Mongodb Developer Certification

Master the craft of predictive modeling in R by developing strategy, intuition, and a solid foundation in essential concepts About This Book Grasping the major methods of predictive modeling and moving beyond black box thinking to a deeper level of understanding Leveraging the flexibility and modularity of R to experiment with a range of different techniques and data types Packed with practical advice and tips explaining important concepts and best practices to help you understand quickly and easily Who This Book Is For Although budding data scientists, predictive modelers, or quantitative analysts with only basic exposure to R and statistics will find this book to be useful, the experienced data scientist professional wishing to attain master level status , will also find this book extremely valuable.. This book assumes familiarity with the fundamentals of R, such as the main data types, simple functions, and how to move data around. Although no prior experience with machine learning or predictive modeling is required, there are some advanced topics provided that will require more than novice exposure. What You Will Learn Master the steps involved in the predictive modeling process Grow your expertise in using R and its diverse range of packages Learn how to classify predictive models and distinguish which models are suitable for a particular problem Understand steps for tidying data and improving the performing metrics Recognize the assumptions, strengths, and weaknesses of a predictive model Understand how and why each predictive model works in R Select appropriate metrics to assess the performance of different types of predictive model Explore word embedding and recurrent neural networks in R Train models in R that can work on very large datasets In Detail R offers a free and open source environment that is perfect for both learning and deploying predictive modeling solutions. With its constantly growing community and plethora of packages, R offers the functionality to deal with a truly vast array of problems. The book begins with a dedicated chapter on the language of models and the predictive modeling process. You will understand the learning curve and the process of tidying data. Each subsequent chapter tackles a particular type of model, such as neural networks, and focuses on the three important questions of how the model works, how to use R to train it, and how to measure and assess its performance using real-world datasets. How do you train models that can handle really large datasets? This book will also show you just that. Finally, you will tackle the really important topic of deep learning by implementing applications on word embedding and recurrent neural networks. By the end of this book, you will have explored and tested the most popular modeling techniques in use on real- world datasets and mastered a diverse range of techniques in predictive analytics using R. Style and approach This book takes a step-by-step approach in explaining the intermediate to advanced concepts in predictive analytics. Every concept is explained in depth, supplemented with practical examples applicable in a real-world setting.

? This book is a comprehensive guide to MongoDB for application developers. The book begins by explaining what makes MongoDB unique and describing its ideal use cases. A series of chapters designed for MongoDB mastery then leads into detailed examples for leveraging MongoDB in e-commerce, social networking, analytics, and other common applications. Numerous examples will help you develop confidence in the crucial area of data modeling. You'll also love the deep explanations of each

feature, including replication, auto-sharding, and deployment. ? This is well-organized book which provides both the proper explaination youll need as a student developer and enough detail to satisfy a developer. Several examples will help you develop confidence in the crucial area of data modeling. Youll also love the deep explanations of each feature, including replication, auto-sharding, and deployment. ? The first chapters cover a lot of theory but later you dive into practical hands-on experience setting up and configuring MongoDB from scratch. This is crucial if you want to truly understand the database environment. ? This book really does cover just the MongoDB, simply in depth so it also wont take you very far. Throughout each chapter youll learn tons of new techniques for using MongoDB objects and the basic CRUD techniques for DB connections. Later chapters even offer source code from multiple languages like Java, Python, and PHP. This lets you see how applications can scale using Mongo regardless of the backend language. You can learn sharding and replication for scaling databases. ? This book is very compact with less than 100 pages. But its also incredibly detailed and wastes no time diving right into the action and ease of use.. ? What's inside: - NoSQL, Architecture of MongoDB - Standard DB operations, Indexes, queries - Map-reduce for custom aggregations and reporting - Java, Python and PHP Connectivity - Schema design patterns - Deploying for scale and high availability.

This book is designed to help newcomers and experienced users alike learn about Kubernetes. Its chapters are designed to introduce core Kubernetes concepts and to build on them to a level where running an application on a production cluster is a familiar, repeatable, and automated process. From there, more advanced topics are introduced, like how to manage a Kubernetes cluster itself.

Write free, open-source, cross-platform, dynamic JavaScript applications that can run anywhere using the MEAN stack - MongoDB, ExpressJS, AngularJS, and Node.js. With this book Mac developers will get the tools needed to set up, write code once, and be able to deploy code on any device. You will be able to cut development time by using one stack to serve all your development needs. Pro MEAN Stack Development enables you to quickly learn everything needed to work effectively with MEAN, from setting up your toolstack to rolling out your free servers, and deploying on any device. You will also learn to build scripts with Grunt and Gulp, Webpack, and Vagrant and how to deploy to the web and mobile using Phonegap. Harness JavaScript to create dynamic and easily-maintainable applications fast and 100% free. Master the MEAN stack with this book today. What You Will Learn Utilize JavaScript for the entire development cycle from front end to back end, database and deployment. Learn to write responsive code that can be deployed on any device. Become a well-rounded developer and be able to understand the entire development cycle. Learn to utilize free open source and cloud services to deploy production-grade code. Who This Book Is For Front or back end Mac developers familiar with JavaScript and interested in utilizing the MEAN stack to deploy successful apps on all devices.

An effective guide to becoming an AWS Certified Developer About This Book This fast-paced guide will help you clear the exam with confidence Learn to design, develop, and deploy cloud-based solutions using AWS Enhance your AWS skills with practice questions and mock tests Who This Book Is For This book is for IT professionals and developers looking to clear the AWS Certified Developer – Associate 2017 exam.

