
Site To Download Download MongoDb Tutorial Pdf Version Tutorialspoint

Thank you very much for reading **Download MongoDB Tutorial Pdf Version Tutorialspoint**. As you may know, people have look numerous times for their favorite novels like this Download MongoDB Tutorial Pdf Version Tutorialspoint, but end up in malicious downloads.

Rather than enjoying a good book with a cup of tea in the afternoon, instead they juggled with some infectious virus inside their laptop.

Download MongoDB Tutorial Pdf Version Tutorialspoint is available in our book collection an online access to it is set as public so you can get it instantly.

Our digital library hosts in multiple countries, allowing you to get the most less latency time to download any of our books like this one.

Merely said, the Download MongoDB Tutorial Pdf Version Tutorialspoint is universally compatible with any devices to read

5DR8N3 - ARMSTRONG HAYDEN

Get complete instructions for manipulating, processing, cleaning, and crunching datasets in Python. Updated for Python 3.6, the second edition of this hands-on guide is packed with practical case studies that show you how to solve a broad set of data analysis problems effectively. You'll learn the latest versions of pandas, NumPy, IPython, and Jupyter in the process. Written by Wes McKinney, the creator of the Python pandas project, this book is a practical, modern introduction to data science tools in Python. It's ideal for analysts new to Python and for Python programmers new to data science and scientific computing. Data files and related material are available on GitHub. Use the IPython shell and Jupyter notebook for exploratory computing. Learn basic and advanced features in NumPy (Numerical Python) Get started with data analysis tools in the pandas li-

brary Use flexible tools to load, clean, transform, merge, and reshape data Create informative visualizations with matplotlib Apply the pandas groupby facility to slice, dice, and summarize datasets Analyze and manipulate regular and irregular time series data Learn how to solve real-world data analysis problems with thorough, detailed examples Harness the latest features of MongoDB 3 with this collection of 80 recipes - from managing cloud platforms to app development, this book is a vital resource About This Book Get to grips with the latest features of MongoDB 3 Interact with the MongoDB server and perform a wide range of query operations from the shell From administration to automation, this cookbook keeps you up to date with the world's leading NoSQL database Who This Book Is For This book is engineered for anyone who is interested in managing data in an easy and efficient way using MongoDB. You do not need any prior

knowledge of MongoDB, but it would be helpful if you have some programming experience in either Java or Python. What You Will Learn Install, configure, and administer MongoDB sharded clusters and replica sets Begin writing applications using MongoDB in Java and Python languages Initialize the server in three different modes with various configurations Perform cloud deployment and introduce PaaS for Mongo Discover frameworks and products built to improve developer productivity using Mongo Take an in-depth look at the Mongo programming driver APIs in Java and Python Set up enterprise class monitoring and backups of MongoDB In Detail MongoDB is a high-performance and feature-rich NoSQL database that forms the backbone of the systems that power many different organizations - it's easy to see why it's the most popular NoSQL database on the market. Packed with many features that have become essential for many different types of software professionals and incredibly easy to use, this cookbook contains many solutions to the everyday challenges of MongoDB, as well as guidance on effective techniques to extend your skills and capabilities. This book starts with how to initialize the server in three different modes with various configurations. You will then be introduced to programming language drivers in both Java and Python. A new feature in MongoDB 3 is that you can connect to a single node using Python, set to make MongoDB even more popular with anyone working with Python. You will then learn a range of further topics including advanced query operations, monitoring and backup using MMS, as well as some very useful administration recipes including SCRAM-SHA-1 Authentication. Beyond that, you will also find recipes on cloud deployment, including guidance on

how to work with Docker containers alongside MongoDB, integrating the database with Hadoop, and tips for improving developer productivity. Created as both an accessible tutorial and an easy to use resource, on hand whenever you need to solve a problem, MongoDB Cookbook will help you handle everything from administration to automation with MongoDB more effectively than ever before. Style and approach Every recipe is explained in a very simple set-by-step manner yet is extremely comprehensive.

Learn how to build a wide range of scalable real-world web applications using a professional development toolkit. If you already know the basics of Node.js, now is the time to discover how to bring it to production level by leveraging its vast ecosystem of packages. With this book, you'll work with a varied collection of standards and frameworks and see how all those pieces fit together. Practical Node.js takes you from installing all the necessary modules to writing full-stack web applications. You'll harness the power of the Express.js and Hapi frameworks, the MongoDB database with Mongoose and Mongooskin and Mongoose. You'll also work with Pug and Handlebars template engines, Stylus and LESS CSS languages, OAuth and Everyauth libraries, and the Socket.IO and Derby libraries, and everything in between. This exciting second edition is fully updated for ES6/ES2015 and also covers how to deploy to Heroku and AWS, daemonize apps, and write REST APIs. You'll build full-stack real-world Node.js apps from scratch, and also discover how to write your own Node.js modules and publish them on NPM. You already know what Node.js is; now learn what you can do with it and how far you can take it! What You'll Learn Manipulate data from the mongo

console Use the Mongoskin and Mongoose MongoDB libraries Build REST API servers with Express and Hapi Deploy apps to Heroku and AWS Test services with Mocha, Expect and TravisCI Utilize sessions for authentication Implement a third-party OAuth strategy with Everyauth Apply Redis, domains, WebSockets, and clusters Write your own Node.js module, and publish it on NPM Who This Book Is For Web developers who have some familiarity with the basics of Node.js and want to learn how to use it to build apps in a professional environment.

