Practical Azure Application Development Springer

This book constitutes the proceedings of the 4th International Conference on Network Security and Applications held in Chennai, India, in July 2011. The 63 revised full papers presented were carefully reviewed and selected from numerous submissions. The papers address all technical and practical aspects of security and its applications for wired and wireless networks and are organized in topical sections on network security and applications, ad hoc, sensor and ubiquitous computing, as well as peer-to-peer networks and trust management.
This book constitutes the refereed proceedings of the 17th International Symposium on Formal Methods, FM 2011, held in Limerick, Ireland, in June 2011. The 29 revised full papers presented together with 3 invited talks were carefully reviewed and selected from numerous submissions. The papers are organized in topical sections on cyber-physical systems, runtime analysis, case studies/tools, experience, program compilation and transformation, security, progress algebra, education, concurrency, dynamic structures, and model checking.
This book provides an overview of tools and techniques used in enterprise software development, many of which are not taught in academic programs or learned on the job. This is an ideal resource containing lots of practical information and code examples that you need to master as a member of an enterprise development team. This book aggregates many of these "on the job" tools and techniques into a concise format and presents them as both discussion topics and with code examples. The reader will not only get an overview of these tools and techniques, but also several discussions concerning operational aspects of enterprise software development and how it differs from smaller development efforts. For example, in the chapter on Design Patterns and Architecture, the author describes the basics of design patterns but only highlights those that are more important in enterprise applications due to separation of duties, enterprise security, etc. The architecture discussion revolves has a similar emphasis – different teams may manage different aspects of the application’s components with little or no access to the developer. This aspect of restricted access is also mentioned in the section on logging. Theory of logging and discussions of what to log are briefly mentioned, the configuration of the logging tools is demonstrated along with a discussion of why it’s very important in an enterprise environment.
This book takes a practical problem-solution approach to common business challenges. You’ll not only encounter interesting code samples, but also see how to combine these examples with the Microsoft collaboration platform’s services. The book’s solutions focus on using Visual Studio 2008 and its built-in Office development tools to construct the user interface layer. And solutions can interact with SharePoint as a service provider, taking advantage of SharePoint’s many collaboration features like document repositories, collaboration sites, and search functions. This book is unique because it starts with challenges that end users deal with every day when using the Microsoft collaboration platform to support business processes. The solutions are presented as hypothetical business challenges of a fictional company. By presenting the examples in this context, author Ed Hild makes it easier to relate to the challenges and solution value. The goal of these examples is to build applications that apply the benefits of the Office desktop interface to the richness of SharePoint collaboration features. This book will help you develop real-world solutions to complex business problems and challenges.
This book focuses on software architecture and the value of architecture in the development of long-lived, mission-critical, trustworthy software-systems. The author introduces and demonstrates the powerful strategy of “Managed Evolution,” along with the engineering best practice known as “Principle-based Architecting.” The book examines in detail architecture principles for e.g., Business Value, Changeability, Resilience, and Dependability. The author argues that the software development community has a strong responsibility to produce and operate useful, dependable, and trustworthy software. Software should at the same time provide business value and guarantee many quality-of-service properties, including security, safety, performance, and integrity. As Dr. Furrer states, “Producing dependable software is a balancing act between investing in the implementation of business functionality and investing in the quality-of-service properties of the software-systems.” The book presents extensive coverage of such concepts as: Principle-Based Architecting Managed Evolution Strategy The Future Principles for Business Value Legacy Software Modernization/Migration Architecture Principles for Changeability Architecture Principles for Resilience Architecture Principles for Dependability The text is supplemented with numerous figures, tables, examples and illustrative quotations. Future-Proof Software-Systems provides a set of good engineering practices, devised for integration into most software development processes dedicated to the creation of software-systems that incorporate Managed Evolution.
Get started and learn a step-by-step approach to application development using Microsoft Azure. Select the right services to solve the problem at hand in a cost-effective manner and explore the potential different services and how they can help in building enterprise applications. Azure has an ample amount of resources and tutorials, but most of them focus on specific services and explain those services on their own and in a given context. Practical Azure Application Development focuses on building complete solutions on Azure using different services. This book gives you the holistic approach to Azure as a solutions development platform. This book: Covers Azure as a solution development platform for building applications Provides real-world examples to understand why and when an Azure service is required Discusses how Azure helps to achieve continuous improvement and expansion of an application Provides application development experience from purchasing Azure to integrating with core Azure services, including an introduction to DevOps with VSTS What You'll Learn Use Azure services to solve real-world software problems Define the usage of Azure services and select the right services to solve the problem at hand Make clear and less ambiguous decisions about using different Azure services Take a holistic approach to Azure as a solution platform Understand the basics of security, data protection, and cost controls in Azure Who This Book Is For Developers, software engineers, and architects who have experience in .NET and web development, but have little or no knowledge in planning and developing an application on Azure
In today's global society, it has become increasingly important to address the current challenges, obstacles, and solutions encountered by researchers in the field of information resources management. Global, Social, and Organizational Implications of Emerging Information Resources Management: Concepts and Applications highlights recent trends and advancements as they impact all facets of information resources management in an ever-changing society. This collection provides focused discussions of the role outsourcing has played in modern business, the development of Web information systems, and social issues such as explorations of age-based salary differences and workplace stress.
Adopt Azure IaaS and migrate your on-premise infrastructure partially or fully to Azure. This book provides practical solutions by following Microsoft’s design and best practice guidelines for building highly available, scalable, and secure solution stacks using Microsoft Azure IaaS. The author starts by giving an overview of Azure IaaS and its components: you’ll see the new aspects of Azure Resource Manager, storage in IaaS, and Azure networking. As such, you’ll cover design considerations for migration and implementation of infrastructure services, giving you practical skills to apply to your own projects. The next part of the book takes you through the different components of Azure IaaS that need to be included in a resilient architecture and how to set up a highly available infrastructure in Azure. The author focuses on the tools available for Azure IaaS automated provisioning and the different performance monitoring and fine-tuning options available for the platform. Finally, you’ll gain practical skills in Azure security and implementing Azure architectures. After reading Practical Microsoft Azure IaaS, you will have learned how to map the familiar on-premise architecture components to their cloud infrastructure counterparts. This book provides a focused and practical approach to designing solutions to be hosted in Azure IaaS. What You Will Learn Map the key Azure components to familiar concepts in infrastructure, such as virtualization, storage provisioning, switching, and firewalls Implement Azure IaaS deployment architectures Design IaaS environments in line with the Microsoft recommended best practices for scalability, resiliency, availability,

