Apache Hive Essentials

Eventually, you will totally discover a new experience and deed by spending more cash. nevertheless when? do you understand that you require to get those every needs subsequent to having significantly cash? Why dont you attempt to get something basic in the beginning? Thats something that will lead you to understand even more a propos the globe, experience, some places, bearing in mind history, amusement, and a lot more?

It is your extremely own mature to accomplishment reviewing habit. along with guides you could enjoy now is **Apache Hive Essentials** below.

Apache Hive Essentials - Dayong Du 2018-06-29 This book takes you on a fantastic journey to discover the attributes of big data using Apache Hive. Key Features Grasp the skills needed to write efficient Hive queries to analyze the Big Data Discover how Hive can coexist and work with other tools within the Hadoop ecosystem Uses practical, example-oriented scenarios to cover all the newly released features of Apache Hive 2.3.3 Book Description In this book, we prepare you for your journey into big data by frstly introducing you to backgrounds in the big data domain, alongwith the process of setting up and getting familiar with your Hive working environment. Next, the book guides you through discovering and transforming the values of big data with the help of examples. It also hones your skills in using the Hive language in an effcient manner. Toward the end, the book focuses on advanced topics, such as performance, security, and extensions in Hive, which will guide you on exciting adventures on this worthwhile big data journey. By the end of the book, you will be familiar with Hive and able to work effeciently to find solutions to big data problems What you will learn Create and set up the Hive environment Discover how to use Hive's definition language to describe data Discover interesting data by joining and filtering datasets in Hive Transform data by using Hive sorting, ordering, and functions Aggregate and sample data in different ways Boost Hive query performance and enhance data security in Hive Customize Hive to your needs by using user-defined functions and integrate it with other tools Who this book is for If you are a data analyst, developer, or simply someone who wants to quickly get started with Hive to explore and analyze Big Data in Hadoop, this is the book for you. Since Hive is an SQL-like language, some previous experience with SQL will be useful to get the most out of this book.

Trino: The Definitive Guide - Matt Fuller 2021-04-14
Perform fast interactive analytics against different data sources using the Trino 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 Trino. Initially developed by Facebook, open source Trino 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 Trino query can combine data from multiple sources to allow for analytics across your entire organization. Get started: Explore Trino's use cases and learn about tools that will help you connect to Trino and query data Go deeper: Learn Trino's internal workings, including how to connect to and query data sources with support for SQL statements, operators, functions, and more Put Trino in production: Secure Trino, monitor workloads, tune queries, and connect more applications; learn how other organizations apply Trino

Hadoop: The Definitive Guide - Tom White 2015-03-25
Get ready to unlock the power of your data. With the fourth edition of this comprehensive guide,

you'll learn how to build and maintain reliable, scalable, distributed systems with Apache Hadoop. This book is ideal for programmers looking to analyze datasets of any size, and for administrators who want to set up and run Hadoop clusters. Using Hadoop 2 exclusively, author Tom White presents new chapters on YARN and several Hadoop-related projects such as Parquet, Flume, Crunch, and Spark. You'll learn about recent changes to Hadoop, and explore new case studies on Hadoop's role in healthcare systems and genomics data processing. Learn fundamental components such as MapReduce, HDFS, and YARN Explore MapReduce in depth, including steps for developing applications with it Set up and maintain a Hadoop cluster running HDFS and MapReduce on YARN Learn two data formats: Avro for data serialization and Parquet for nested data Use data ingestion tools such as Flume (for streaming data) and Sqoop (for bulk data transfer) Understand how high-level data processing tools like Pig, Hive, Crunch, and Spark work with Hadoop Learn the HBase distributed database and the ZooKeeper distributed configuration service