You can choose several data access frameworks when building Java enterprise applications that work with relational databases. But what about big data? This hands-on introduction shows you how Spring Data makes it relatively easy to build applications across a wide range of new data access technologies such as NoSQL and Hadoop. Through several sample projects, you'll learn how Spring Data provides a consistent programming model that retains NoSQL-specific features and capabilities, and helps you develop Hadoop applications across a wide range of use-cases such as data analysis, event stream processing, and workflow. You'll also discover the features Spring Data adds to Spring's existing JPA and JDBC support for writing RDBMS-based data access layers. Learn about Spring's template helper classes to simplify the use of database-specific functionality Explore Spring Data's repository abstraction and advanced query functionality Use Spring Data with Redis (key/value store), HBase (column-family), MongoDB (document database), and Neo4j (graph database) Discover the GemFire distributed data grid solution Export Spring Data JPA-managed entities to the Web as RESTful web services Simplify

the development of HBase applications, using a lightweight object-mapping framework Build example big-data pipelines with Spring Batch and Spring Integration

Python is an easy to learn, powerful programming language. It has efficient high-level data structures and a simple but effective approach to object-oriented programming. Python's elegant syntax and dynamic typing, together with its interpreted nature, make it an ideal language for scripting and rapid application development in many areas on most platforms. The Python interpreter and the extensive standard library are freely available in source or binary form for all major platforms from the Python Web site, <https://www.python.org/>, and may be freely distributed. The same site also contains distributions of and pointers to many free third party Python modules, programs and tools, and additional documentation. The Python interpreter is easily extended with new functions and data types implemented in C or C++ (or other languages callable from C). Python is also suitable as an extension language for customizable applications. This tutorial introduces the reader informally to the basic concepts and features of the python language and system. It helps to have a Python interpreter handy for hands-on experience, but all examples are self contained, so the tutorial can be read off-line as well. For a description of standard objects and modules, see [library-index](#). [reference-index](#) gives a more formal definition of the language. To write extensions in C or C++, read [extending-index](#) and [c-api-index](#). There are also several books covering Python in depth. This tutorial does not attempt to be comprehensive and cover every single feature, or even every commonly

used feature. Instead, it introduces many of Python's most noteworthy features, and will give you a good idea of the language's flavor and style. After reading it, you will be able to read and write Python modules and programs, and you will be ready to learn more about the various Python library modules described in `library-index`. The Glossary is also worth going through.

This educational book introduces emerging developers to computer programming through the Python software development language, and serves as a reference book for experienced developers looking to learn a new language or re-familiarize themselves with computational logic and syntax.

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 collec-

tions 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

Rapid Prototyping with JS: Agile JavaScript Development is a hands-on book which introduces you to agile JavaScript web and mobile software development using the latest cutting-edge front-end and back-end technologies including: Node.js, Backbone.js, MongoDB and others. More information at <http://rpjs.co>. This book was borne out of frustration. I have been in software engineering for many years, and when I started learning Node.js and Backbone.js, I learned the hard way that their official documentation and the Internet lack in quick start guides and examples. Needless to say, it was virtually impossible to find all of the tutorials for JS-related modern technologies in one place. The best way to learn is to do, right? Therefore, I've used the approach of small simple examples, i.e., quick start guides, to expose myself to the new cool tech. After I was done with the basic apps, I needed some references and organization. I started to write this manual mostly for myself, so I can understand the concepts better and refer to the samples later. Then StartupMonthly and I taught a few 2-day intensive classes on the same subject -- helping experienced developers to jump-start their careers with agile JavaScript development. The manual we used was updated and iterated many times based on the feedback received. The end result is this book. What to Expect A typical reader of RPJS should expect a collection of quick start guides, tutorials and suggestions (e.g., Git workflow). There is a lot of coding and