Developers looking to develop and manage their applications on the AWS platform will also find this book useful. No prior AWS experience is needed. What You Will Learn Create and manage users, groups, and permissions using AWS Identity and Access Management services Create a secured Virtual Private Cloud (VPC) with Public and Private Subnets, Network Access Control, and Security groups Get started with Elastic Compute Cloud (EC2), launching your first EC2 instance, and working with it Handle application traffic with Elastic Load Balancing (ELB) and monitor AWS resources with CloudWatch Work with AWS storage services such as Simple Storage Service (S3), Glacier, and CloudFront Get acquainted with AWS DynamoDB – a NoSQL database service Coordinate work across distributed application components using Simple Workflow Service (SWF) In Detail AWS Certified Developer - Associate Guide starts with a quick introduction to AWS and the prerequisites to get you started. Then, this book gives you a fair understanding of core AWS services and basic architecture. Next, this book will describe about getting familiar with Identity and Access Management (IAM) along with Virtual private cloud (VPC). Moving ahead you will learn about Elastic Compute cloud (EC2) and handling application traffic with Elastic Load Balancing (ELB). Going ahead you we will talk about Monitoring with CloudWatch, Simple storage service (S3) and Glacier and CloudFront along with other AWS storage options. Next we will take you through AWS DynamoDB – A NoSQL Database Service, Amazon Simple Queue Service (SQS) and CloudFormation Overview. Finally, this book covers understanding Elastic Beanstalk and overview of AWS lambda. At the end of this book, we will cover enough topics, tips and tricks along with mock tests for you to be able to pass the AWS Certified Developer - Associate exam and develop as well as manage your applications on the AWS platform. Style and approach This step-by-step guide includes exercises and mock tests to clear the AWS certification exam and become a successful AWS developer.

Focusing 100% on the exam objectives, OCA: Oracle Certified Associate Java SE 8 Programmer I Study Guide is designed to make you fully prepared for this challenging exam. Between Java 7 and Java 8, Oracle has made the biggest changes to the language in a long time. In particular, developers will need to learn functional programming for the first time to pass the certification. This comprehensive study guide covers all of the key topic areas Java programmers will need to be familiar with, including: Java basics Operators, conditionals and loops String and StringBuilder, Array and ArrayList Methods and encapsulation Inheriting abstract classes and interfaces Exceptions Class design Object-Oriented design principles and design patterns Generics and collections Functional programming Advanced strings and localization Exceptions and assertions IO and NIO Threads Concurrency JDBC With this complete Study Guide, Java developers will gain the information, understanding, and practice they need to pass the OCAJP 8 exam.

This book provides a practical, hands-on guide to conducting user studies in informatics. Its purpose is to explain the foundations of different experimental designs together with the appropriate statistical analyses for studies most often conducted in computing. Common mistakes are highlighted together with guidelines on how they should be avoided. The book is intended for advanced undergraduate students, beginning graduate students and as a refresher for any researcher evaluating the usefulness of informatics for people by doing user studies. With clear, non-technical

language, fundamental concepts are explained and illustrated using diverse examples. In addition to the foundations, practical tips to starting, acquiring permission, recruiting participants, conducting and publishing studies are included. A how-to guide, in the form of a cookbook, is also included. The cookbook recipes can be followed step-by-step or adjusted as necessary for different studies. Each recipe contains step-by-step instructions and concrete advice.

Build an interactive and full-featured web application from scratch using Node.js and MongoDB About This Book Configure your development environment to use Node.js and MongoDB Use Node.js to connect to a MongoDB database and perform data manipulations A practical guide with clear instructions to design and develop a complete web application from start to finish Who This Book Is For This book is designed for JavaScript developers of any skill level that want to get up and running using Node.js and MongoDB to build full-featured web applications. A basic understanding of JavaScript and HTML is the only requirement for this book. What You Will Learn Configure your development environment to use Node.js and MongoDB Write and configure a web server using Node.js powered by the Express.js framework Build dynamic HTML pages using the Handlebars template engine Persist application data using MongoDB and Mongoose ODM Test your code using automated testing tools such as the Mocha framework Deploy the development environment to the cloud using services such as Heroku, Amazon Web Services, and Microsoft Azure Explore Single-Page application frameworks to take your web applications to the next level In Detail Node.js and MongoDB are quickly becoming one of the most popular tech stacks for the web. Powered by Google's V8 engine, Node.js caters to easily building fast, scalable network applications while MongoDB is the perfect fit as a scalable, high-performance, open source NoSQL database solution. Using these two technologies together, web applications can be built quickly and easily and deployed to the cloud with very little difficulty. The book will begin by introducing you to the groundwork needed to set up the development environment. Here, you will quickly run through the steps necessary to get the main application server up and running. Then you will see how to use Node.js to connect to a MongoDB database and perform data manipulations. From here on, the book will take you through integration with third-party tools for interaction with web apps. It then moves on to show you how to use controllers and view models to generate reusable code that will reduce development time. Toward the end of the book, we will cover tests to properly execute the code and some popular frameworks for developing web applications. By the end of the book, you will have a running web application developed with MongoDB and Node.js along with it's popular frameworks. Style and approach An easy guide to Node.js and MongoDB, which will quickly introduce you to the relevant concepts by taking you through the different steps involved in building a full-fledged web application.

Pass the Pivotal Certified Professional exam using source code examples, study summaries, and mock exams. In this book, you'll find a descriptive overview of certification-related Spring modules and a single example application demonstrating the use of all required Spring modules. Also, it is suitable as an introductory primer for Spring newcomers. Furthermore, in Pivotal Certified Professional Spring Developer Exam: A Study Guide each chapter contains a brief study summary and question set, and the book’s free downloadable source code package includes one mock exam (50 questions – like a real exam). After using this study guide, you will be ready to take and pass the Pivotal Certified Professional exam. When you

