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Cloud Computing for Teaching and Learning: Strategies for Design and ImplementationCloud Computing Solutions ArchitectSoftware EngineeringCloud Computing - Industrie Management 4/2013Cloud ComputingHandbook of Research on Educational Design and Cloud Computing in Modern Classroom SettingsGuide to Cloud ComputingCloud ComputingInternet of Things: A Hands-On ApproachEmerging Technologies in Data Mining and Information SecurityCloud ComputingCloud Computing als Anwendung Migration auf die Cloud-fähige StrukturCLOUD COMPUTING SOLUTIONS ARCHITECTAdvances in Service-Oriented and Cloud ComputingInternet of ThingsPrinciples, Methodologies, and Service-Oriented Approaches for Cloud ComputingService-Oriented and Cloud ComputingCLOUD COMPUTINGProceedings of the International Conference on Data Engineering and Communication TechnologyCloud ComputingDatenintensive Anwendungen designenCloud Native Applications with Jakarta EEHandbook of Research on High Performance and Cloud Computing in Scientific Research and EducationHandbook of Integration of Cloud Computing, Cyber Physical Systems and Internet of ThingsSoftwareentwicklung von Kopf bis FussDie Vierte Industrielle RevolutionBuilding Cloud and Virtualization InfrastructureCompTIA Cloud+ Study GuideCloud Computing NetworkingBiotechnology: Concepts, Methodologies, Tools, and ApplicationsJavaScriptCloud Computing in LibrariesHandbook of Research on Cloud-Based STEM Education for Improved Learning OutcomesCloud Computing Business in Saudi ArabiaSecurity Engineering for Cloud Computing: Approaches and ToolsLaboratory Training GuideCloud Computing: A Hands-On ApproachHigh Speed and Large Scale Scientific ComputingCloud Computing for Machine Learning and Cognitive ApplicationsDistributed and Cloud Computing

Cloud Computing for Teaching and Learning: Strategies for Design and Implementation

In response to requests for instructional and training material from instructors, we prepared this laboratory training guide as a companion book to the Cloud Computing: A Hands-On Approach ("Cloud Book"). This book is designed to serve two purposes. First, it provides a tutorial for the laboratory training that can accompany traditional or online instruction using the Cloud Book. Second, it provides access to the complete source code used in the examples provided in the Cloud Book. The authors hope that this laboratory training guide will continue to prove useful to instructors and students using the Cloud Book.

Cloud Computing Solutions Architect

Transform the way you deliver IT resources digitally to connect to people and businesses. KEY FEATURES ● Extensive demonstration of service and deployment models with related use-cases. ● Includes wide and deep practical scenarios to explore the real cloud platform. ● Broad perspective to manage resources and disaster recovery. ● Infers various security standards and IAM with numerous examples. DESCRIPTION The book 'Building Cloud and Virtualization Infrastructure' covers the designing of a private cloud using various components and tools on various platforms such as AWS and OpenNebula. This book includes network virtualization and integrated technologies such as the Internet of Things and how to create web servers/instances on Amazon Web Services and OpenNebula. The readers will gain a better understanding of the concept of resource management, which offers benefits such as cost savings and improved manageability after reading this book. They will also learn disaster recovery, techniques, and tools to support virtualization, as well as the security challenges inherent in cloud platforms, the various IAM roles and their associated security, and various security standards. WHAT YOU WILL LEARN ● Understand the fundamentals of cloud concepts. ● Explore the knowledge of virtualization through different virtualization tools. ● Understand economic considerations to launch businesses online. ● Create your private cloud as per business needs. ● Learn to choose the right services to grow rapidly in the market. WHO THIS BOOK IS FOR This book is intended for students, researchers, and anyone interested in learning about designing, configuring, and deploying cloud-based applications. The readers should have a basic understanding of networking concepts, but not necessarily of the cloud. TABLE OF CONTENTS 1. Introduction to Cloud 2. Cloud Service Models 3. Cloud Deployment Models 4. Introduction to Hypervisor 5. Introduction to Virtualization 6. Virtualization on IT Assets 7. Experimental Part: Installation and Configuration 8. Practical Approach and Experiments 9. Resource Management in Cloud 10. Security in Cloud

Software Engineering

Cloud Computing - Industrie Management 4/2013

This book constitutes the refereed proceedings of the 11th International Conference on Cloud Computing, CloudComp 2021, held in December 2021. Due to COVID-19 pandemic the conference was held virtually. The 17 full papers were carefully reviewed and selected from 40 submissions and detail cloud computing technologies for efficient and intelligent computing in secure and smart environments with distributed devices. The theme of CloudComp 2021 was "Cloud Computing for Secure and Smart Applications". The book is organized in three general areas of data analytics for cloud systems with distributed applications, cloud architecture and challenges in real-world use, and security in cloud/edge platforms.