not much theory. All the theory we cover is directly related to some of the practical aspects, and essential for better understanding of technologies and specific approaches in dealing with them, e.g., JSONP and cross-domain calls. In addition to coding examples, the book covers virtually all setup and deployment step-by-step. You'll learn on the examples of Chat web/mobile applications starting with front-end components. There are a few versions of these applications, but by the end we'll put front-end and back-end together and deploy to the production environment. The Chat application contains all of the necessary components typical for a basic web app, and will give you enough confidence to continue developing on your own, apply for a job/promotion or build a startup! Who This Book is For The book is designed for advanced-beginner and intermediate-level web and mobile developers: somebody who has been (or still is) an expert in other languages like Ruby on Rails, PHP, Perl, Python or/and Java. The type of a developer who wants to learn more about JavaScript and Node.js related techniques for building web and mobile application prototypes fast. Our target user doesn't have time to dig through voluminous (or tiny, at the other extreme) official documentation. The goal of Rapid Prototyping with JS is not to make an expert out of a reader, but to help him/her to start building apps as soon as possible. Rapid Prototyping with JS: Agile JavaScript Development, as you can tell from the name, is about taking your idea to a functional prototype in the form of a web or a mobile application as fast as possible. This thinking adheres to the Lean Startup³⁰ methodology; therefore, this book would be more valuable to startup founders, but big companies' employees might also find it useful, especial-

ly if they plan to add new skills to their resumes. What This Book is Not Rapid Prototyping with JS is neither a comprehensive book on several frameworks, libraries or technologies (or just a particular one), nor a reference for all the tips and tricks of web development. Examples similar to ones in this book might be publicly available online. Even more so, if you're not familiar with fundamental programming concepts like loops, if/else statements, arrays, hashes, object and functions, you won't find them in Rapid Prototyping with JS.

Assemble the complete stack required to build a modern web app using MongoDB, Express, React, and Node. This book also covers many other complementary tools: React Router, GraphQL, React-Bootstrap, Babel, and Webpack. This new edition will use the latest version of React (React 16) and the latest React Router (React Router 4), which has a significantly different approach to routing compared to React Router 2 which was used in the first edition of the book. Though the primary focus of Pro MERN Stack is to equip you with all that is required to build a full-fledged web application, a large portion of the book will be devoted to React 16. The popular MEAN (MongoDB, Express, AngularJS, Node) stack introduced Single Page Apps (SPAs) and front-end Model-View-Controller (MVC) as new and efficient paradigms. Facebook's React is a technology that competes indirectly with AngularJS. It is not a full-fledged MVC framework. It is a JavaScript library for building user interfaces (in some sense the View part). Yet, it is possible to build a web app by replacing AngularJS with React - hence the term MERN stack What You Will Learn Discover the features of React 16 to get the maximum out of this library Gain the basics of Mon-

goDB, Express, and Node to build a web app. Work with other libraries complementary to React, including React-Bootstrap, React Router, and GraphQL. Use tools such as Babel and Webpack required to build JavaScript-based SPAs. Tie all the components together to build a complete web app. Who This Book Is For: Developers and architects who have prior experience in any web app stack other than the MERN stack will find the book useful to learn about this modern stack. Prior knowledge of JavaScript, HTML, and CSS is required.

R for Cloud Computing looks at some of the tasks performed by business analysts on the desktop (PC era) and helps the user navigate the wealth of information in R and its 4000 packages as well as transition the same analytics using the cloud. With this information the reader can select both cloud vendors and the sometimes confusing cloud ecosystem as well as the R packages that can help process the analytical tasks with minimum effort, cost and maximum usefulness and customization. The use of Graphical User Interfaces (GUI) and Step by Step screenshot tutorials is emphasized in this book to lessen the famous learning curve in learning R and some of the needless confusion created in cloud computing that hinders its widespread adoption. This will help you kick-start analytics on the cloud including chapters on both cloud computing, R, common tasks performed in analytics including the current focus and scrutiny of Big Data Analytics, setting up and navigating cloud providers. Readers are exposed to a breadth of cloud computing choices and analytics topics without being buried in needless depth. The included references and links allow the reader to pursue business analytics on the cloud easily. It is aimed at practical analytics and

is easy to transition from existing analytical set up to the cloud on an open source system based primarily on R. This book is aimed at industry practitioners with basic programming skills and students who want to enter analytics as a profession. Note the scope of the book is neither statistical theory nor graduate level research for statistics, but rather it is for business analytics practitioners. It will also help researchers and academics but at a practical rather than conceptual level. The R statistical software is the fastest growing analytics platform in the world, and is established in both academia and corporations for robustness, reliability and accuracy. The cloud computing paradigm is firmly established as the next generation of computing from microprocessors to desktop PCs to cloud.

Learn how to build dynamic web applications with Express, a key component of the Node/JavaScript development stack. In this hands-on guide, author Ethan Brown teaches you the fundamentals through the development of a fictional application that exposes a public website and a RESTful API. You'll also learn web architecture best practices to help you build single-page, multi-page, and hybrid web apps with Express. Express strikes a balance between a robust framework and no framework at all, allowing you a free hand in your architecture choices. With this book, frontend and backend engineers familiar with JavaScript will discover new ways of looking at web development. Create webpage templating system for rendering dynamic data. Dive into request and response objects, middleware, and URL routing. Simulate a production environment for testing and development. Focus on persistence with document databases, particularly MongoDB. Make your resources available to other

programs with RESTful APIs Build secure apps with authentication, authorization, and HTTPS Integrate with social media, geolocation, and other third-party services Implement a plan for launching and maintaining your app Learn critical debugging skills This book covers Express 4.0.