become Pivotal Certified, you will have one of the most valuable credentials in Java. The demand for Spring skills is skyrocketing. Pivotal certification helps you advance your skills and your career, and get the maximum benefit from Spring. Passing the exam demonstrates your understanding of Spring and validates your familiarity with: container-basics, aspect oriented programming (AOP), data access and transactions, Spring Security, Spring Boot, microservices and the Spring model-view-controller (MVC). Good luck! What You'll Learn Understand the core principles of the popular Spring Framework Use dependency injection Work with aspects in Spring and do AOP (aspect oriented programming) Control transactional behavior and work with SQL and NoSQL (MongoDB) databases Create and secure web applications based on Spring MVC Get to know the format of exam and type of questions in it Create Spring microservices applications Who This Book Is ForSpring developers who have taken the Pivotal Core Spring class are eligible to take the Pivotal Certified Professional exam.
This book contains three original and high-quality practice tests with 40 questions each - with answers and explanations - to help you pass the new Couchbase Associate Java Developer exam.* Most questions are original, with added answers and references.* Other questions are adapted from quizzes, from the 8-hour long Couchbase Associate Java Developer Certification Course, with added answers.* Just like the real exam, each practice test has 40 questions, for 90 minutes, with a 80% passing score.* Domains or categories: General, Java SDK, Queries, and Data Modeling.* All questions closely emulate most from the actual exam, without duplicating them.* Unlike the real exam, you'll know right away what questions you missed, and what the correct answers are.* Detailed explanations with external references for any possible choice, in almost each practice test question.* Most questions are either single-choice or with multiple-selections.Same e-book as LIVE practice tests on Udemy: "Become a Couchbase Certified Java Developer: Practice Exams"
MongoDB, a cross-platform NoSQL database, is the fastest-growing new database in the world. MongoDB provides a rich document-oriented structure with dynamic queries that you'll recognize from RDBMS offerings such as MySQL. In other words, this is a book about a NoSQL database that does not require the SQL crowd to re-learn how the database world works! MongoDB has reached 1.0 and boasts 50,000+ users. The community is strong and vibrant and MongoDB is improving at a fast rate. With scalable and fast databases becoming critical for today's applications, this book shows you how to install, administer and program MongoDB without pretending SQL never existed.
Create clean code with Dependency Injection principles Key Features Use DI to make your code loosely coupled to manage and test your applications easily on Spring 5 and Google Guice Learn the best practices and methodologies to implement DI Write more maintainable Java code by decoupling your objects from their implementations Book Description Dependency Injection (DI) is a design pattern that allows us to remove the hard-coded dependencies and make our application loosely coupled, extendable, and maintainable. We can implement DI to move the dependency resolution from compile-time to runtime. This book will be your one stop guide to write loosely coupled code using the latest features of Java 9 with frameworks such as Spring 5 and Google Guice. We begin by explaining what DI is and teaching you about IoC containers. Then you'll learn about object compositions and their role in DI. You'll find out how to build a modular application and learn how to use DI to focus your efforts on the business logic unique to your application and let the framework handle the infrastructure work to put it all together. Moving on, you'll gain knowledge of Java 9's new features and modular framework and how DI works in Java 9. Next, we'll explore Spring and Guice, the popular frameworks for DI. You'll see how to define injection keys and configure them at the framework-specific level. After that, you'll find out about the different types of scopes available in both popular frameworks. You'll see how to manage dependency of cross-cutting concerns while writing applications through aspect-oriented programming. Towards the

end, you'll learn to integrate any third-party library in your DI-enabled application and explore common pitfalls and recommendations to build a solid application with the help of best practices, patterns, and anti-patterns in DI. What you will learn Understand the benefits of DI and fo from a tightly coupled design to a cleaner design organized around dependencies See Java 9's new features and modular framework Set up Guice and Spring in an application so that it can be used for DI Write integration tests for DI applications Use scopes to handle complex application scenarios Integrate any third-party library in your DI-enabled application Implement Aspect-Oriented Programming to handle common cross-cutting concerns such as logging, authentication, and transactions Understand IoC patterns and anti-patterns in DI Who this book is for This book is for Java developers who would like to implement DI in their application. Prior knowledge of the Spring and Guice frameworks and Java programming is assumed.

In recent years, technological advances have led to significant developments within a variety of business applications. In particular, data-driven research provides ample opportunity for enterprise growth, if utilized efficiently. Privacy and Security Policies in Big Data is a pivotal reference source for the latest research on innovative concepts on the management of security and privacy analytics within big data. Featuring extensive coverage on relevant areas such as kinetic knowledge, cognitive analytics, and parallel computing, this publication is an ideal resource for professionals, researchers, academicians, advanced-level students, and technology developers in the field of big data.

Leverage the power of MongoDB 4.x to build and administer fault-tolerant database applications Key Features Master the new features and capabilities of MongoDB 4.x Implement advanced data modeling, querying, and administration techniques in MongoDB Includes rich case-studies and best practices followed by expert MongoDB developers Book Description MongoDB is the best platform for working with non-relational data and is considered to be the smartest tool for organizing data in line with business needs. The recently released MongoDB 4.x supports ACID transactions and makes the technology an asset for enterprises across the IT and fintech sectors. This book provides expertise in advanced and niche areas of managing databases (such as modeling and querying databases) along with various administration techniques in MongoDB, thereby helping you become a successful MongoDB expert. The book helps you understand how the newly added capabilities function with the help of some interesting examples and large datasets. You will dive deeper into niche areas such as high-performance configurations, optimizing SQL statements, configuring large-scale sharded clusters, and many more. You will also master best practices in overcoming database failover, and master recovery and backup procedures for database security. By the end of the book, you will have gained a practical understanding of administering database applications both on premises and on the cloud; you will also be able to scale database applications across all servers. What you will learn Perform advanced querying techniques such as indexing and expressions Configure, monitor, and maintain a highly scalable MongoDB environment Master replication and data sharding to optimize read/write performance Administer MongoDB-based applications on premises or on the cloud Integrate MongoDB with big data sources to process huge amounts of data Deploy MongoDB on Kubernetes containers Use MongoDB in IoT, mobile, and serverless environments Who this book is for This book is ideal for MongoDB developers and database administrators who wish to become successful MongoDB experts and build scalable and fault-tolerant applications using MongoDB. It will also be useful for database professionals who wish to become certified MongoDB professionals. Some understanding of MongoDB and basic database concepts is required to get the most out of this book.

Pass the Pivotal Certified Professional exam for Core Spring, based on the latest Spring Framework 5, using source code examples, study summaries, and mock exams. This book

now includes WebFlux, reactive programming, and more found in Spring 5. You'll find a descriptive overview of certification-related Spring modules and a single example application demonstrating the use of all required Spring modules. Furthermore, in Pivotal Certified Professional Core Spring 5 Developer Exam, Second Edition, each chapter contains a brief study summary and question set, and the book's free downloadable source code package includes one mock exam (50 questions – like a real exam). After using this study guide, you will be ready to take and pass the Pivotal Certified Professional exam. When you become Pivotal Certified, you will have one of the most valuable credentials in Java. Pivotal certification helps you advance your skills and your career, and get the maximum benefit from Spring. Passing the exam demonstrates your understanding of Spring and validates your familiarity with: container-basics, aspect oriented programming (AOP), data access and transactions, Spring Security, Spring Boot, microservices, and Spring model-view-controller (MVC). Good luck! What You Will Learn Understand the core principles of Spring Framework 5 Use dependency injection Work with aspects in Spring and do AOP (aspect oriented programming) Control transactional behavior and work with SQL and NoSQL databases Create and secure web applications based on Spring MVC Get to know the format of the exam and the type of questions in it Create Spring microservices applications Who This Book Is For Spring developers who have taken the Pivotal Core Spring class are eligible to take the Pivotal Certified Professional exam.