performance, and security Manage the operational aspects of hosted environments, leverage automation, and fine tune for optimal performance Who This Book Is For Infrastructure and solution architects with skills in on-premise infrastructure design who want to up-skill in Azure IaaS.

The four-volume set LNCS 8012, 8013, 8014 and 8015 constitutes the proceedings of the Second International Conference on Design, User Experience, and Usability, DUXU 2013, held as part of the 15th International Conference on Human-Computer Interaction, HCII 2013, held in Las Vegas, USA in July 2013, jointly with 12 other thematically similar conferences. The total of 1666 papers and 303 posters presented at the HCII 2013 conferences was carefully reviewed and selected from 5210 submissions. These papers address the latest research and development efforts and highlight the human aspects of design and use of computing systems. The papers accepted for presentation thoroughly cover the entire field of Human-Computer Interaction, addressing major advances in knowledge and effective use of computers in a variety of application areas. The total of 282 contributions included in the DUXU proceedings were carefully reviewed and selected for inclusion in this four-volume set. The 65 papers included in this volume are organized in the following topical sections: designing for safe and secure environments; designing for smart and ambient devices; designing for virtual and augmented environments; and emotional and persuasion design.

PHP is rapidly becoming the language of choice for dynamic Web development, in particular for e-commerce and on-line database systems. It is open source software and easy to install, and can be used with a variety of operating systems, including Microsoft Windows and UNIX. This comprehensive manual covers the basic core of the language, with lots of practical examples of some of the more recent and useful features available in version 5.0. MySQL database creation and development is also covered, as it is the developer database most commonly used alongside PHP. It will be an invaluable book for professionals wanting to use PHP to develop their own dynamic web pages. Key Topics: - Basic Language Constructs - Manipulating Arrays and Strings - Errors and Buffering - Graphic Manipulation - PDF Library Extension - MySQL Database Management - Classes and Objects Concepts Features and Benefits: Explains how to use PHP to its full extent - covering the latest features and functions of PHP version 5.0, including the use of object-oriented programming Describes how to link a database to a web site, using the MySQL database management system Shows how to connect PHP to other systems and provides many examples, so that you can create powerful and dynamic web pages and applications Contains lots of illustrated, practical, real-world examples - including an e-commerce application created in PHP using many of the features described within the book The scripts used in the examples are available for download from www.phpmysql-manual.com