Become a Node.js craftsman. About This Book This book will help readers to dive deeper into software development with Node.js and JavaScript Takes a craftsman approach to Node.js and object-orientation and test-driven development Crafts many of the small details of Node.js and through to fully-fledged web applications with REST Who This Book Is For This book is written to help you if you're working with Node.js already, but you want to move your craft to the next level with Node.js, so some working knowledge of Node.js is of course already assumed, so that we can look at the work of crafting applications with Node. What You Will Learn How to connect to databases like MongoDB and MySQL from your Node.js application How to unit tests and end-to-end tests for your code When and how to leverage migrations for setting up a continuous deployment workflow Detailed insight into how the Node Package Manager, NPM works How object-orientation actually works in JavaScript Ways to keep your code fast and efficient using asynchronous and non-blocking operations How to use and create event emitters How to use REST frameworks to write full-fledged web applications How to integrate Node.js with Angular In Detail The Node Craftsman Book helps JavaScript programmers with basic Node.js knowledge to now thoroughly master Node.js and JavaScript. This book dives you deeper into the craft of software development with Node.js and JavaScript, including ob-

ject-orientation, test-driven development, database handling, web frameworks, and much more. The Node Craftsman Book shows you how to work with Node.js and how to think deeply about how you build your Node projects. You'll master how to build a complete Node.js application across six crafting milestones, and you'll learn many specific skills to achieve that mastery. These skills include how to work with the Node Package Manager in depth, how to connect your Node applications to databases, and how to write unit tests and end-to-end tests for your code. You'll experience the full Node.js development picture, and learn how to craft and control your Node.js applications - right through to fully-fledged web applications using REST, and integration with Angular applications. Style and approach This book builds on your early knowledge and experience of Node.js and takes a craftsman approach to understanding the whole picture more deeply and shaping your Node applications to perform the way a craftsman would want. So, we take a thoughtful and broad thinking and coding approach to work with Node.js in this book.

Finding the power of MEAN (MongoDB, Express, Angular, and Node) stack to build modern web application. This book helps you how to develop web application based MEAN stack with hands-on-lab approach. The book volume 1 explores how to get started with MEAN stack with several code samples. The following is highlight topics in this book: * Preparing Development Environment * Basic Routing * Input and Form Handling * Data Binding and Templates * MongoDB Data Modeling * Express Routes and Middleware * Cookie and Session * Error handling * Building RESTful Application * Data paging

Learn how to deploy and monitor databases in the cloud, manipulate documents, visualize data, and build applications running on MongoDB using Node.js

Key Features Learn the fundamentals of NoSQL databases with MongoDB Create, manage, and optimize a MongoDB database in the cloud using Atlas Use a real-world dataset to gain practical experience of handling big data

Book Description MongoDB is one of the most popular database technologies for handling large collections of data. This book will help MongoDB beginners develop the knowledge and skills to create databases and process data efficiently. Unlike other MongoDB books, *MongoDB Fundamentals* dives into cloud computing from the very start – showing you how to get started with Atlas in the first chapter. You will discover how to modify existing data, add new data into a database, and handle complex queries by creating aggregation pipelines. As you progress, you'll learn about the MongoDB replication architecture and configure a simple cluster. You will also get to grips with user authentication, as well as techniques for backing up and restoring data. Finally, you'll perform data visualization using *MongoDB Charts*. You will work on realistic projects that are presented as bite-size exercises and activities, allowing you to challenge yourself in an enjoyable and attainable way. Many of these mini-projects are based around a movie database case study, while the last chapter acts as a final project where you will use MongoDB to solve a real-world problem based on a bike-sharing app. By the end of this book, you'll have the skills and confidence to process large volumes of data and tackle your own projects using MongoDB. What you will learn

- Set up and use MongoDB Atlas on the cloud
- Insert, update, delete, and re-

- trieve data from MongoDB
- Build aggregation pipelines to perform complex queries
- Optimize queries using indexes
- Monitor databases and manage user authorization
- Improve scalability and performance with sharding clusters
- Replicate clusters, back up your database, and restore data
- Create data-driven charts and reports from real-time data

Who this book is for This book is designed for people who are new to MongoDB. It is suitable for developers, database administrators, system administrators, and cloud architects who are looking to use MongoDB for smooth data processing in the cloud. Although not necessary, basic knowledge of a general programming language and experience with other databases will help you grasp the topics covered more easily.

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

Get to grips with a new technology, understand what it is and what it can do for you, and then get to work with the most important features and tasks. MongoDB Starter is a fast and practical guide designed to help you start developing high-performance and scalable applications using MongoDB. MongoDB Starter is ideal for developers who are new to MongoDB and who need a no-nonsense guide on how to start working with it. No knowl-

edge of MongoDB is required to follow this book, but some knowledge of C++ would be helpful.

