed this new style of IT—so far. If you're planning your long-term cloud strategy, this practical book provides insider knowledge and actionable real-world lessons regarding planning, design, operations, security, and application transformation. This book teaches business and technology managers how to transition their organization's traditional IT to cloud computing. Rather than yet another book trying to sell or convince readers on the benefits of clouds, this book provides guidance, lessons learned, and best practices on how to design, deploy, operate, and secure an enterprise cloud based on real-world experience. Author James Bond provides useful guidance and best-practice checklists based on his field experience with real customers and cloud providers. You'll view cloud services from the perspective of a consumer and as an owner/operator of an enterprise private or hybrid cloud, and learn valuable lessons from successful and less-than-successful organization use-case scenarios. This is the information every CIO needs in order to make the business and technical decisions to finally execute on their journey to cloud computing. Get updated trends and definitions in cloud computing, deployment models, and for building or buying cloud services Discover challenges in cloud operations and management not foreseen by early adopters Use real-world lessons to plan and build an enterprise private or hybrid cloud Learn how to assess, port, and migrate legacy applications to the cloud Identify security threats and vulnerabilities unique to the cloud Employ a cloud management system for your enterprise (private or multi-provider hybrid) cloud ecosystem Understand the challenges for becoming an IT service broker leveraging the power of the cloud

Big Data and Mobility as a Service explores MaaS platforms that can be adaptable to the ever-evolving mobility environment. It looks at multi-mode urban crowd data to assess urban mobility characteristics, their shared transportation potential, and their performance conditions and constraints. The book analyzes the roles of multimodality, travel behavior, urban mobility dynamics

and participation. Combined with insights on using big data to analyze market and policy decisions, this book is an essential tool for urban transportation management researchers and practitioners. Summarizes current fundamental MaaS technologies Shows how to utilize anonymous big data for transportation analysis and problem-solving Illustrates, with data-enabled shared transportation service examples from different countries, the similarities and differences within a global urban mobility framework This is the 42nd edition of the Yearbook of Statistics. The data included in the Yearbook have been collected and processed by the Telecommunication Development Bureau (BDT) from replies received to ITU questionnaires sent to telecommunication ministries or regulators and national statistics offices. As such, the ITU Yearbook of Statistics provides the most authoritative source of data about the evolution of the telecommunication sector, the availability of ICTs in households and usage of ICTs by individuals.

This book presents the latest research findings, as well as innovative theoretical and practical research results, methods and development techniques related to P2P, grid, cloud and Internet computing. It also reveals the synergies among such large scale computing paradigms. P2P, Grid, Cloud and Internet computing technologies have rapidly become established as breakthrough paradigms for solving complex problems by enabling aggregation and sharing of an increasing variety of distributed computational resources on a large scale. Grid computing originated as a paradigm for high-performance computing, offering an alternative to expensive supercomputers through different forms of large-scale distributed computing. P2P computing emerged as a new paradigm following on from client-server and web-based computing and has proved useful in the development of social networking, B2B (Business to Business), B2C (Business to Consumer), B2G (Business to Government), and B2E (Business to Employee). Cloud computing has been described as a "computing paradigm where the boundaries of computing are determined by economic rationale rather than technical limits". Cloud computing has fast become the computing paradigm with applicability and adoption in all domains and providing utility computing at large scale. Lastly, Internet computing is the basis of any large-scale distributed computing paradigm; it has very quickly developed into a vast and flourishing field with enormous impact on today's information societies and serving as a universal platform comprising a large variety of computing forms such as grid, P2P, cloud and mobile computing.

Research Anthology on Big Data Analytics, Architectures, and Applications
Special Issue on Database Systems for Biomedical Applications
Data Management at Scale
How Google Runs Production Systems
Making data portability more effective for the digital economy
The Self-Service Data Roadmap
Volume 5: Advanced Intelligent Systems for Computing Sciences

This book focuses on methods and tools for intelligent data analysis, aimed at narrowing the increasing gap between data gathering and data comprehension, and emphasis will also be given to solving of problems which result from automated data collection, such as analysis of computer-based patient records, data warehousing tools, intelligent alarming, effective and efficient monitoring, and so on. This book aims to describe the different approaches of Intelligent Data Analysis from a practical point of view: solving common life problems with data analysis tools.

This book explores various aspects of software creation and development as well as data and information processing. It covers relevant topics such as business analysis, business rules, requirements engineering, software development processes, software defect prediction, information management systems, and knowledge management solutions. Lastly, the book presents lessons learned in information and data management processes and procedures.