ASP.NET MVC 4 Recipes is a practical guide for developers creating modern web applications, cutting through the complexities of ASP.NET, jQuery, Knockout.js and HTML 5 to provide straightforward solutions to common web development problems using proven methods based on best practices. The problem-solution approach gets you in, out, and back to work quickly while deepening your understanding of the underlying platform and how to develop with it. Author John Ciliberti guides you through the framework and development tools, presenting typical challenges, along with code solutions and clear, concise explanations, to accelerate application development. Inside you will find recipes dealing with streamlined syntax, full control over HTML, a simple API for creating RESTful web services, writing support for test driven development, and more. Solve problems immediately by pasting in code from the recipes, or put multiple recipe solutions together to overcome challenging development obstacles. Dive head first into ASP.NET MVC web development with ASP.NET MVC 4 Recipes.

Design an enterprise solution from scratch that allows the migration of a legacy application. Begin with the planning and design phase and be guided through all the stages of selecting the architecture framework that fits your enterprise. Join Microsoft MVP Josh Garverick as he addresses all major areas of design and implementation—application, infrastructure, data, security, and deployment—while leveraging the power and tools of Visual Studio Team Services (VSTS) to bring DevOps to the forefront. With an emphasis on principles and best practices of enterprise design, you will discover how to recognize existing patterns within the legacy platform and to identify potential risks, bottlenecks, and candidates for automation. What You'll Learn Accurately and completely capture baseline information about a legacy system Leverage enterprise patterns for constructing next-generation platforms in the cloud Design, plan, and implement deployment pipelines to enable continuous delivery Identify and implement cloud-based platform components to reduce total cost of ownership Understand testing and validation: iterative component authoring, monitoring, deployment, and performance Price and perform capacity planning for cloud-based infrastructure and workloads Who This Book Is For Enterprise architects and IT professionals who are required to keep legacy applications relevant in today's cloud-first world

Learn about dependency injection, interfaces, service providers, SOLID design, and more with practical and real-world code examples. This book covers everything you need to get started in application development with Laravel 5.3. Beginning Laravel covers features such as method injection, contracts, and authentication. After reading this book, you can develop any application using Laravel 5. It details all you need to know, including the model-view-controller pattern, SQLite databases, routing, authorization, and building CRUD applications. What You Will Learn Work with the new Laravel framework and its new features Develop web applications with Laravel Absorb the concepts of authentication and database migration Manage databases with Eloquent ORM Use middleware, contracts, and facades Who This Book Is For readers who="" are="" new="" to="" laravel="" development.divReaders who are new to Laravel development.br/divdivbr/divdivbr/div

Explore the concept of bots and discover the motivation behind working with these new apps with messaging platforms. This book is an accessible resource teaching the basic concepts behind bot design and implementation. Each chapter builds on previous topics and, where appropriate, real working code is shown that implements the concepts. By just picking up a code editor, you can start creating smart, engaging, and useful bot experiences today. Practical Bot Development will teach you how to create your own bots on platforms like Facebook Messenger and Slack, incorporate extension APIs, and apply AI and ML algorithms in the cloud. By the end of this book, you'll be equipped with the information to reach thousands of new users with the bots you create! The book is a great resource for those looking to harness the benefits of building their own bots and leveraging the platform feasibility of them. What You'll Learn Understand the general architecture of a bot Distinguish between a great bot experience versus a bad bot experience. Explore the ideas behind natural language processing and apply them to bot development Implement real Messenger, Slack, and custom channel bots using Node.js and the Microsoft Bot Builder framework Deploy bots to Facebook Messenger and Slack Who This Book Is For Engineers, hobbyists, and the design oriented community looking looking for an introduction to the technologies and concepts involved in building bots. The experience level could be from beginner to expert,