This open access book is part of the LAMBDA Project (Learning, Applying, Multiplying Big Data Analytics), funded by the European Union, GA No. 809965. Data Analytics involves applying algorithmic processes to derive insights. Nowadays it is used in many industries to allow organizations and companies to make better decisions as well as to verify or disprove existing theories or models. The term data analytics is often used interchangeably with intelligence, statistics, reasoning, data mining, knowledge discovery, and others. The goal of this book is to introduce some of the definitions, methods, tools, frameworks, and solutions for big data processing, starting from the process of information extraction and knowledge representation, via knowledge processing and analytics to visualization, sense-making, and practical applications. Each chapter in this book addresses some pertinent aspect of the data processing chain, with a specific focus on understanding Enterprise Knowledge Graphs, Semantic Big Data Architectures, and Smart Data Analytics solutions. This book is addressed to graduate students from technical disciplines, to professional audiences following continuous education short courses, and to researchers from diverse areas following self-study courses. Basic skills in computer science, mathematics, and statistics are required.

This book is an updated and improved project-based guide to help you extend the capabilities of React into building full-stack projects by exploring the industry-tested MERN stack. Starting from the set up for your full-stack apps, you will learn to create the front end, back end,

and everything in between by building fun and engaging projects.

Perform fast interactive analytics against different data sources using the Presto high-performance, distributed SQL query engine. With this practical guide, you'll learn how to conduct analytics on data where it lives, whether it's Hive, Cassandra, a relational database, or a proprietary data store. Analysts, software engineers, and production engineers will learn how to manage, use, and even develop with Presto. Initially developed by Facebook, open source Presto is now used by Netflix, Airbnb, LinkedIn, Twitter, Uber, and many other companies. Matt Fuller, Manfred Moser, and Martin Traverso show you how a single Presto query can combine data from multiple sources to allow for analytics across your entire organization. Get started: Explore Presto's use cases and learn about tools that will help you connect to Presto and query data Go deeper: Learn Presto's internal workings, including how to connect to and query data sources with support for SQL statements, operators, functions, and more Put Presto in production: Secure Presto, monitor workloads, tune queries, and connect more applications; learn how other organizations apply Presto

Node.js, MongoDB and Angular Web Development The definitive guide to using the MEAN stack to build web applications Node.js is a leading server-side programming environment, MongoDB is the most popular NoSQL database, and Angular is the leading framework for MVC-based front-end development. Together, they provide an easy-to-implement, fully integrated web development stack that allows web programmers to create high-performance sites and applications built completely in JavaScript, from server to

client. Updated for Angular 2, Angular 4, and subsequent versions, this new edition of Node.js, MongoDB and Angular Web Development shows you how to integrate these three technologies into complete working solutions. It begins with concise, crystal-clear tutorials on each technology and then quickly moves on to building common web applications. You'll learn how to use Node.js and MongoDB to build more scalable, high-performance sites, how to leverage Angular's innovative MVC approach to structure more effective pages and applications, and how to use all three together to deliver outstanding next-generation Web solutions. Implement a highly scalable and dynamic web server using Node.js and Express Implement a MongoDB data store for your web applications Access and interact with MongoDB from Node.js JavaScript code Learn the basics of TypeScript Define custom Angular directives that extend the HTML language Build server-side web services in JavaScript Implement client-side services that can interact with the Node.js web server Build dynamic browser views that provide rich user interaction Add authenticated user accounts and nested comment components to your web applications and pages Contents at a Glance Part I: Getting Started 1 Introducing the Node.js--to-Angular Stack 2 JavaScript Primer Part II: Learning Node.js 3 Getting Started with Node.js 4 Using Events, Listeners, Timers, and Callbacks in Node.js 5 Handling Data I/O in Node.js 6 Accessing the File System from Node.js 7 Implementing HTTP Services in Node.js 8 Implementing Socket Services in Node.js 9 Scaling Applications Using Multiple Processors in Node.js 10 Using Additional Node.js Modules Part III: Learning MongoDB 11 Understanding NoSQL and MongoDB 12 Getting Started with MongoDB 13 Getting

Started with MongoDB and Node.js 14
 Manipulating MongoDB Documents from Node.js 15
 Accessing MongoDB from Node.js 16
 Using Mongoose for Structured Schema and Validation 17
 Advanced MongoDB Concepts Part IV: Using Express to Make Life Easier 18
 Implementing Express in Node.js 19
 Implementing Express Middleware Part V: Learning Angular 20
 Jumping into TypeScript 21
 Getting Started with Angular 22
 Angular Components 23
 Expressions 24
 Data Binding 25
 Built-in Directives Part VI: Advanced Angular 26
 Custom Directives 27
 Events and Change Detection 28
 Implementing Angular Services in Web Applications 29
 Creating Your Own Custom Angular Services 30
 Having Fun with Angular