Cloud Computing

This book describes the landscape of cloud computing from first principles, leading the reader step-by-step through the process of building and configuring a cloud environment. The book not only considers the technologies for designing and creating cloud computing platforms, but also the business models and frameworks in real-world implementation of cloud platforms. Emphasis is placed on "learning by doing," and readers are encouraged to experiment with a range of different tools and approaches. Topics and features: includes review questions, hands-on exercises, study activities and discussion topics throughout the text; demonstrates the approaches used to build cloud computing infrastructures; reviews the social, economic, and political aspects of the on-going growth in cloud computing use; discusses legal and security concerns in cloud computing; examines techniques for the appraisal of financial investment into cloud computing; identifies areas for further research within this rapidly-moving field.

Handbook of Research on Educational Design and Cloud Computing in Modern Classroom Settings

Deploy serverless and scalable cloud-native applications with Jakarta EE KEY FEATURES ● Example-driven approach crafted specially for developers and architects. ● Covers all core areas for cloud-native development. ● Step-by-step implementation of core concepts, including application scalability and security, serverless, and containerization. DESCRIPTION The book helps readers to get a basic understanding of features provided by the cloud and core concepts of cloud native development. A hands-on approach makes sure that after reading the book, one can straight away implement the concepts in their daily design and development activities. The book starts with the basics of cloud computing and moves on to understanding the core concepts to create a production-ready cloud-native application. The book helps readers to develop a code that is testable and maintainable to support Agile cloud native development. This book also talks about the security and scalability aspects of applications which are the backbone of any large-scale application. The book covers advanced cloud-native application development approaches using containers and serverless approaches. The book will help readers to get ready for a cloud-native development journey. Whether one is creating a small application or a large-scale application, core concepts explained in this book remain relevant and will work as a guiding light for developers and architects. WHAT YOU WILL LEARN ● Explains the core features that are part of cloud computing. ● Build applications that are fast to market due to testability and maintainability. ● Build applications that are secured against vulnerabilities. ● Build applications that are easy to scale. WHO THIS BOOK IS FOR The book is meant for software developers, architects, and technical readers who want to learn about Cloud-based application development. Basic knowledge of the Java programming language or Jakarta EE platform is expected to understand code examples used in the book.

TABLE OF CONTENTS 1. Introduction to Cloud Computing 2. Design for Cloud 3. Major Players in Cloud Computing 4. Sample Application Using Jakarta EE 5. Testing Cloud-Native Applications 6. Continuous Integration and Continuous Delivery 7. Securing Cloud-Based Applications 8. Scalability 9. Monitoring, Alerting, and Reporting 10. Containers 11. Serverless Computing 12. Best Practices for Developing Cloud-Native Applications

Guide to Cloud Computing

As information systems used for research and educational purposes have become more complex, there has been an increase in the need for new computing architecture. High performance and cloud computing provide reliable and cost-effective information technology infrastructure that enhances research and educational processes. Handbook of Research on High Performance and Cloud Computing in Scientific Research and Education presents the applications of cloud computing in various settings, such as scientific research, education, e-learning, ubiquitous learning, and social computing. Providing various examples, practical solutions, and applications of high performance and cloud computing; this book is a useful reference for professionals and researchers discovering the applications of information and communication technologies in science and education, as well as scholars seeking insight on how modern technologies support scientific research.

Cloud Computing

Innovations in cloud and service-oriented architectures continue to attract attention by offering interesting opportunities for research in scientific communities. Although advancements such as computational power, storage, networking, and infrastructure have aided in making major progress in the implementation and realization of cloud-based systems, there are still significant concerns that need to be taken into account. Principles, Methodologies, and Service-Oriented Approaches for Cloud Computing aims to present insight into Cloud principles, examine associated methods and technologies, and investigate the use of service-oriented computing technologies. In addressing supporting infrastructure of the Cloud, including associated challenges and pressing issues, this reference source aims to present researchers, engineers, and IT professionals with various approaches in Cloud computing.