Privacy and Security Policies in Big DataIGI Global

Manage the huMONGOus amount of data collected through your web application with MongoDB. This authoritative introduction—written by a core contributor to the project—shows you the many advantages of using document-oriented databases, and demonstrates how this reliable, high-performance system allows for almost infinite horizontal scalability. This updated second edition provides guidance for database developers, advanced configuration for system administrators, and an overview of the concepts and use cases for other people on your project. Ideal for NoSQL newcomers and experienced MongoDB users alike, this guide provides numerous real-world schema design examples. Get started with MongoDB core concepts and vocabulary Perform basic write operations at different levels of safety and speed Create complex queries, with options for limiting, skipping, and sorting results Design an application that works well with MongoDB Aggregate data, including counting, finding distinct values, grouping documents, and using MapReduce Gather and interpret statistics about your collections and databases Set up replica sets and automatic failover in MongoDB Use sharding to scale horizontally, and learn how it impacts applications Delve into monitoring, security and authentication, backup/restore, and other administrative tasks

T-SQL insiders help you tackle your toughest queries and query-tuning problems Squeeze maximum performance and efficiency from every T-SQL query you write or tune. Four leading experts take an in-depth look at T-SQL's internal architecture and offer advanced practical techniques for optimizing response time and resource usage. Emphasizing a correct understanding of the language and its foundations, the authors present unique solutions they have spent years developing and refining. All code and techniques are fully updated to reflect new T-SQL enhancements in Microsoft SQL Server 2014 and SQL Server 2012. Write

faster, more efficient T-SQL code: Move from procedural programming to the language of sets and logic Master an efficient top-down tuning methodology Assess algorithmic complexity to predict performance Compare data aggregation techniques, including new grouping sets Efficiently perform data-analysis calculations Make the most of T-SQL's optimized bulk import tools Avoid date/time pitfalls that lead to buggy, poorly performing code Create optimized BI statistical queries without additional software Use programmable objects to accelerate queries Unlock major performance improvements with In-Memory OLTP Master useful and elegant approaches to manipulating graphs About This Book For experienced T-SQL practitioners Includes coverage updated from Inside Microsoft SQL Server 2008 T-SQL Querying and Inside Microsoft SQL Server 2008 T-SQL Programming Valuable to developers, DBAs, BI professionals, and data scientists Covers many MCSE 70-464 and MCSA/MCSE 70-461 exam topics

Congratulations! You completed the MongoDB application within the given tight timeframe and there is a party to celebrate your application's release into production. Although people are congratulating you at the celebration, you are feeling some uneasiness inside. To complete the project on time required making a lot of assumptions about the data, such as what terms meant and how calculations are derived. In addition, the poor documentation about the application will be of limited use to the support team, and not investigating all of the inherent rules in the data may eventually lead to poorly-performing structures in the not-so-distant future. Now, what if you had a time machine and could go back and read this book. You would learn that even NoSQL databases like MongoDB require some level of data modeling. Data modeling is the process of learning about the data, and regardless of technology, this process must be performed for a successful application. You would learn the value of conceptual, logical, and physical data modeling and how each stage increases our knowledge of the data and reduces assumptions and poor design decisions. Read this book to learn how to do data modeling for MongoDB applications, and accomplish these five objectives: Understand how data modeling contributes to the process of learning about the data, and is, therefore, a required technique, even when the resulting database is not relational. That is, NoSQL does not mean NoDataModeling! Know how NoSQL databases differ from traditional relational databases, and where MongoDB fits. Explore each MongoDB object and comprehend how each compares to their data modeling and traditional relational database counterparts, and learn the basics of adding, querying, updating, and deleting data in MongoDB. Practice a streamlined, template-driven approach to performing conceptual, logical, and physical data modeling. Recognize that data modeling does not always have to lead to traditional data models! Distinguish top-down from bottom-up development approaches and complete a top-down case study which ties all of the modeling techniques together. This book is written for anyone who is working with, or will be working

with MongoDB, including business analysts, data modelers, database administrators, developers, project managers, and data scientists. There are three sections: In Section I, Getting Started, we will reveal the power of data modeling and the tight connections to data models that exist when designing any type of database (Chapter 1), compare NoSQL with traditional relational databases and where MongoDB fits (Chapter 2), explore each MongoDB object and comprehend how each compares to their data modeling and traditional relational database counterparts (Chapter 3), and explain the basics of adding, querying, updating, and deleting data in MongoDB (Chapter 4). In Section II, Levels of Granularity, we cover Conceptual Data Modeling (Chapter 5), Logical Data Modeling (Chapter 6), and Physical Data Modeling (Chapter 7). Notice the “ing” at the end of each of these chapters. We focus on the process of building each of these models, which is where we gain essential business knowledge. In Section III, Case Study, we will explain both top down and bottom up development approaches and go through a top down case study where we start with business requirements and end with the MongoDB database. This case study will tie together all of the techniques in the previous seven chapters. Nike Senior Data Architect Ryan Smith wrote the foreword. Key points are included at the end of each chapter as a way to reinforce concepts. In addition, this book is loaded with hands-on exercises, along with their answers provided in Appendix A. Appendix B contains all of the book’s references and Appendix C contains a glossary of the terms used throughout the text.