This is a hands-on book which introduces you to agile JavaScript web and mobile software development using the latest cutting-edge front-end and back-end technologies including: Node.js, MongoDB, Backbone.js, Parse.com, Heroku and Windows Azure. Practical examples include building multiple versions of the Chat app: •jQuery + Parse.com JS REST API •Backbone and Parse.com JS SDK •Backbone and Node.js •Backbone and Node.js + MongoDB The Chat application has all the foundation of a typical web/mobile application: fetching data, displaying it, submitting new data. Other examples in the book are as follows: •jQuery + Twitter RESP API “Tweet Analyzer” •Parse.com “Save John” •MongoDB “Print Collections” •Backbone.js “Apple Database” •Monk + Express.js “REST API Server” This book will save you many hours by providing a hand-picked and tested collection of quick start guides. RPJS has practical examples that allow to spend less time learning and more time building your own applications. Proto-

type fast and ship code that matters! What You will Learn: You should expect a basic understanding from a collection of quick start guides, tutorials and suggestions for the development apps discussed in this book. In addition to coding examples, the book covers virtually all setup and deployment step-by-step. You’ll learn from the examples of Chat web/mobile applications starting with front-end components and by the end we’ll put front-end and back-end together and deploy to the production environment. Who This Book is For: The typical programmer who wants to learn more about effective JavaScript coding.

Microsoft Azure Essentials from Microsoft Press is a series of free ebooks designed to help you advance your technical skills with Microsoft Azure. The first ebook in the series, Microsoft Azure Essentials: Fundamentals of Azure, introduces developers and IT professionals to the wide range of capabilities in Azure. The authors - both Microsoft MVPs in Azure - present both conceptual and how-to content for key areas, including: Azure Websites and Azure Cloud Services Azure Virtual Machines Azure Storage Azure Virtual Networks Databases Azure Active Directory Management tools Business scenarios Watch Microsoft Press’s blog and Twitter (@MicrosoftPress) to learn about other free ebooks in the “Microsoft Azure Essentials” series.

Pro Git (Second Edition) is your fully-updated guide to Git and its usage in the modern world. Git has come a long way since it was first developed by Linus Torvalds for Linux kernel development. It has taken the open source world by storm since its inception in 2005, and this book teaches you how to use it like a pro. Effective and well-implemented version control is a necessity for successful web projects, whether large or small.

With this book you'll learn how to master the world of distributed version workflow, use the distributed features of Git to the full, and extend Git to meet your every need. Written by Git pros Scott Chacon and Ben Straub, *Pro Git* (Second Edition) builds on the hugely successful first edition, and is now fully updated for Git version 2.0, as well as including an indispensable chapter on GitHub. It's the best book for all your Git needs.

Every enterprise application creates data, whether it's log messages, metrics, user activity, outgoing messages, or something else. And how to move all of this data becomes nearly as important as the data itself. If you're an application architect, developer, or production engineer new to Apache Kafka, this practical guide shows you how to use this open source streaming platform to handle real-time data feeds. Engineers from Confluent and LinkedIn who are responsible for developing Kafka explain how to deploy production Kafka clusters, write reliable event-driven microservices, and build scalable stream-processing applications with this platform. Through detailed examples, you'll learn Kafka's design principles, reliability guarantees, key APIs, and architecture details, including the replication protocol, the controller, and the storage layer. Understand publish-subscribe messaging and how it fits in the big data ecosystem. Explore Kafka producers and consumers for writing and reading messages Understand Kafka patterns and use-case requirements to ensure reliable data delivery Get best practices for building data pipelines and applications with Kafka Manage Kafka in production, and learn to perform monitoring, tuning, and maintenance tasks Learn the most critical metrics among Kafka's operational measure-

ments Explore how Kafka's stream delivery capabilities make it a perfect source for stream processing systems

Learn the main features of Azure Cosmos DB and how to use Microsoft's multi-model database service as a data store for mission-critical applications. The clear examples help in writing your own applications to take advantage of Cosmos DB's multi-model, globally distributed, elastic database. Simple step-by-step instructions show how to resolve common and uncommon scenarios involving Azure Cosmos DB, and scenarios such as delivering extremely low response times (in the order of milliseconds), and scaling rapidly and globally. *Microsoft Azure Cosmos DB Revealed* demonstrates a multitude of possible implementations to get you started. This book guides you toward best practices to get the most out of Microsoft's Cosmos DB service. Later chapters in the book cover advanced implementation features, helping you master important elements such as securing the database, querying, and using various APIs. **What You'll Learn** Set up a development environment to work with Azure Cosmos DB Configure Azure Cosmos DB in a production environment with multi-region distribution Query using all APIs, including SQL, JavaScript, MongoDB, and Graph Work with the Azure Cosmos DB.NET SDK in an application you built Access Cosmos DB from web applications created in .NET **Who This Book Is For** Developers who build applications to be hosted in Microsoft Azure, whether they use PaaS or IaaS. No previous knowledge of Azure Cosmos DB is assumed, but readers must be familiar with developing applications in Microsoft Visual Studio.