Internet of Things: A Hands-On Approach

Emerging Technologies in Data Mining and Information Security

The first textbook to teach students how to build data analytic solutions on large data sets using cloud-based technologies. This is the first textbook to teach students how to build data analytic solutions on large data sets (specifically in Internet of Things applications) using cloud-based technologies for data storage, transmission and mashup, and AI techniques to analyze this data. This textbook is designed to train college students to master modern cloud computing systems in operating principles, architecture design, machine learning algorithms, programming models and software tools for big data mining, analytics, and cognitive applications. The book will be suitable for use in one-semester computer science or electrical engineering courses on cloud computing, machine learning, cloud programming, cognitive computing, or big data science. The book will also be very useful as a reference for professionals who want to work in cloud computing and data science. Cloud and Cognitive Computing begins with two introductory chapters on fundamentals of cloud computing, data science, and adaptive computing that lay the foundation for the rest of the book. Subsequent chapters cover topics including cloud architecture, mashup services, virtual machines, Docker containers, mobile clouds, IoT and AI, inter-cloud mashups, and cloud performance and benchmarks, with a focus on Google's Brain Project, DeepMind, and X-Lab programs, IBKai HwangM SyNapse, Bluemix programs, cognitive initiatives, and neurocomputers. The book then covers machine learning algorithms and cloud programming software tools and application development, applying the tools in machine learning, social media, deep learning, and cognitive applications. All cloud systems are illustrated with big data and cognitive application examples.

Cloud Computing

Cloud Computing als Anwendung Migration auf die Cloud-fähige Struktur

Distributed and Cloud Computing: From Parallel Processing to the Internet of Things offers complete coverage of modern distributed computing technology including clusters, the grid, service-oriented architecture, massively parallel processors, peer-to-peer networking, and cloud computing. It is the first modern, up-to-date distributed systems textbook; it explains how to create high-performance, scalable, reliable systems, exposing the design principles, architecture, and innovative applications of parallel, distributed, and cloud computing systems. Topics covered by this book include: facilitating management, debugging, migration, and disaster recovery through virtualization; clustered systems for research or ecommerce applications; designing systems as web services; and social networking systems using peer-to-peer computing. The principles of cloud computing are

discussed using examples from open-source and commercial applications, along with case studies from the leading distributed computing vendors such as Amazon, Microsoft, and Google. Each chapter includes exercises and further reading, with lecture slides and more available online. This book will be ideal for students taking a distributed systems or distributed computing class, as well as for professional system designers and engineers looking for a reference to the latest distributed technologies including cloud, P2P and grid computing. Complete coverage of modern distributed computing technology including clusters, the grid, service-oriented architecture, massively parallel processors, peer-to-peer networking, and cloud computing Includes case studies from the leading distributed computing vendors: Amazon, Microsoft, Google, and more Explains how to use virtualization to facilitate management, debugging, migration, and disaster recovery Designed for undergraduate or graduate students taking a distributed systems course—each chapter includes exercises and further reading, with lecture slides and more available online

CLOUD COMPUTING SOLUTIONS ARCHITECT

CompTIA® Cloud+® Study Guide -- Acknowledgments -- About the Author -- Contents at a Glance -- Contents -- CompTIA -- Introduction -- Assessment Test -- Answers to Assessment Test -- Chapter 1 Cloud Computing Overview, Concepts, and Models -- Overview of Cloud Computing -- What Is Cloud Computing? -- Computing as a Utility Service -- The Growth of the Cloud -- Why Do This? -- Cloud vs. In-House Computing -- The Past of Computing -- Present State of Computing -- The Future of the Cloud -- Cloud Services Models and Architecture -- SaaS -- IaaS -- PaaS -- CaaS -- XaaS -- DaaS -- BPaaS

Advances in Service-Oriented and Cloud Computing

In the digital age, the integration of technology has become a ubiquitous aspect of modern society. These advancements have significantly enhanced the field of education, allowing students to receive a better learning experience. The Handbook of Research on Educational Design and Cloud Computing in Modern Classroom Settings is a pivotal reference source for the latest research findings on the strategic role of cloud computing in education, teaching, and the learning process. Featuring extensive coverage on relevant areas such as personal learning environment, cloud-based learning, and educational models, this publication is an ideal resource for educators, professionals, school administrators, researchers, and practitioners in the field of education.

Internet of Things

This book constitutes the refereed proceedings of the 7th IFIP WG 2.14 European Conference on Service-Oriented and Cloud Computing, ESOCC 2018, held in Como, Italy, in September 2018. The 10 full and 5 short papers presented in this volume were carefully reviewed and selected from 32 submissions. The volume also contains one invited talk in full paper length. The main event mapped to the main research track which focused on the presentation of cutting-edge research in both the service-oriented and cloud computing areas. In conjunction, an industrial track was also held attempting to bring together academia and industry through showcasing the application of service-oriented and cloud computing research, especially in the form of case studies, in the industry.