In recent times, the popularity of cloud computing has increased for businesses due to several reasons, such as cost savings, increased productivity, the enhanced speed with better efficiency, performance, as well as security. Along with Amazon Web Services (AWS), Salesforce’s CRM system and Microsoft Azure are also popular public cloud offerings. And due to the cloud’s increasing popularity, companies all around the world are in search of more cloud computing experts, as more organizations are now switching from the classical server infrastructure to cloud solutions to implement critical applications. With three business models: Platform as a Service (PaaS), software as a Service (SaaS), and Infrastructure as a Service (IaaS), it is likely that in the future, the system and network administrator jobs will be replaced if you are not updated with your skills. Cloud computing is helping businesses automate and configure their systems, as many are now transforming their onsite data center to clouds. Hence, there will be a huge demand for experts configuring Cloud Computing Infrastructure and APIs into their applications and storage. This cloud computing guide aims to help readers understand everything about cloud computing, from basic concepts to terminologies, various cloud tools and services, and also ways to build and scale up your cloud career.

Master the craft of predictive modeling in R by developing strategy, intuition, and a solid foundation in essential conceptsAbout This Book* Grasping the major methods of predictive modeling and moving beyond black box thinking to a

deeper level of understanding* Leveraging the flexibility and modularity of R to experiment with a range of different techniques and data types* Packed with practical advice and tips explaining important concepts and best practices to help you understand quickly and easilyWho This Book Is ForAlthough budding data scientists, predictive modelers, or quantitative analysts with only basic exposure to R and statistics will find this book to be useful, the experienced data scientist professional wishing to attain master level status , will also find this book extremely valuable.. This book assumes familiarity with the fundamentals of R, such as the main data types, simple functions, and how to move data around. Although no prior experience with machine learning or predictive modeling is required, there are some advanced topics provided that will require more than novice exposure.What You Will Learn* Master the steps involved in the predictive modeling process* Grow your expertise in using R and its diverse range of packages* Learn how to classify predictive models and distinguish which models are suitable for a particular problem* Understand steps for tidying data and improving the performing metrics* Recognize the assumptions, strengths, and weaknesses of a predictive model* Understand how and why each predictive model works in R* Select appropriate metrics to assess the performance of different types of predictive model* Explore word embedding and recurrent neural networks in R* Train models in R that can work on very large datasetsIn DetailR offers a free and open source environment that is perfect for both learning and deploying predictive modeling solutions. With its constantly growing community and plethora of packages, R offers the functionality to deal with a truly vast array of problems.The book begins with a dedicated chapter on the language of models and the predictive modeling process. You will understand the learning curve and the process of tidying data. Each subsequent chapter tackles a particular type of model, such as neural networks, and focuses on the three important questions of how the model works, how to use R to train it, and how to measure and assess its performance using real-world datasets. How do you train models that can handle really large datasets? This book will also show you just that. Finally, you will tackle the really important topic of deep learning by implementing applications on word embedding and recurrent neural networks.By the end of this book, you will have explored and tested the most popular modeling techniques in use on real- world datasets and mastered a diverse range of techniques in predictive analytics using R.Style and approachThis book takes a step-by-step approach in explaining the intermediate to advanced concepts in predictive analytics. Every concept is explained in depth, supplemented with practical examples applicable in a real-world setting.
Learn how to leverage MongoDB with your Python applications, using the hands-on recipes in this book. You get complete code samples for tasks such as making fast geo queries for location-based apps, efficiently indexing your user documents for social-graph lookups, and many other scenarios. This guide explains the basics of the document-oriented database and shows you how to set

up a Python environment with it. Learn how to read and write to MongoDB, apply idiomatic MongoDB and Python patterns, and use the database with several popular Python web frameworks. You'll discover how to model your data, write effective queries, and avoid concurrency problems such as race conditions and deadlocks. The recipes will help you: Read, write, count, and sort documents in a MongoDB collection Learn how to use the rich MongoDB query language Maintain data integrity in replicated/distributed MongoDB environments Use embedding to efficiently model your data without joins Code defensively to avoid keyerrors and other bugs Apply atomic operations to update game scores, billing systems, and more with the fast accounting pattern Use MongoDB with the Pylons 1.x, Django, and Pyramid web frameworks

This book contains two original and high-quality practice tests of 80 questions each - with answers and explanations - to help you pass the Redis Certified Developer exam.* Just like the real exam, each practice test has 80 questions, for 90 minutes, with a 72% (500/700) passing score.* Same domains as in the actual exam: General, Keys, Data Structures, Data Modeling, Debugging, Performance, Clustering.* All questions closely emulate most from the actual exam, without duplicating them.* Unlike the real exam, you'll know right away what questions you missed, and what the correct answers are.* Detailed explanations with external references for any possible choice, in each practice test question.* Just like the actual exam, all questions have four choices, and most are single-select.Same e-book as LIVE practice tests on Udemy: "Become a Redis Certified Developer: Practice Exams"

A comprehensive guide to building full stack applications covering frontend and server-side programming, data management, and web security Key Features Unleash the power of React Hooks to build interactive and complex user interfaces Build scalable full stack applications designed to meet demands of modern users Understand how the Axios library simplifies CRUD operations Book Description React Hooks have changed the way React components are coded. They enable you to write components in a more intuitive way without using classes, which makes your code easier to read and maintain. Building on from the previous edition, this book is updated with React Hooks and the latest changes introduced in create-react-app and Spring Boot 2.1. This book starts with a brief introduction to Spring Boot. You'll understand how to use dependency injection and work with the data access layer of Spring using Hibernate as the ORM tool. You'll then learn how to build your own RESTful API endpoints for web applications. As you advance, the book introduces you to other Spring components, such as Spring Security to help you secure the backend. Moving on, you'll explore React and its app development environment and components for building your frontend. Finally, you'll create a Docker container for your application by implementing the best practices that underpin professional full stack web development. By the end of this book, you'll be equipped with all the knowledge you need to build modern full stack applications with Spring Boot

for the backend and React for the frontend. What you will learn Create a RESTful web service with Spring Boot Grasp the fundamentals of dependency injection and how to use it for backend development Discover techniques for securing the backend using Spring Security Understand how to use React for frontend programming Benefit from the Heroku cloud server by deploying your application to it Delve into the techniques for creating unit tests using JUnit Explore the Material UI component library to make more user-friendly user interfaces Who this book is for If you are a Java developer familiar with Spring, but are new to building full stack applications, this is the book for you.