Learn how to identify vulnerabilities within computer networks and implement countermeasures that mitigate risks and damage with Whitman/Mattord's PRINCIPLES OF INCIDENT RESPONSE & DISASTER RECOVERY, 3rd Edition. This edition offers the knowledge you need to help organizations prepare for and avert system interruptions and natural disasters. Comprehensive coverage addresses information security and IT in contingency planning today. Updated content focuses on incident response and disaster recovery. You examine the complexities of organizational readiness from an IT and business perspective with emphasis on management practices and policy requirements. You review industry's best practices for minimizing downtime in emergencies and curbing losses during and after system service interruptions. This edition includes the latest NIST knowledge, expanded coverage of security information and event management (SIEM) and unified threat management, and more explanation of cloud-based systems and Web-accessible tools to prepare you for success. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

This book provides practical knowledge on different aspects of information and knowledge management in businesses. For enterprises/businesses those intend to remain prosperous and prolific, it is critically important to share best practices, ensure efficient information flow across company, capturing shared knowledge centrally, and communicate compliance rules, i.e. managing competently information in general. It enables faster and better decisions by helping employees' to build a strong expertise and by avoiding duplicated projects. Thus, the second volume of this series subline continues to explore different aspects of information and knowledge handling as well as doing business with

information. We survey further the key aspects of managerial implications of the informational business. The novel methodologies and practices for the business information processing as well as application of mathematical models to the business analytics and efficient management are examined.

Transactions on Large-Scale Data- and Knowledge-Centered Systems IV

Cloud Object Storage as a Service: IBM Cloud Object Storage from Theory to Practice - For developers, IT architects and IT specialists

8th International Conference, GPC 2013, and Colocated Workshops, Seoul, Korea, May 9-11, 2013, Proceedings

Advances in Mobile Cloud Computing and Big Data in the 5G Era

An enterprise platform to operationalize data, analytics, and AI

The Enterprise Cloud

A Framework for Providing Re-Usable Enterprise Data Services

This study provides recommendations on how to make personal data portability more effective. This will truly empower consumers to use the services they want and share their data with whoever they wish and stimulate innovation in Europe. With the entry into force of the GDPR, European citizens gained new rights, notably with data portability. But two years later, there is still little sign of people exercising this right, and of companies offering an easy and convenient service for data portability. While the European Commission is finalising its evaluation of the GDPR and closes its consultation on the European data strategy, the authors, professors Jan Krämer, Pierre Senellart and Alexandre de Streel*, warn that the current legal framework requires clarifications to better empower European citizens in a data-driven society. In this study, they identify barriers to data portability, including the lack of possibilities to import data as well as the lack of common standards and tools to access data as easy as the click of a button. The ability to provide users with a centralised dashboard for monitoring and controlling the flow of their data is also critically missing. "Today, consumers do not widely use data portability for reasons that can and should be overcome. Making data portability more effective is better for competition, for innovation and to empower users," stress the authors. "There should be no second-guessing on whether to make data portability more effective, the time to act is now." The current EU framework encourages data portability, but there are legal gaps that the EU should fill. The authors insist on the need for detailed guidance on how data portability can be facilitated and on which data is subject to data portability without violating privacy rights. They advocate that data provided by users when using a service, such as search history (i.e. "observed data") should clearly be included under the scope of data portability. The authors consider it essential that the obligation to offer standardised Application Programming Interfaces (APIs) be much more widespread to enable consumers to continuously port their data. "We believe that standardised APIs that enable continuous data portability is a prerequisite for encouraging more organisations to import personal data, and for encouraging more consumers to initiate such transfers," explain the authors. Projects, such as the Data Transfer Project have highlighted that continuous data portability is technically feasible. The authors argue that Personal Management Information Systems (PIMSs) facilitate the complex consent management and offer users a centralised dashboard for monitoring and controlling the flow of their data will have a crucial role to play for the wider adoption of data portability. "It must be as easy as clicking a button for consumers to continuously share data they created with one provider to another provider. This may also require educating and informing users on their rights through information campaigns alongside clear policy measures," explain the authors. Nevertheless, they stress that PIMSs are not likely to find a sustainable business model, and thus, policy makers should support the emergence of open-source projects by setting common standards for data transfers, consent management, and identity management.

As data management and integration continue to evolve rapidly, storing all your data in one place, such as a data warehouse, is no longer scalable. In the very near future, data will need to be distributed and available for several technological solutions. With this practical book, you'll learnhow to migrate your enterprise from a complex and tightly coupled data landscape to a more flexible architecture ready for the modern world of data consumption. Executives, data architects, analytics teams, and compliance and governance staff will learn how to build a modern scalable data landscape using the Scaled Architecture, which you can introduce incrementally without a large upfront investment. Author Piethein Strengholt provides blueprints, principles, observations, best practices, and patterns to get you up to speed. Examine data management trends, including technological developments, regulatory requirements, and privacy concerns Go deep into the Scaled Architecture and learn how the pieces fit together Explore data governance and data security, master data management, self-service data marketplaces, and the importance of metadata