Principles, Methodologies, and Service-Oriented Approaches for Cloud Computing

Summary: This work combines selected papers from a July 2008 workshop held in Cetraro, Italy, with invited papers by international contributors. Material is in sections on algorithms and scheduling, architectures, GRID technologies, cloud technologies, information processing and applications, and HPC and GRID infrastructures for e-science. B&w maps, images, and screenshots are used to illustrate topics such as nondeterministic coordination using S-Net, cloud computing for on-demand grid resource provisioning, grid computing for financial applications, and the evolution of research and education networks and their essential role in modern science. There is no subject index. The book's readership includes computer scientists, IT engineers, and managers interested in the future development of grids, clouds, and large-scale computing. Gentzsch is affiliated with the DEISA Project and Open Grid Forum, Germany.

Service-Oriented and Cloud Computing

This book covers the core concepts and principles of software engineering through the design and implementation of a software engineering semester project from a primarily object-oriented approach. The book provides the reader with an in-depth discussion of software engineering principles and its foundation accompanied with a review of fundamental object-oriented skills. The reader then learns the software engineering life cycle and principles, including how to model with UML before introducing them to the second part of the book: The Software Engineering Project. The reader learns specific technical activities such as scheduling, communication, documentation, and the ability to embrace change. Following the initial elicitation oSf requirements, including important functional vs non-functional requirements, the reader is introduced to object-oriented analysis and its role during the development process. The reader will learn how to identify and use cases, develop scenarios, model, and much more. Once the specifications and models are implemented, the book focuses on system and object-oriented design. This

is accompanied with a discussion of how to integrate and define various components functionally, structurally, and from an object-oriented approach. During implementation, the reader will learn the process of planning and executing system design plans, which are divided among different developers. Once the software product has been developed, the book covers testing, including documentation on how to plan, create, and utilize tests to ensure the readiness of the software. When complete, the reader will learn the guiding principles to finish, release, and maintain the software going forward. The latter half of the text introduces emerging topics in software engineering, including: Web engineering, cloud computing, agile development, and big data. Web engineering provides an overview of how it differs from traditional software engineering, and the various methods and techniques it encompasses. Cloud computing, a rapidly evolving area in many industries, explores the various service and deployment models, highlighting the benefits and limitations of each. Many users are still realizing the benefits to developing in the cloud and how it can support an agile development environment. Agile development, the ability to adapt to change during development, is rapidly emerging, facilitated with the emergence of cloud computing and big data advancements. Arguably the biggest challenge being worked on by software engineers is the challenge of big data. Emerging technologies such as Apache Storm are being used to process big data. The ability to rapidly and efficiently store and process big data is a large area of research, with new advancements happening daily.

CLOUD COMPUTING

This book constitutes the thoroughly refereed post conference proceedings of the 4th International Conference on Cloud Computing, Cloud Comp 2013, held in Wuhan, China, in October 2013. The 28 revised full papers were carefully reviewed and selected from numerous submissions and cover topics such as mobile cloud computing, services, applications, IoT on cloud, architectures and big data, cloud-assisted pervasive computing and services, management and virtualization for cloud, cloud security.

Proceedings of the International Conference on Data Engineering and Communication Technology

This book features research papers presented at the International Conference on Emerging Technologies in Data Mining and Information Security (IEMIS 2018) held at the University of Engineering & Management, Kolkata, India, on February 23–25, 2018. It comprises high-quality research work by academicians and industrial experts in the field of computing and communication, including full-length papers, research-in-progress papers, and case studies related to all the areas of data mining, machine learning, Internet of Things (IoT) and information security.

Cloud Computing

This handbook covers recent advances in the integration of three areas, namely, cloud computing, cyber-physical systems, and the Internet of things which is expected to have a tremendous impact on our daily lives. It contains a total of thirteen peer-reviewed and edited chapters. This book covers topics such as context-aware cyber-physical systems, sustainable cloud computing, fog computing, and cloud monitoring; both the theoretical and practical aspects belonging to these topics are discussed. All the chapters also discuss open research challenges in the areas mentioned above. Finally, the handbook presents three use cases regarding healthcare, smart buildings and disaster management to assist the audience in understanding how to develop next-generation IoT- and cloud-enabled cyber-physical systems. This timely handbook is edited for students, researchers, as well as professionals who are interested in the rapidly growing fields of cloud computing, cyber-physical systems, and the Internet of things.