although some familiarity with Node.js and APIs will be assumed.
Start developing Azure Functions and building simple solutions for serverless computing without worrying about infrastructure. With the increased need for deploying serverless computing, Azure Functions integrates with other Azure resources. This book is a quick reference and consists of a practical and problem-driven approach with the latest technology. Guided by step-by-step explanations and sample projects, you'll set up, build, and deploy Azure Functions to get the most out of this compute-on-demand service. After a foundational introduction to Azure Functions you'll prepare a development environment to serve and process an IoT Telemetry system, create Microservices, and monitor Azure Functions services to get application insights. What You'll Learn Review the Interaction between Azure Functions and Azure data services Apply Azure Functions in web applications and build interaction systems for mobile applications Develop a serverless micro-service Serve and process IoT Telemetry systems Monitor Azure Functions services and get application insights Who This Book Is For Developers, students, professionals and anyone interested in Azure Function technology and the Azure platform.
In this fully updated second edition, award-winning author Tim Leung explains how to build data-centric business applications for the desktop, cloud, web, and mobile devices in just a few clicks—with no code required—using Visual Studio Lightswitch 2015. This book explains the basics of Visual Studio Lightswitch 2015 plus new features and key advanced topics that every Microsoft developer needs to know to create modern data services and build clients that can run on multiple devices. Visual Studio LightSwitch 2015 is a rapid application deployment tool that simplifies and shortens the time needed to develop business applications. The basics are very easily understood but more advanced users will hunger for more. How do you design complex layouts? How do you query data using LINQ and other syntax structures? How do you secure your application against malicious use? Visual Studio LightSwitch 2015 answers these questions and more as author Tim Leung—winner of a Microsoft 2011 Community Contributor Award for his LightSwitch expertise—covers this breakthrough product in detail. For serious developers building, enhancing, and deploying advanced business applications using LightSwitch makes sense because they can benefit from the elegance, convenience, and cost savings afforded by rapid application development before going beyond the "click-and-you're-done" interface to include the extra value and depth of coding expertise that their clients value. What You Will Learn: Build Desktop and HTML5 business applications for PC or mobile devices Create compelling user interfaces that can support multiple languages Fine tune your application with C#, VB.NET, JQuery, JavaScript, and CSS code Integrate with mapping, GPS, and location services Provide email notification, and Microsoft Office compatible data exports Enable users to carry out advanced searches on data Build screen controls that you can share with other developers
The potential of embedded systems ranges from the simplicity of sharing digital media to the coordination of a variety of complex joint actions carried out between collections of networked devices. The book explores the emerging use of embedded systems and wireless technologies from theoretical and practical applications and their applications in agriculture, environment, public health, domotics, and public transportation, among others.
Here is the expert-level, insider guidance you need on using Azure SQL Database as your back-end data store. This book highlights best practices in everything ranging from full-stack projects to mobile applications to critical, back-end APIs. The book provides instruction on accessing your data from any language and platform. And you learn how to push processing-intensive work into the database engine to be near the data and avoid undue networking traffic. Azure SQL is explained from a developer's point of view, helping you master its feature set and create applications that perform well and delight users. Core to the book is showing you how Azure SQL Database provides relational and post-relational support so that any workload can be managed with easy accessibility from any platform and any language. You will learn about features ranging from lock-free tables to columnstore indexes, and about support for data formats ranging from JSON and key-values to the nodes and edges in the graph database paradigm. Reading this book prepares you to deal with almost all data management challenges, allowing you to create lean and specialized solutions having the elasticity and scalability that are needed in the modern world. What You Will Learn Master Azure SQL Database in your development projects from design to the CI/CD pipeline Access your data from any programming language and platform Combine key-value, JSON, and relational data in the same database Push data-intensive compute work into the database for improved efficiency Delight your customers by detecting and improving poorly performing queries Enhance performance through features such as columnstore indexes and lock-free tables Build confidence in your mastery of Azure SQL Database's feature set Who This Book Is For Developers of applications and APIs that benefit from cloud database support, developers who wish to master their tools (including Azure SQL Database, and those who want their applications to be known for speedy performance and the elegance of their code
Explore tools for integrating resources and applications with Azure Active Directory for authentication and authorization. This book starts with an introduction to Azure Active Directory (AAD) where you will learn the core concepts necessary to understand AAD and authentication in general. You will then move on to learn OpenID Connect and OAuth along with its flows, followed by a deep dive into the integration of web applications for user-based authentication. Next, you go through user authentication and how to enable the integration of various native applications with AAD. This is followed by an overview of authenticating applications along with a detailed discussion on collaboration with external users and other AD tenants. Moving forward, Developing Applications with Azure Active Directory covers using schemas of AD objects, such as users, to add custom attributes on top of ADD's predefined attributes. You will see how multi-tenancy can be supported in Azure AD as well as how to design authorization with Azure AD. After reading this book, you will be able to integrate, design, and develop authentication and authorization techniques in Azure Active Directory. What You Will Learn Integrate applications with Azure AD for authentication Explore various Azure AD authentication scenarios Master core Azure AD concepts Integrate external users and tenants Who is this book for: The book will be useful for architects and developers, planning to use Azure AD for authentication.
Annotation. This book constitutes the refereed proceedings of the 19th European Symposium on Programming, ESOP 2010, held in Paphos, Cyprus, in March 2010, as part of ETAPS 2010, the European Joint Conferences on Theory and Practice of Software. The 30 revised full papers, presented together with two invited talks (one abstract and one full), were carefully reviewed and selected from 121 full paper submissions. The topics addressed include programming paradigms and styles, methods and tools to write and specify programs and languages, methods and tools for reasoning about programs, methods and tools for implementation, and concurrency and distribution.
"This work is a comprehensive, four-volume reference addressing major issues, trends, and areas for advancement in information management research, containing chapters investigating human factors in IT management, as well as IT governance, outsourcing, and diffusion"--Provided by publisher.
The current work provides CIOs, software architects, project managers, developers, and cloud strategy initiatives with a set of architectural patterns that offer nuggets of advice on how to achieve common cloud computing-related goals. The cloud computing patterns capture knowledge and experience in an abstract format that is independent of concrete vendor products. Readers are provided with a toolbox to structure cloud computing strategies and design cloud application architectures. By using this book cloud-native applications can be implemented and best suited cloud vendors and tooling for individual usage scenarios can be selected. The cloud computing patterns offer a