Summary *Introducing Data Science* teaches you how to accomplish the fun-

damental tasks that occupy data scientists. Using the Python language and common Python libraries, you'll experience firsthand the challenges of dealing with data at scale and gain a solid foundation in data science. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Many companies need developers with data science skills to work on projects ranging from social media marketing to machine learning. Discovering what you need to learn to begin a career as a data scientist can seem bewildering. This book is designed to help you get started. About the Book *Introducing Data Science* *Introducing Data Science* explains vital data science concepts and teaches you how to accomplish the fundamental tasks that occupy data scientists. You'll explore data visualization, graph databases, the use of NoSQL, and the data science process. You'll use the Python language and common Python libraries as you experience firsthand the challenges of dealing with data at scale. Discover how Python allows you to gain insights from data sets so big that they need to be stored on multiple machines, or from data moving so quickly that no single machine can handle it. This book gives you hands-on experience with the most popular Python data science libraries, Scikit-learn and StatsModels. After reading this book, you'll have the solid foundation you need to start a career in data science. What's Inside *Handling large data* *Introduction to machine learning* *Using Python to work with data* *Writing data science algorithms* About the Reader This book assumes you're comfortable reading code in Python or a similar language, such as C, Ruby, or JavaScript. No prior experience with data science is required. About the Authors Davy Cielen,

Arno D. B. Meysman, and Mohamed Ali are the founders and managing partners of Optimately and Maiton, where they focus on developing data science projects and solutions in various sectors. Table of Contents *Data science in a big data world* *The data science process* *Machine learning* *Handling large data on a single computer* *First steps in big data* *Join the NoSQL movement* *The rise of graph databases* *Text mining and text analytics* *Data visualization to the end user* The "one-size-fits-all" thinking regarding traditional RDBMSs has been challenged in the last few years by the emergence of diversified NoSQL databases. More than 120 NoSQL databases are now available in the market, and the market leader by far is MongoDB. With so many companies opting for MongoDB as their NoSQL database of choice, there's a need for a practical how-to combined with expert advice for getting the most out of the software. Beginning with a short introduction to the basics of NoSQL databases, MongoDB experts Navin Sabharwal and Shankata Gupta introduce readers to MongoDB - the leading document based NoSQL database, acquainting them step by step with all aspects of MongoDB. They cover the data model, underlying architecture, how to code using Mongo Shell, and administration of the MongoDB platform, among other topics. The book also provides clear guidelines and practical examples for architecting and developing applications using the MongoDB platform and deploying them. Database developers, architects, and database administrators will find useful information covering all aspects of the MongoDB platform and how to put it to use practically. *Practical Guide to MongoDB* provides readers with: A solid understanding of NoSQL databases An understanding of how to

get started with MongoDB Methodical coverage of the architecture, development, and administration of MongoDB A plethora of "How to's" enabling you to use the technology most efficiently to solve the problems you face Practical MongoDB is for those just starting to learning to work with NoSQL databases in general and MongoDB in particular. Skills in these areas are in demand, making this book essential reading for those who want to work more productively or break into big data work. It will prove equally useful for entrepreneurs and others who like to work with new technologies.

This book is designed to introduce you to using containers and Kubernetes for full-stack development. You'll learn how to develop a full-stack application using Node.js and MongoDB and how to and manage them using Docker, then Docker Compose, and finally Kubernetes.

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.

Design, administer, and deploy high-volume and fault-tolerant database applications using MongoDB 4.x Key Features- Build a powerful and scalable MongoDB

database using real industry data Understand the process of designing NoSQL schema with the latest release of MongoDB 4.x Explore the ins and outs of MongoDB, including queries, replication, sharding, and vital admin tasks Book Description When it comes to managing a high volume of unstructured and non-relational datasets, MongoDB is the de facto database management system (DBMS) for DBAs and data architects. This updated book includes the latest release and covers every feature in MongoDB 4.x, while helping you get hands-on with building a MongoDB database app. You'll get to grips with MongoDB 4.x concepts such as indexes, database design, data modeling, authentication, and aggregation. As you progress, you'll cover tasks such as performing routine operations when developing a dynamic database-driven website. Using examples, you'll learn how to work with queries and regular database operations. The book will not only guide you through design and implementation, but also help you monitor operations to achieve optimal performance and secure your MongoDB database systems. You'll also be introduced to advanced techniques such as aggregation, map-reduce, complex queries, and generating ad hoc financial reports on the fly. Later, the book shows you how to work with multiple collections as well as embedded arrays and documents, before finally exploring key topics such as replication, sharding, and security using practical examples. By the end of this book, you'll be well-versed with MongoDB 4.x and be able to perform development and administrative tasks associated with this NoSQL database. What you will learn Understand how to configure and install MongoDB 4.x Build a database-driven website using MongoDB as the backend Perform basic