Datenintensive Anwendungen designen

Cloud Native Applications with Jakarta EE

Cloud computing is the delivery of different services through the Internet, including data storage, servers, databases, networking, and software. Cloud-based storage makes it possible to save files to a remote database and retrieve them on demand.

Handbook of Research on High Performance and Cloud Computing in Scientific Research and Education

This book contains the proceedings of the five high-quality workshops organized at the Second European Conference on Service-Oriented and Cloud Computing, ESOCC 2013, held in Malaga, Spain, in September 2013. The workshops are: Cloud for IoT (CLIoT 2013), CLOUd Storage Optimization (CLOUSO 2013), 12th International Workshop on Foundations of Coordination Languages and Self-Adaptive Systems (FOCLASA 2013), First Workshop on Mobile Cloud and Social Perspectives (MoCSoP 2013), and the 3rd International Workshop on Adaptive Services for the Future Internet (WAS4FI 2013). The 29 papers presented were carefully reviewed and selected from 51 submissions. They focus on specific topics in service-oriented and cloud computing domains: cloud environments, smart connectivity, context-aware computation, cloud for IoT, storage clouds, coordination languages,

formal approaches to modeling and reasoning, self-systems, services for mobile devices, wireless sensor networks.

Handbook of Integration of Cloud Computing, Cyber Physical Systems and Internet of Things

Internet of Things (IoT) refers to physical and virtual objects that have unique identities and are connected to the internet to facilitate intelligent applications that make energy, logistics, industrial control, retail, agriculture and many other domains "smarter". Internet of Things is a new revolution of the Internet that is rapidly gathering momentum driven by the advancements in sensor networks, mobile devices, wireless communications, networking and cloud technologies. Experts forecast that by the year 2020 there will be a total of 50 billion devices/things connected to the internet. This book is written as a textbook on Internet of Things for educational programs at colleges and universities, and also for IoT vendors and service providers who may be interested in offering a broader perspective of Internet of Things to accompany their own customer and developer training programs. The typical reader is expected to have completed a couple of courses in programming using traditional high-level languages at the college-level, and is either a senior or a beginning graduate student in one of the science, technology, engineering or mathematics (STEM) fields. Like our companion book on Cloud Computing, we have tried to write a comprehensive book that transfers knowledge through an immersive "hands on" approach, where the reader is provided the necessary guidance and knowledge to develop working code for real-world IoT applications. Additional support is available at the book's website: www.internet-of-things-book.com Organization The book is organized into 3 main parts, comprising of a total of 11 chapters. Part I covers the building blocks of Internet of Things (IoTs) and their characteristics. A taxonomy of IoT systems is proposed comprising of various IoT levels with increasing levels of complexity. Domain specific Internet of Things and their real-world applications are described. A generic design methodology for IoT is proposed. An IoT system management approach using NETCONF-YANG is described. Part II introduces the reader to the programming aspects of Internet of Things with a view towards rapid prototyping of complex IoT applications. We chose Python as the primary programming language for this book, and an introduction to Python is also included within the text to bring readers to a common level of expertise. We describe packages, frameworks and cloud services including the WAMP-AutoBahn, Xively cloud and Amazon Web Services which can be used for developing IoT systems. We chose the Raspberry Pi device for the examples in this book. Reference architectures for different levels of IoT applications are examined in detail. Case studies with complete source code for various IoT domains including home automation, smart environment, smart cities, logistics, retail, smart energy, smart agriculture, industrial control and smart health, are described. Part III introduces the reader to advanced topics on IoT including IoT data analytics and Tools for IoT. Case studies on collecting and analyzing data generated by Internet of Things in the cloud are described.

Softwareentwicklung von Kopf bis Fuss

Daten stehen heute im Mittelpunkt vieler Herausforderungen im Systemdesign. Dabei sind komplexe Fragen wie Skalierbarkeit, Konsistenz, Zuverlässigkeit, Effizienz und Wartbarkeit zu klären. Darüber hinaus verfügen wir über eine überwältigende Vielfalt an Tools, einschließlich relationaler Datenbanken, NoSQL-Datenspeicher, Stream-und Batchprocessing und Message Broker. Aber was verbirgt sich hinter diesen Schlagworten? Und was ist die richtige Wahl für Ihre Anwendung? In diesem praktischen und umfassenden Leitfaden unterstützt Sie der Autor Martin Kleppmann bei der Navigation durch dieses schwierige Terrain, indem er die Vor-und Nachteile verschiedener Technologien zur Verarbeitung und Speicherung von Daten aufzeigt. Software verändert sich ständig, die Grundprinzipien bleiben aber gleich. Mit diesem Buch lernen Softwareentwickler und -architekten, wie sie die Konzepte in der Praxis umsetzen und wie sie Daten in modernen Anwendungen optimal nutzen können. Inspizieren Sie die Systeme, die Sie bereits verwenden, und erfahren Sie, wie Sie sie effektiver nutzen können Treffen Sie fundierte Entscheidungen, indem Sie die Stärken und Schwächen verschiedener Tools kennenlernen Steuern Sie die notwenigen Kompromisse in Bezug auf Konsistenz, Skalierbarkeit, Fehlertoleranz und Komplexität Machen Sie sich vertraut mit dem Stand der Forschung zu verteilten Systemen, auf denen moderne Datenbanken aufbauen Werfen Sie einen Blick hinter die Kulissen der wichtigsten Onlinedienste und lernen Sie von deren Architekturen