Learn advanced C# concepts and techniques such as building caches, cryptography, and parallel programming by solving interesting programming challenges Key Features Gain useful insights on advanced C# programming topics and APIs Use locking and cached values to solve parallel problems Take advantage of .NET's cryptographic tools to encrypt and decrypt strings Book Description C# is a multi-paradigm programming language. The Modern C# Challenge covers with aspects of the .NET Framework such as the Task Parallel Library (TPL) and CryptoAPI. It also encourages you to explore important programming trade-offs such as time versus space or simplicity. There may be many ways to solve a problem and there is often no single right way, but some solutions are definitely better than others. This book has combined these solutions to help you solve real-world problems with C#. In addition to describing programming trade-offs, The Modern C# Challenge will help you build a useful toolkit of techniques such as value caching, statistical analysis, and geometric algorithms. By the end of this book, you will have walked through challenges in C# and explored the .NET Framework in order to develop program logic for real-world applications. What you will learn Perform statistical calculations such as finding the standard deviation Find combinations and permutations Search directories for files matching patterns using LINQ and PLINQ Find areas of polygons using geometric operations Randomize arrays and lists with extension methods Explore the filesystem to find duplicate files Simulate complex systems and implement equality in a class Use cryptographic techniques to encrypt and decrypt strings and files Who this book is for The Modern C# Challenge is for all C# developers of different abilities wanting to solve real-world problems. There are problems for everyone at any level of expertise in C#

Discover the latest features of Spring framework by building robust, fast, and reactive web applications Key Features Take advantage of all the features of Spring 5.0 with third party tools to build a robust back end Secure Spring based web application using Spring Security framework with LDAP and OAuth protocol Develop robust and scalable microservice based applications on Spring Cloud, using Spring Boot Book Description Spring makes it easy to create RESTful applications, merge with social services, communicate with modern databases, secure your system, and make your code modular and easy to test. With the arrival of Spring Boot, developers can really focus on the code and deliver great value, with minimal contour. This book will show you how to build various projects in Spring 5.0, using its features and third party tools. We'll start by creating a web application using Spring MVC, Spring Data, the World Bank API for some statistics on different countries, and MySQL database. Moving ahead, you'll build a RESTful web services application using Spring WebFlux framework. You'll be then taken through creating a Spring Boot-based simple blog management system, which uses Elasticsearch as the data store. Then, you'll use Spring Security with the LDAP libraries for authenticating users and create a central authentication and authorization server using OAuth 2 protocol. Further, you'll understand how to create Spring Boot-based monolithic application using JHipster. Toward the end, we'll create an online book store with microservice architecture using Spring Cloud and Netflix OSS components, and a task management system

using Spring and Kotlin. By the end of the book, you'll be able to create coherent and flexible real-time web applications using Spring Framework. What you will learn Build Spring based application using Bootstrap template and JQuery Understand the Spring WebFlux framework and how it uses Reactor library Interact with Elasticsearch for indexing, querying, and aggregating data Create a simple monolithic application using JHipster Use Spring Security and Spring Security LDAP and OAuth libraries for Authentication Develop a microservice-based application with Spring Cloud and Netflix Work on Spring Framework with Kotlin Who this book is for This book is for competent Spring developers who wish to understand how to develop complex yet flexible applications with Spring. You must have a good knowledge of Java programming and be familiar with the basics of Spring.

A catalog of solutions to commonly occurring design problems, presenting 23 patterns that allow designers to create flexible and reusable designs for object-oriented software. Describes the circumstances in which each pattern is applicable, and discusses the consequences and trade-offs of using the pattern within a larger design. Patterns are compiled from real systems, and include code for implementation in object-oriented programming languages like C++ and Smalltalk. Includes a bibliography. Annotation copyright by Book News, Inc., Portland, OR

Manage, fine-tune, secure and deploy your MongoDB solution with ease with the help of practical recipes About This Book Configure and deploy your MongoDB instance securely, without any hassle Optimize your database's query performance, perform scale-out operations, and make your database highly available Practical guide with a recipe-based approach to help you tackle any problem in the application and database administration aspects of MongoDB Who This Book Is For Database administrators with a basic understanding of the features of MongoDB and who want to professionally configure, deploy, and administer a MongoDB database, will find this book essential. If you are a MongoDB developer and want to get into MongoDB administration, this book will also help you. What You Will Learn Install and deploy MongoDB in production Manage and implement optimal indexes Optimize monitoring in MongoDB Fine-tune the performance of your queries Debug and diagnose your database's performance Optimize database backups and recovery and ensure high availability Make your MongoDB instance scalable Implement security and user authentication features in MongoDB Master optimal cloud deployment strategies In Detail MongoDB is a high-performance and feature-rich NoSQL database that forms the backbone of the systems that power many different organizations. Packed with many features that have become essential for many different types of software professional and incredibly easy to use, this cookbook contains more than 100 recipes to address the everyday challenges of working with MongoDB. Starting with database configuration, you will understand the indexing aspects of MongoDB. The book also includes practical recipes on how you can optimize your database query performance, perform diagnostics, and query debugging. You will also learn how to implement the core administration tasks required for high-availability and scalability, achieved through replica sets and sharding, respectively. You will also implement server security concepts such as authentication, user management, role-based access models, and TLS configuration. You will also learn how to back up and recover your database efficiently and monitor server performance. By the end of this book, you will have all the information you need—along with tips, tricks, and best practices—to implement a high-performance MongoDB solution. Style and approach This practical book follows a problem-solution approach to help you tackle any issues encountered while performing MongoDB administrative tasks. Each recipe is detailed, and explained in a very easy to understand manner

Build an application from backend to browser with Node.js, and kick open the doors to real-time event programming. With this hands-on book, you'll learn how to create a social network application similar to LinkedIn and Facebook, but with a real-time twist. And you'll build it with just one programming language: JavaScript. If you're an experienced web developer

unfamiliar with JavaScript, the book's first section introduces you to the project's core technologies: Node.js, Backbone.js, and the MongoDB data store. You'll then launch into the project—a highly responsive, highly scalable application—guided by clear explanations and lots of code examples. Learn about key modules in Node.js for building real-time apps Use the Backbone.js framework to write clean browser code, and maintain better data integration with MongoDB Structure project files as a foundation for code that will arrive later Create user accounts and learn how to secure the data Use Backbone.js templates to build the application's UIs, and integrate access control with Node.js Develop a contact list to help users link to and track other accounts Use Socket.io to create real-time chat functionality Extend your UIs to give users up-to-the-minute information

This comprehensive guide book begins by explaining what makes MongoDB unique. A series of tutorials designed for MongoDB mastery then leads into detailed examples for leveraging MongoDB in e-commerce, social networking, analytics, and other common applications.