unique blend of academic knowledge and practical experience due to the mix of authors. Academic knowledge is brought in by Christoph Fehling and Professor Dr. Frank Leymann who work on cloud research at the University of Stuttgart. Practical experience in building cloud applications, selecting cloud vendors, and designing enterprise architecture as a cloud customer is brought in by Dr. Ralph Retter who works as an IT architect at T?Systems, Walter Schupeck, who works as a Technology Manager in the field of Enterprise Architecture at Daimler AG,and Peter Arbitter, the former head of T Systems' cloud architecture and IT portfolio team and now working for Microsoft. Voices on Cloud Computing Patterns Cloud computing is especially beneficial for large companies such as Daimler AG. Prerequisite is a thorough analysis of its impact on the existing applications and the IT architectures. During our collaborative research with the University of Stuttgart, we identified a vendor-neutral and structured approach to describe properties of cloud offerings and requirements on cloud environments. The resulting Cloud Computing Patterns have profoundly impacted our corporate IT strategy regarding the adoption of cloud computing. They help our architects, project managers and developers in the refinement of architectural guidelines and communicate requirements to our integration partners and software suppliers. Dr. Michael Gorriz – CIO Daimler AG Ever since 2005 T-Systems has provided a flexible and reliable cloud platform with its "Dynamic Services". Today these cloud services cover a huge variety of corporate applications, especially enterprise resource planning, business intelligence, video, voice communication, collaboration, messaging and mobility services. The book was written by senior cloud pioneers sharing their technology foresight combining essential information and practical experiences. This valuable compilation helps both practitioners and clients to really understand which new types of services are readily available, how they really work and importantly how to benefit from the cloud. Dr. Marcus Hacke – Senior Vice President, T-Systems International GmbH This book provides a conceptual framework and very timely guidance for people and organizations building applications for the cloud. Patterns are a proven approach to building robust and sustainable applications and systems. The authors adapt and extend it to cloud computing, drawing on their own experience and deep contributions to the field. Each pattern includes an extensive discussion of the state of the art, with implementation considerations and practical examples that the reader can apply to their own projects. By capturing our collective knowledge about building good cloud applications and by providing a format to integrate new insights, this book provides an important tool not just for individual practitioners and teams, but for the cloud computing community at large. Kristof Kloeckner – General Manager,Rational Software, IBMSoftware Group

Benefit from Microsoft's robust suite of security and cryptography primitives to create a complete, hybrid encryption scheme that will protect your data against breaches. This highly practical book teaches you how to use the .NET encryption APIs and Azure Key Vault, and how they can work together to produce a robust security solution. Applied Cryptography in .NET and Azure Key Vault begins with an introduction to the dangers of data breaches and the basics of cryptography. It then takes you through important cryptographic techniques and practices, from hashing and symmetric/asymmetric encryption, to key storage mechanisms. By the end of the book, you'll know how to combine these cryptographic primitives into a hybrid encryption scheme that you can use in your applications. Author Stephen Haunts brings 25 years of software development and security experience to the table to give you the concrete skills, knowledge, and code you need to implement the latest encryption standards in your own projects. What You'll Learn Get an introduction to the principles of encryption Understand the main cryptographic protocols in use today, including AES, DES, 3DES, RSA, SHAx hashing, HMACs, and digital signatures Combine cryptographic techniques to create a hybrid cryptographic scheme, with the benefits of confidentiality, integrity, authentication, and non-repudiation Use Microsoft's Azure Key Vault to securely store encryption keys and secrets Build real-world code to use in your own projects Who This Book Is For Software developers with experience in .NET and C#. No prior knowledge of encryption and cryptographic principles is assumed.