Die Vierte Industrielle Revolution

Written in a tutorial style, this comprehensive guide follows a structured approach explaining cloud techniques, models and platforms. Popular cloud services such as Amazon, Google and Microsoft Azure are explained in the text. The security risks and challenges of cloud computing are discussed in detail with useful examples. Emerging trends including mobile cloud computing and internet of things are discussed in the book for the benefit of the readers. Numerous review questions, multiple choice exercises and case studies facilitate enhanced understanding. This textbook is ideal for undergraduate and graduate students of computer science engineering, and information technology.

Building Cloud and Virtualization Infrastructure

Die größte Herausforderung unserer Zeit Ob selbstfahrende Autos, 3-D-Drucker oder Künstliche Intelligenz: Aktuelle technische Entwicklungen werden unsere Art zu leben und zu arbeiten grundlegend verändern. Die Vierte Industrielle Revolution hat bereits begonnen. Ihr Merkmal ist die ungeheuer schnelle und systematische Verschmelzung von Technologien, die die Grenzen

zwischen der physischen, der digitalen und der biologischen Welt immer stärker durchbrechen. Wie kein anderer ist Klaus Schwab, der Vorsitzende des Weltwirtschaftsforums, in der Lage aufzuzeigen, welche politischen, wirtschaftlichen, sozialen und kulturellen Herausforderungen diese Revolution für uns alle mit sich bringt.

CompTIA Cloud+ Study Guide

Was lernen Sie mit diesem Buch? Haben Sie sich schon einmal gefragt, was es mit testgetriebener Entwicklung auf sich hat? Oder auf welcher Basis es die richtig guten Consultants schaffen, gewaltige Stundensätze zu kassieren? Vielleicht sind Sie auch gerade an dem Punkt, an dem Sie Ihre Builds automatisieren wollen, Ihren Code in eine Versionskontrolle füttern, einem Refactoring unterziehen oder mit ein paar Entwurfsmustern anreichern wollen. Egal: Wenn Sie mit diesem Buch fertig sind, werden Sie ganz selbstverständlich Ihre Burndown-Rate verfolgen, den Durchsatz Ihres Teams berücksichtigen und sich erfolgreich Ihren Weg durch Anforderungen, Entwurf, Entwicklung und Auslieferung iterieren. Wieso sieht dieses Buch so anders aus? Wir gehen davon aus, dass Ihre Zeit zu kostbar ist, um mit neuem Stoff zu kämpfen. Statt Sie mit Bleiwüstentexten langsam in den Schlaf zu wiegen, verwenden wir für Softwareentwicklung von Kopf bis Fuß ein visuell und inhaltlich abwechslungsreiches Format, das auf Grundlage neuster Forschungsergebnisse im Bereich der Kognitionswissenschaft und der Lerntheorie entwickelt wurde. Wir wissen nämlich, wie Ihr Gehirn arbeitet.

Cloud Computing Networking

Cloud computing is the most significant technology transformation since the introduction of the Internet in the early 1990s. As more and more companies and educational institutions plan to adopt a cloud-based IT infrastructure, today’s job market requires IT professionals who understand cloud computing and have hands-on experience developing cloud-based networks. Cloud Computing Networking: Theory, Practice, and Development covers the key networking and system administration concepts as well as the vital hands-on skills you need to master cloud technology. This book is designed to help you quickly get started in deploying cloud services for a real-world business. It provides detailed step-by-step instructions for creating a fully functioning cloud-based IT infrastructure using the Microsoft Azure cloud platform. In this environment, you can develop cloud services collaboratively or individually. The book enhances your hands-on skills through numerous lab activities. In these lab activities, you will learn to Implement the following services in a cloud environment: Active Directory, DHCP, DNS, and Certificate Services Configure Windows Server so it can route IP traffic Implement IP Security Policy and Windows Firewall with Advanced Security tools Create a point-to-site connection between Microsoft Azure and a local computer Create a site-to-site connection

between Microsoft Azure and an on-premises network Develop a hybrid cloud that integrates Microsoft Azure with a private cloud created on a local network Cloud Computing Networking: Theory, Practice, and Development includes numerous examples, figures, and screen shots to help you understand the information. Each chapter concludes with a summary of the major topics and a set of review questions. With this book, you will soon have the critical knowledge and skills to develop and manage cloud-based networks.