The book, gathering the proceedings of the Future of Information and Communication Conference (FICC) 2018, is a remarkable collection of chapters covering a wide range of topics in areas of information and communication technologies and their applications to the real world. It includes 104 papers and posters by pioneering academic researchers, scientists, industrial engineers, and students from all around the world, which contribute to our understanding of relevant trends of current research on communication, data science, ambient intelligence, networking, computing, security and Internet of Things. This book collects state of the art chapters on all aspects of information science and communication technologies, from classical to intelligent, and covers both theory and applications of the latest technologies and methodologies. Presenting state-of-the-art intelligent methods and techniques for solving real-world problems along with a vision of the future research, this book is an interesting and useful resource.

Getting started with MongoDB is easy, but once you begin building applications with it, you'll face some complex issues. What are the tradeoffs between normalized and denormalized data? How do you handle replica set failure and failover? This collection of MongoDB tips, tricks, and hacks helps you resolve issues with everything from application design and implementation to data safety and monitoring. You get specific guidance in five topic areas directly from engineers at 10gen, the company that develops and supports this open source database: Application Design Tips: What to keep in mind when designing your schema Implementation Tips: Programming applications against MongoDB Optimization Tips: Speeding up your applications Data Safety Tips: Using replication and journaling to keep data safe—without sacrificing too much performance Administration Tips: How to configure MongoDB and keep it running smoothly

Get complete coverage of all six CCFP exam domains developed by the International Information Systems Security Certification Consortium (ISC)2. Written by a leading computer security expert, this authoritative guide fully addresses cyber forensics techniques, standards, technologies, and legal and ethical principles. You'll find learning objectives at the beginning of each chapter, exam tips, practice exam questions, and in-depth explanations. Designed to help you pass the exam with ease, this definitive volume also serves as an essential on-the-job reference. COVERS ALL SIX EXAM DOMAINS: Legal and ethical principles Investigations Forensic science Digital forensics Application forensics Hybrid and emerging technologies ELECTRONIC CONTENT INCLUDES: 250 practice exam questions Test engine that provides full-length practice exams and customized quizzes by chapter or by exam domain

Use the two popular web development stacks, Node.js and MongoDB, to build full-featured web applications About This Book Learn the new ECMAScript along with Node

8 and MongoDB to make your application more effective. Get the up-to-date information required to launch your first application prototype using the latest versions of Node.js and MongoDB. A practical guide with clear instructions to designing and developing a complete web application from start to finish using trending frameworks such as angular4 and hapi Who This Book Is For The book is designed for JavaScript developers of any skill level who want to get up-and-running using Node.js and MongoDB to build full-featured web applications. A basic understanding of JavaScript and HTML is the only prerequisite for this book. What You Will Learn Work with Node.js building blocks Write and configure a web server using Node.js powered by the Express.js framework Build dynamic HTML pages using the Handlebars template engine Persist application data using MongoDB and Mongoose ODM Test your code using automated testing tools such as the Mocha framework Automate test cases using Gulp Reduce your web development time by integrating third-party tools for web interaction. Deploy a development environment to the cloud using services such as Heroku, Amazon Web Services, and Microsoft Azure Explore single-page application frameworks to take your web applications to the next level In Detail Node.js builds fast, scalable network applications while MongoDB is the perfect fit as a high-performance, open source NoSQL database solution. The combination of these two technologies offers high performance and scalability and helps in building fast, scalable network applications. Together they provide the power for manage any form of data as well as speed of delivery. This book will help you to get these two technologies working together to build web applications quickly and easily, with effortless deployment to the cloud. You will also learn about angular 4, which consumes pure JSON APOIs from a hapi server. The book begins by setting up your development environment, running you through the steps necessary to get the main application server up-and-running. Then you will see how to use Node.js to connect to a MongoDB database and perform data manipulations. From here on, the book will take you through integration with third-party tools to interact with web apps. You will see how to use controllers and view models to generate reusable code that will reduce development time. Toward the end, the book supplies tests to properly execute your code and take your skills to the next level with the most popular frameworks for developing web applications. By the end of the book, you will have a running web application developed with MongoDB, Node.js, and some of the most powerful and popular frameworks. Style and approach A practical guide with clear instructions to designing and developing a complete web application from start to finish

Whether you’re building a social media site or an internal-use enterprise application, this hands-on guide shows you the connection between MongoDB and the business problems it’s designed to solve. You’ll learn how to apply MongoDB design patterns to several challenging domains, such as ecommerce, content management, and online gaming. Using Python and JavaScript code examples, you’ll discover how MongoDB lets you scale your data model while simplifying the development process. Many businesses launch NoSQL databases without understanding the techniques for using their features most effectively. This book demonstrates the benefits of document embedding, polymorphic schemas, and other MongoDB patterns for tackling specific big data use cases, including: Operational intelligence: Perform real-time analytics of business data Ecommerce: Use MongoDB as a product catalog master or inventory

management system Content management: Learn methods for storing content nodes, binary assets, and discussions Online advertising networks: Apply techniques for frequency capping ad impressions, and keyword targeting and bidding Social networking: Learn how to store a complex social graph, modeled after Google+ Online gaming: Provide concurrent access to character and world data for a multiplayer role-playing game