Go from zero to sixty deploying and running a Kubernetes cluster on Microsoft Azure! This hands-on practical guide to Microsoft's Azure Kubernetes Service (AKS), a managed container orchestration platform, arms you with the tools and knowledge you need to easily deploy and operate on this complex platform. Take a journey inside Docker containers, container registries, Kubernetes architecture, Kubernetes components, and core Kubectl commands. Drawing on hard-earned experience in the field, the authors provide just enough theory to help you grasp important concepts, teaching the practical straightforward knowledge you need to start running your own AKS cluster. You will dive into topics related to the deployment and operation of AKS, including Rancher for management, security, networking, storage, monitoring, backup, scaling, identity, package management with HELM, and AKS in CI/CD. What You Will Learn Develop core knowledge of Docker containers, registries, and Kubernetes Gain AKS skills for Microsoft's fastest growing services in the cloud Understand the pros and cons of deploying and operating AKS Deploy and manage applications on the AKS platform Use AKS within a DevOps CI/CD process Who This Book Is For IT professionals who work with DevOps, the cloud, Docker, networking, storage, Linux, or Windows. Experience with cloud, DevOps, Docker, or application development is helpful.

A man may imagine he understands something, but still not understand anything in the way that he ought to. (Paul of Tarsus, 1 Corinthians 8:2) Calling this a 'practical theory' may require some explanation. Theory and practice are often thought of as two di?erent worlds, governed bydi?erentideals,principles, andlaws.DavidLorgeParnas, forinstance,who hascontributedmuchtoourtheoreticalunderstandingofsoftwareengineering and also to sound use of theory in the practice of it, likes to point out that 'theoretically' is synonymous to 'not really'. In applied mathematics the goal is to discover useful connections between these two worlds. My thesis is that in software engineering this two-world view is inadequate, and a more intimate interplay is required between theory and practice. That is, both theoretical and practical components should be integrated into a practical theory. It should beclearfrom theabovethattheintended readership of this book is not theoreticians. They would probably have di?culties in appreciating a book on theory where the presentation does not proceed in a logical sequence from basic de?nitions to theorems and mathematical proofs, followed by -plication examples. In fact, all this would not constitute what I understand by a practical theory in this context.

After Ole-Johan's retirement at the beginning of the new millennium, some of us had thought and talked about making a "Festschrift" in his honor. When Donald Knuth took the initiative by sending us the ?rst contribution, the p- cess began to roll! In early 2002 an editing group was formed, including Kristen Nygaard, who had known Ole-Johan since their student days, and with whom he had developed the Simula language. Then we invited a number of prominent researchers familiar with Ole-Johan to submit contributions for a book hon- ing Ole-Johan on the occasion of his 70th birthday. Invitees included several members of the IFIP 2. 3 working group, a forum that Ole-Johan treasured and enjoyedparticipating in throughouthis career. In spite of the shortdeadline, the response to the invitations was overwhelmingly positive. The original idea was to complete the book rather quickly to make it a gift he could read and enjoy, because by then he had had cancer for three years, and his health was gradually deteriorating. Kristen had been regularly visiting Ole-Johan,who was in the hospitalat that time, and they were workingon their Turing award speech. Ole-Johan was grati?ed to hear about the contributions to this book, but modestly expressed the feeling that there was no special need to undertake a book project on his behalf. Peacefully accepting his destiny, Ole- Johan died on June 29, 2002.

Go beyond the basics and build complete applications using the Rust programming language. The applications in this book include a high-performance web client, a microcontroller (for a robot, for example), a game, an app that runs on Android, and an application that incorporates AI and machine learning. Each chapter will be organized in the following format: what this kind of application looks like; requirements and user stories of our example program; an introduction to the Rust libraries used; the actual implementation of the example program, including common pitfalls and their solutions; and a brief comparison of libraries for building each application, if there is no clear

winner. Practical Rust Projects will open your eyes to the world of practical applications of Rust. After reading the book, you will be able to apply your Rust knowledge to build your own projects. What You Will Learn Write Rust code that runs on microcontrollers Build a 2D game Create Rust-based mobile Android applications Use Rust to build AI and machine learning applications Who This Book Is For Someone with basic Rust knowledge, wishing to learn more about how to apply Rust in a real-world scenario.