Biotechnology: Concepts, Methodologies, Tools, and Applications

Cloud computing is a model where computing resources (processors, storage, software) are offered as a utility from an indistinct location and boundaries to the user. Adoption of Cloud computing in recent years has gained momentum within various avenues round the globe due to its characteristics like elasticity, virtualization and pay-as-you-go pricing. In tune with the trend various companies have evolved which are offering web applications. These companies provide the system required to host the application to users on lease which saves them from purchasing. The book combines both theoretical and practical perspectives of cloud computing with a slant towards library and information centres. The book describes in detail about various companies which are providing cloud computing solutions and infrastructure for library and information centres. Intiatives of OCLC and best practices adopted in other libraries around the world has been discussed at length. Many avenues of the implementation of cloud computing has been identified in the present study. Various initiatives of the library professionals to move their internet sites, their integrated library system for cataloguing and acquisition, Cloud based library apps, Cloud based Stack Map and their repository systems and inter library loan systems to the cloud has been mentioned. The book further proposes a model which may serve as a blueprint for implementation of cloud computing technologies in libraries. With the timely publication of book, library and information service practitioners after going through the book can outsource the task of maintaining the computer infrastructure and focus on their mission to serve people with right information at right point of time.

JavaScript

Doctoral Thesis / Dissertation from the year 2014 in the subject Computer Science - Commercial Information Technology, grade: 4.5, Egerton University, language: English, abstract: Cloud computing has 3 primary service models including SaaS, IaaS and PaaS, which are classified depending on the level for which a service user interacts with the service provider’s systems in accessing memory, processing power and storage. Deployment models of cloud computing include hybrid, community, public and private clouds depending on the approach to hosting and the number of clients sharing a resource. Due to the prohibitive

nature of private cloud computing and requirement for specialized systems in community clouds, the most suitable approach to cloud computing for small and medium enterprises is public cloud computing. In this regard, this study was aimed at determining the extent to which implementation of public cloud computing by enterprise companies is feasible. Due to the cultural and the absence of law in Saudi Arabia ensuring the protection of data in the cloud, challenges in implementing cloud computing in the country are related to adherence to the data governance structure. For instance, privacy and security are important for enterprise companies since the local culture values the safeguarding of family and individual information. In addition, information transferred through the cloud system must adhere to the conservative philosophy and data privacy, which limits the level of compatibility in cloud computing between Saudi Arabia and the western world. Since most service providers are based in the west, companies have to identify a service provider that tailors its products to suit the market in Saudi Arabia. Therefore, implementation of public cloud computing in Saudi Arabia is feasible as long as companies select a service provider with a positive reputation, limit posting of sensitive information to the cloud server, and implement cloud computing gradually to avert the possibility of complete failure. This study determined that SaaS cloud computing is feasible for enterprise companies in Saudi Arabia, but further study is required to examine the feasibility of IaaS and PaaS. In addition, a larger study should be done to collect quantitative data to determine the implications of cloud computing in a representative sample.

Cloud Computing in Libraries

With its cost efficiency, enabling of collaboration and sharing of resources, and its ability to improve access, cloud computing is likely to play a big role in the classrooms of tomorrow. Cloud Computing for Teaching and Learning: Strategies for Design and Implementation provides the latest information about cloud development and cloud applications in teaching and learning. The book alsos include empirical research findings in these areas for professionals and researchers working in the field of e-learning who want to implement teaching and learning with cloud computing, as well as provide insights and support to executives concerned with cloud development and cloud applications in e-learning communities and environments.