Accelerate your enterprise search engine and bring relevancy in your search analytics Key Features A practical guide in building expertise with Indexing, Faceting, Clustering and Pagination Master the management and administration of Enterprise Search Applications and services seamlessly Handle multiple data inputs such as JSON, xml, pdf, doc, xls,ppt, csv and much more. Book Description Apache Solr is the only standalone enterprise search server with a REST-like application interface. providing highly scalable, distributed search and index replication for many of the world's largest internet sites. To begin with, you would be introduced to how you perform full text search, multiple filter search, perform dynamic clustering and so on helping you to brush up the basics of Apache Solr. You will also explore the new features and advanced options released in Apache Solr 7.x which will get you numerous performance aspects and making data investigation simpler, easier and powerful. You will learn to build complex queries, extensive filters and how are they compiled in your system to bring relevance in your search tools. You will learn to carry out Solr scoring, elements affecting the document score and how you can optimize or tune the score for the application at hand. You will learn to extract features of documents, writing complex queries in re-ranking the documents. You will also learn advanced options helping you to know what content is indexed and how the extracted content is indexed. Throughout the book, you would go through complex problems with solutions along with varied approaches to tackle your business needs. By the end of this book, you will gain advanced proficiency to build out-of-box smart search solutions for your enterprise demands. What you will learn Design schema using schema API to access data in the database Advance querying and fine-tuning techniques for better performance Get to grips with indexing using Client API Set up a fault tolerant and highly available server with newer distributed capabilities, SolrCloud Explore Apache Tika to upload data with Solr Cell Understand different data operations that can be done while indexing Master advanced querying through Velocity Search UI, faceting and Query Re-ranking, pagination and spatial search Learn to use JavaScript, Python, SolrJ and Ruby for interacting with Solr Who this book is for The book would rightly appeal to developers, software engineers, data engineers and database architects who are building or seeking to build enterprise-wide effective search engines for business intelligence. Prior experience of Apache Solr or Java programming is must to take the best of this book.

Summary Getting MEAN, Second Edition teaches you how to develop full-stack web applications using the MEAN stack. This edition was completely revised and updated to cover MongoDB 4, Express 4, Angular 7, Node 11, and the latest mainstream release of JavaScript ES2015. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Juggling languages mid-application can radically slow down a full-stack web project. The MEAN stack—MongoDB, Express, Angular, and Node—uses JavaScript end to end, maximizing developer productivity and minimizing context switching. And you'll love the results!

MEAN apps are fast, powerful, and beautiful. About the Book Getting MEAN, Second Edition teaches you how to develop full-stack web applications using the MEAN stack. Practical from the very beginning, the book helps you create a static site in Express and Node. Expanding on that solid foundation, you'll integrate a MongoDB database, build an API, and add an authentication system. Along the way, you'll get countless pro tips for building dynamic and responsive data-driven web applications! What's inside MongoDB 4, Express 4, Angular 7, and Node.js 11 MEAN stack architecture Mobile-ready web apps Best practices for efficiency and reusability About the Reader Readers should be comfortable with standard web application designs and ES2015-style JavaScript. About the Author Simon Holmes and Clive Harber are full-stack developers with decades of experience in JavaScript and other leading-edge web technologies. Table of Contents PART 1 - SETTING THE BASELINE Introducing full-stack development Designing a MEAN stack architecture PART 2 - BUILDING A NODE WEB APPLICATION Creating and setting up a MEAN project Building a static site with Node and Express Building a data model with MongoDB and Mongoose Writing a REST API: Exposing the MongoDB database to the application Consuming a REST API: Using an API from inside Express PART 3 - ADDING A DYNAMIC FRONT END WITH ANGULAR Creating an Angular application with TypeScript Building a single-page application with Angular: Foundations Building a single-page application with Angular: The next level PART 4 - MANAGING AUTHENTICATION AND USER SESSIONS Authenticating users, managing sessions, and securing APIs Using an authentication API in Angular applications

Summary MongoDB in Action, Second Edition is a completely revised and updated version. It introduces MongoDB 3.0 and the document-oriented database model. This perfectly paced book gives you both the big picture you'll need as a developer and enough low-level detail to satisfy system engineers. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology This document-oriented database was built for high availability, supports rich, dynamic schemas, and lets you easily distribute data across multiple servers. MongoDB 3.0 is flexible, scalable, and very fast, even with big data loads. About the Book MongoDB in Action, Second Edition is a completely revised and updated version. It introduces MongoDB 3.0 and the document-oriented database model. This perfectly paced book gives you both the big picture you'll need as a developer and enough low-level detail to satisfy system engineers. Lots of examples will help you develop confidence in the crucial area of data modeling. You'll also love the deep explanations of each feature, including replication, auto-sharding, and deployment. What's Inside Indexes, queries, and standard DB operations Aggregation and text searching Map-reduce for custom aggregations and reporting Deploying for scale and high availability Updated for Mongo 3.0 About the Reader Written for developers. No previous MongoDB or NoSQL experience is assumed. About the Authors After working at MongoDB, Kyle Banker is now at a startup. Peter Bakkum is a developer with MongoDB expertise. Shaun Verch has worked on the core server team at MongoDB. A Genentech engineer, Doug Garrett is one of the winners of the MongoDB Innovation Award for Analytics. A software architect, Tim Hawkins has led search engineering at Yahoo Europe. Technical Contributor: Wouter Thielen. Technical Editor: Mihalis Tsoukalos. Table of Contents PART 1 GETTING STARTED A database for the modern

web MongoDB through the JavaScript shell Writing programs using MongoDB PART 2 APPLICATION DEVELOPMENT IN MONGODB Document-oriented data Constructing queries Aggregation Updates, atomic operations, and deletes PART 3 MONGODB MASTERY Indexing and query optimization Text search WiredTiger and pluggable storage Replication Scaling your system with sharding Deployment and administration What would happen if you optimized a data store for the operations application developers actually use? You'd arrive at MongoDB, the reliable document-oriented database. With this concise guide, you'll learn how to build elegant database applications with MongoDB and PHP. Written by the Chief Solutions Architect at 10gen—the company that develops and supports this open source database—this book takes you through MongoDB basics such as queries, read-write operations, and administration, and then dives into MapReduce, sharding, and other advanced topics. Get out of the relational database rut, and take advantage of a high-performing system optimized for operations and scale. Learn step-by-step the tools you need to build PHP applications with MongoDB Perform Create, Read, Update, and Delete (CRUD) operations, and learn how to perform queries to retrieve data Administer your database, and access and manipulate data with the MongoDB Shell Use functions to work with sets, arrays, and multiple documents to perform synchronous, asynchronous, and atomic operations Discover PHP's community tools and libraries, and why they're valuable Work with regular expressions, aggregation, MapReduce, replication, and sharding