The Model Driven Architecture defines an approach where the specification of the functionality of a system can be separated from its implementation on a particular technology platform. The idea being that the architecture will be able to easily be adapted for different situations, whether they be legacy systems, different languages or yet to be invented platforms. MDA is therefore, a significant evolution of the object-oriented approach to system development. Advanced System Design with Java, UML and MDA describes the factors involved in designing and constructing large systems, illustrating the design process through a series of examples, including a Scrabble player, a jukebox using web streaming, a security system, and others. The book first considers the challenges of software design, before introducing the Unified Modelling Language and Object Constraint Language. The book then moves on to discuss systems design as a whole, covering internet systems design, web services, Flash, XML, XSLT, SOAP, Servlets, Javascript and JSP. In the final section of the book, the concepts and terminology of the Model Driven Architecture are discussed. To get the most from this book, readers will need introductory knowledge of software engineering, programming in Java and basic knowledge of HTML. * Examines issues raised by the Model-Driven Architecture approach to development * Uses easy to grasp case studies to illustrate complex concepts * Focused on the internet applications and technologies that are essential for students in the online age

Learn to build a simple data-driven mobile game application using the power of Xamarin.Forms, ASP.NET, the Web API, and SignalR with this short book. In it you will build a cross-platform mobile application that targets both iOS and Android, connect your app with your database using Entity Framework, and implement real-time syncing functionality using SignalR. Understanding Game Application Development starts by giving you an overview of the development tools, an installation guide, and a list of prerequisites. You will learn how to manage application flow, create your workspace, and set up your database. Next, you will see how to access data for handling CRUD operations and define the necessary API endpoints. Further, you will build a mobile application with Xamarin.Forms, both in iOS and in Android. You will also understand the deployment and testing process as well as how to build a real-time leader board using ASP.NET MVC and SignalR. Finally, you will understand how to publish your source code on GitHub from Visual Studio 2017. What You Will Learn Understand the basic concept and fundamentals of the technologies used for building the applications Set up your development environment Create a SQL database from scratch Implement a data access layer Define REST service endpoints using the Web API Deploy, test, and debug iOS and Android applications Push your source code to GitHub Who This Book Is For .NET developers who want to jump on mobile application development with Xamarin and learn with practical examples.

"This book's main objective is to present some of the key approaches, research lines, and challenges that exist in the field of security in SOA systems"--Provided by publisher.

Use this book as your one-stop shop for architecting a world-class DevOps environment with Microsoft technologies. .NET DevOps for Azure is a synthesis of practices, tools, and process that, together, can equip a software organization to move fast and deliver the highest quality software. The book begins by discussing the most common challenges faced by developers in DevOps today and offers options and proven solutions on how to implement DevOps for your team. Daily, millions of developers use .NET to build and operate mission-critical software systems for organizations around the world. While the marketplace has scores of information about the technology, it is completely up to you to put together all the blocks in the right way for your environment. This book provides you with a model to build on. The relevant principles are covered first along with how to implement that part of the environment. And while variances in tools, language, or requirements will change the needed implementation, the DevOps model is the architecture for the working environment for your team. You can modify parts of the model to customize it to your enterprise, but the architecture will enable all of your teams and applications to accelerate in performance. What You Will Learn Get your .NET applications into a DevOps environment in Azure Analyze and address the part of your DevOps process that causes delays or bottlenecks Track code using Azure Repos and conduct acceptance tests Apply the rules for segmenting applications into Git repositories Understand the different types of builds and when to use each Know how to think about code validation in your DevOps environment Provision and configure environments; deploy release candidates across the environments in Azure Monitor and support software that has been deployed to a production environment Who This Book Is For .NET Developers who are using or want to use DevOps in Azure but don’t know where to begin

Get started and learn a step-by-step approach to application development using Microsoft Azure. Select the right services to solve the problem at hand in a cost-effective manner and explore the many services designed to help you in building enterprise applications. This new edition covers Azure PaaS and serverless cloud native solutions and gives you the holistic approach to Azure as a solutions development platform. It discusses recent developments in cloud applications and architecture such as the modern application development landscape and serverless middleware. You will learn about web application development in Azure PaaS with modern JavaScript. Since the last edition was based on the legacy .NET Framework, Practical Azure Application Development has been updated with significant ASP.NET Core changes. Also new in this edition: production-ready setup with traffic flow and configuration of the application with production-ready features. Finally, you'll cover extended architecture patterns to see how you can integrate additional services with the application. After reading this book, you will be able to build complete business solutions on Azure using different services. What You Will Learn Discover end-to-end solution design and development in Azure Integrate additional services with the application Understand the basics of security, data protection, and cost controls in Azure Who This Book Is For Developers and architects who have experience in .NET and web development, but have little or no knowledge in planning and developing an application on Azure.