database operations and handle complex MongoDB queries. Develop a successful MongoDB database design for large corporate customers with complex requirements. Secure MongoDB database systems by establishing role-based access control with X.509 transport-level security. Optimize reads and writes directed to a replica set or sharded cluster. Perform essential MongoDB administration tasks. Maintain database performance through monitoring. Who this book is for: This book is a MongoDB tutorial for DevOps engineers, database developers, database administrators, system administrators and those who are just getting started with NoSQL and looking to build document-oriented databases and gain real-world experience in managing databases using MongoDB. Basic knowledge of databases and Python is required to get started with this DBMS 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 ES-2015-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. With modern tools, it is possible to create a production grade, full-stack application using HTML, CSS, and JavaScript alone. The combination of MongoDB, Express, AngularJS, and Node.js has become so popular that it has earned the ti-

the MEAN stack -- the subject of this book. This book explores the MEAN stack in detail. We will begin by covering Node.js, as it will lay the groundwork for all of our server-side work. You will learn how to get Node running on your local machine as well as download modules using npm. The key aspects of the Node.js programming model will also be covered. From there, we will move on to MongoDB, where you'll learn how to interact with Mongo from a Node application. You will also learn how to create, retrieve, update, and delete data from a Mongo store. After you have a solid grasp on Node and Mongo, the book will move on to the Express web server. We'll cover the basics of Express applications via topics like routes and middleware. Building on previous chapters, we will cover the integration of Node, Mongo, and Express. Our coverage of the MEAN stack will wrap up with several chapters on AngularJS. These chapters will cover Angular fundamentals like data binding, directives, controllers, routing, and services. In an effort to explore competing technologies, a slight introduction to Ember.js will also be provided. Full stack JavaScript is not fully encompassed by the MEAN stack. There is an entire ecosystem of JavaScript tools to learn about, and this book will introduce a few of them. We will cover task runners Gulp.js and Grunt.js which are extremely useful for automating mundane, repetitive tasks. We'll also cover JSHint, a linting tool used to improve code quality. Linting tools analyze source code and report potential issues - a feature that is especially useful in non-compiled languages like JavaScript.

This book highlights practical sysadmin skills, common architectures that you'll encounter, and best practices that apply

to automating and running systems at any scale, from one laptop or server to 1,000 or more. It is intended to help orient you within the discipline, and hopefully encourages you to learn more about system administration.

Take your distributed applications to the next level and see what the reference architectures associated with microservices can do for you. This book begins by showing you the distributed computing architecture landscape and provides an in-depth view of microservices architecture. Following this, you will work with CQRS, an essential pattern for microservices, and get a view of how distributed messaging works. Moving on, you will take a deep dive into Spring Boot and Spring Cloud. Coming back to CQRS, you will learn how event-driven microservices work with this pattern, using the Axon 2 framework. This takes you on to how transactions work with microservices followed by advanced architectures to address non-functional aspects such as high availability and scalability. In the concluding part of the book you develop your own enterprise-grade microservices application using the Axon framework and true BASE transactions, while making it as secure as possible. What You Will Learn Shift from monolith architecture to microservices Work with distributed and ACID transactions Build solid architectures without two-phase commit transactions Discover the high availability principles in microservices Who This Book Is For Java developers with basic knowledge of distributed and multi-threaded application architecture, and no knowledge of Spring Boot or Spring Cloud. Knowledge of CQRS and event-driven architecture is not mandatory as this book will cover these in depth.

A hands-on guide to leveraging NoSQL databases NoSQL databases are an effi-

cient and powerful tool for storing and manipulating vast quantities of data. Most NoSQL databases scale well as data grows. In addition, they are often malleable and flexible enough to accommodate semi-structured and sparse data sets. This comprehensive hands-on guide presents fundamental concepts and practical solutions for getting you ready to use NoSQL databases. Expert author Shashank Tiwari begins with a helpful introduction on the subject of NoSQL, explains its characteristics and typical uses, and looks at where it fits in the application stack. Unique insights help you choose which NoSQL solutions are best for solving your specific data storage needs. Professional NoSQL: De-

mystifies the concepts that relate to NoSQL databases, including column-family oriented stores, key/value databases, and document databases. Delves into installing and configuring a number of NoSQL products and the Hadoop family of products. Explains ways of storing, accessing, and querying data in NoSQL databases through examples that use MongoDB, HBase, Cassandra, Redis, CouchDB, Google App Engine Datastore and more. Looks at architecture and internals. Provides guidelines for optimal usage, performance tuning, and scalable configurations. Presents a number of tools and utilities relating to NoSQL, distributed platforms, and scalable processing, including Hive, Pig, RRDtool, Nagios, and more.