Handbook of Research on Cloud-Based STEM Education for Improved Learning Outcomes

Bachelorarbeit aus dem Jahr 2012 im Fachbereich Informatik - Wirtschaftsinformatik, Note: keine, Marmara Üniversitesi, Sprache: Deutsch, Abstract: ABSTRACT Cloud computing has been a frequently discussed approach in recent years. This approach is based on applications and services being kept on the remote servers and usage of these application and services via devices with internet connection. In Cloud Computing all the resources and services are provided with “Pay as you use”

model. Therefore, the businesses are able to choose and use an appropriate model for themselves without having to make new investments. In addition to lowering the operating costs it brings other benefits such as simplicity, flexibility, developing new business models. On the other hand, the most important question mark of the Cloud Computing is security issues. However these concerns are prevented with a variety of security measures. In this study, content, benefits, risks and in an architectural way the technical structure of the Cloud Computing are explained. In the last part of my study, a company's computing processes are analyzed and according to the outcomes, a cloud computing model has been developed.

Cloud Computing Business in Saudi Arabia

"This book provides a theoretical and academic description of Cloud security issues, methods, tools and trends for developing secure software for Cloud services and applications"--Provided by publisher.

Security Engineering for Cloud Computing: Approaches and Tools

Laboratory Training Guide

Biotechnology can be defined as the manipulation of biological process, systems, and organisms in the production of various products. With applications in a number of fields such as biomedical, chemical, mechanical, and civil engineering, research on the development of biologically inspired materials is essential to further advancement. Biotechnology: Concepts, Methodologies, Tools, and Applications is a vital reference source for the latest research findings on the application of biotechnology in medicine, engineering, agriculture, food production, and other areas. It also examines the economic impacts of biotechnology use. Highlighting a range of topics such as pharmacogenomics, biomedical engineering, and bioinformatics, this multi-volume book is ideally designed for engineers, pharmacists, medical professionals, practitioners, academicians, and researchers interested in the applications of biotechnology.

Cloud Computing: A Hands-On Approach

About the Book Recent industry surveys expect the cloud computing services market to be in excess of $20 billion and cloud computing jobs to be in excess of 10 million worldwide in 2014 alone. In addition, since a majority of existing information

technology (IT) jobs is focused on maintaining legacy in-house systems, the demand for these kinds of jobs is likely to drop rapidly if cloud computing continues to take hold of the industry. However, there are very few educational options available in the area of cloud computing beyond vendor-specific training by cloud providers themselves. Cloud computing courses have not found their way (yet) into mainstream college curricula. This book is written as a textbook on cloud computing for educational programs at colleges. It can also be used by cloud service providers who may be interested in offering a broader perspective of cloud computing to accompany their own customer and employee training programs. The typical reader is expected to have completed a couple of courses in programming using traditional high-level languages at the college-level, and is either a senior or a beginning graduate student in one of the science, technology, engineering or mathematics (STEM) fields. We have tried to write a comprehensive book that transfers knowledge through an immersive "hands-on approach", where the reader is provided the necessary guidance and knowledge to develop working code for real-world cloud applications. Additional support is available at the book's website: www.cloudcomputingbook.info Organization The book is organized into three main parts. Part I covers technologies that form the foundations of cloud computing. These include topics such as virtualization, load balancing, scalability & elasticity, deployment, and replication. Part II introduces the reader to the design & programming aspects of cloud computing. Case studies on design and implementation of several cloud applications in the areas such as image processing, live streaming and social networks analytics are provided. Part III introduces the reader to specialized aspects of cloud computing including cloud application benchmarking, cloud security, multimedia applications and big data analytics. Case studies in areas such as IT, healthcare, transportation, networking and education are provided.

High Speed and Large Scale Scientific Computing

Cloud Computing for Machine Learning and Cognitive Applications

This two-volume book contains research work presented at the First International Conference on Data Engineering and Communication Technology (ICDECT) held during March 10–11, 2016 at Lavasa, Pune, Maharashtra, India. The book discusses recent research technologies and applications in the field of Computer Science, Electrical and Electronics Engineering. The aim of the Proceedings is to provide cutting-edge developments taking place in the field data engineering and communication technologies which will assist the researchers and practitioners from both academia as well as industry to advance their field of study.

Distributed and Cloud Computing

As technology advances, so must our education system. Cloud computing serves as an ideal method for e-learning thanks to its flexibility, affordability, and availability. Cloud-based learning is especially dynamic in STEM education, as it can significantly lower the cost of building cumbersome computer labs while fostering engaged learning and collaboration among students. The Handbook of Research on Cloud-Based STEM Education for Improved Learning Outcomes prepares current and future instructors for exciting breakthroughs in STEM education driven by the advancement of cloud technologies. From virtual lab and app construction, to information sharing and course material distribution, this volume touches on a variety of topics related to the benefits and challenges of adopting cloud technologies in the classroom. This book is an invaluable reference for educators, technology professionals, administrators, and education students who wish to become leaders in their fields.