Learn the business and technical importance of API design and architecture using the available cloud services from Azure and AWS. This book starts off with an introduction to APIs and the concept of API Economy from a business and organizational perspective. You'll decide on a sustainable API strategy and API architecture based on different case scenarios. You'll then look at actual examples on API development guidelines, providing a practical view and approach towards the API development and aligning teams in API development. This book walks you through the API gateway services available in Azure and AWS and reviews different approaches to API Security. This will prepare you for understanding the trade-off between security and the frictionless API experience. What You'll Learn Implement API Gateways to streamline API Development Examine Security Mapping with API gateways from Azure and AWS Apply API implementation using Serverless architecture Review evolving APIs for monitoring and changing business requirements Use code samples in API security implementations Who This Book Is For Developers and architects with .NET and web development experience who want to learn about API design.

Beginning Windows Store Application Development – HTML and JavaScript Edition introduces you to the Windows 8 modern app design paradigm and the new Windows 8 programming model developed around this paradigm. You'll learn to build rich, immersive applications designed to run on the many devices powered by Windows 8. The authors draw on

their extensive practical experience to provide not only a comprehensive introduction to the model and its features, but guidance on best practices and a real-world sample application that you develop over the course of the book. Beginning Windows Store Application Development – HTML and JavaScript Edition also emphasizes how devices will be used and applications will be built in a world that has become far more connected. The book takes you beyond the syntax of any development language and examines factors such as application design, user experience, social integration, and maintaining data and settings across multiple devices. What you'll learn Apply Windows 8 modern UI style design guidelines to build effective user interfaces Use the new programming libraries available in Windows 8 Effectively use application tiles and notifications Integrate with Windows by exposing your application's data to Windows Search and Share menus Consume services to bring data into your application Use the cloud to share data and application settings across multiple devices Publish your applications in the Windows Store Who this book is for Beginning Windows Store Application Development – HTML and JavaScript Edition is for the novice programmer with a basic understanding of web development who is interested in learning how to build the next generation of applications designed to run on Windows 8. Readers who already have an understanding of HTML, CSS and JavaScript will get the most out of the book. It also is an excellent choice for more experienced developers who want to get started programming for Windows 8. Table of Contents Welcome to a Touch First World The Microsoft Design Language Designing Windows Store Applications Visual Studio 2012 and Windows Store Application Types HTML Controls WinJS Controls WinJS Collection Controls WinJS Custom Controls Building the User Interface Transitions and Animations Data Binding Concepts Promises Web Workers Data Source Options Session State and Settings Files Handling State Changes External Libraries Windows Search and Share Printing Notifications and Tiles Sensors, Devices and Location Publishing Apps in the Windows Store

Business practices are rapidly changing due to technological advances in the workplace. Organizations are challenged to implement new programs for more efficient business while maintaining their standards of excellence and achievement. Human Performance Technology: Concepts, Methodologies, Tools, and Applications is a vital reference source for the latest research findings on real-world applications of digital tools for human performance enhancement across a variety of settings. This publication also examines the utilization of problem-based instructional techniques for challenges and solutions encountered by industry professionals. Highlighting a range of topics such as performance support systems, workplace curricula, and instructional technology, this multi-volume book is ideally designed for business executives and managers, business professionals, human resources managers, academicians, and researchers actively involved in the business industry.

Create HTML5, JQuery, and CSS3-based hybrid applications and deploy them on multiple mobile devices, including on Android, iOS and Windows Phone. This kind of application development has the edge over native application development. Beginning Hybrid Mobile Application Development shows you how you can convert existing web application into mobile applications with minimal effort. You'll see how hybrid applications can give many web applications a larger audience by making them available as mobile applications. What You Will Learn Understand the basics of hybrid application development Discover the platforms and frameworks used for hybrid application development Master hybrid application development using the available APIs Access data in hybrid application See the role of JSON versus XML in hybrid applications Secure your code Who This Books Is For Mobile and web application developers.