Apache Sqoop Cookbook - Kathleen Ting 2013-07-02
Integrating data from multiple sources is essential in the age of big data, but it can be a challenging and time-consuming task. This handy cookbook provides dozens of ready-to-use recipes for using Apache Sqoop, the command-line interface application that optimizes data transfers between relational databases and Hadoop. Sqoop is both powerful and bewildering, but with this cookbook's problem-solution-discussion format, you'll quickly learn how to deploy and then apply Sqoop in your environment. The authors provide MySQL, Oracle, and PostgreSQL database examples on GitHub that you can easily adapt for SQL Server, Netezza, Teradata, or other relational systems. Transfer data from a single database table into your Hadoop ecosystem Keep table data and Hadoop in sync by importing data incrementally Import data from more than one database table Customize transferred data by calling various database functions Export generated, processed, or backed-up data from Hadoop to your database Run Sqoop within Oozie, Hadoop's specialized

workflow scheduler Load data into Hadoop's data warehouse (Hive) or database (HBase) Handle installation, connection, and syntax issues common to specific database vendors

Beginning Apache Cassandra Development - Vivek Mishra 2014-12-12
Beginning Apache Cassandra Development introduces you to one of the most robust and best-performing NoSQL database platforms on the planet. Apache Cassandra is a document database following the JSON document model. It is specifically designed to manage large amounts of data across many commodity servers without there being any single point of failure. This design approach makes Apache Cassandra a robust and easy-to-implement platform when high availability is needed. Apache Cassandra can be used by developers in Java, PHP, Python, and JavaScript—the primary and most commonly used languages. In Beginning Apache Cassandra Development, author and Cassandra expert Vivek Mishra takes you through using Apache Cassandra from each of these primary languages. Mishra also covers the Cassandra Query Language (CQL), the Apache Cassandra analog to SQL. You'll learn to develop applications sourcing data from Cassandra, query that data, and deliver it at speed to your application's users. Cassandra is one of the leading NoSQL databases, meaning you get unparalleled throughput and performance without the sort of processing overhead that comes with traditional proprietary databases. Beginning Apache Cassandra Development will therefore help you create applications that generate search results quickly, stand up to high levels of demand, scale as your user base grows, ensure operational simplicity, and—not least—provide delightful user experiences.

Modern Big Data Processing with Hadoop - V Naresh Kumar 2018-03-30
A comprehensive guide to design, build and execute effective Big Data strategies using Hadoop Key Features -Get an in-depth view of the Apache Hadoop ecosystem and an overview of the architectural patterns pertaining to the popular Big Data platform -Conquer different data processing and analytics challenges using a multitude of tools such as Apache Spark, Elasticsearch, Tableau and more -A comprehensive, step-by-step guide that will

teach you everything you need to know, to be an expert Hadoop Architect Book Description The complex structure of data these days requires sophisticated solutions for data transformation, to make the information more accessible to the users.This book empowers you to build such solutions with relative ease with the help of Apache Hadoop, along with a host of other Big Data tools. This book will give you a complete understanding of the data lifecycle management with Hadoop, followed by modeling of structured and unstructured data in Hadoop. It will also show you how to design real-time streaming pipelines by leveraging tools such as Apache Spark, and build efficient enterprise search solutions using Elasticsearch. You will learn to build enterprise-grade analytics solutions on Hadoop, and how to visualize your data using tools such as Apache Superset. This book also covers techniques for deploying your Big Data solutions on the cloud Apache Ambari, as well as expert techniques for managing and administering your Hadoop cluster. By the end of this book, you will have all the knowledge you need to build expert Big Data systems. What you will learn Build an efficient enterprise Big Data strategy centered around Apache Hadoop Gain a thorough understanding of using Hadoop with various Big Data frameworks such as Apache Spark, Elasticsearch and more Set up and deploy your Big Data environment on premises or on the cloud with Apache Ambari Design effective streaming data pipelines and build your own enterprise search solutions Utilize the historical data to build your analytics solutions and visualize them using popular tools such as Apache Superset Plan, set up and administer your Hadoop cluster efficiently Who this book is for This book is for Big Data professionals who want to fast-track their career in the Hadoop industry and become an expert Big Data architect. Project managers and mainframe professionals looking forward to build a career in Big Data Hadoop will also find this book to be useful. Some understanding of Hadoop is required to get the best out of this book.
Essentials of Business Analytics - Bhimasankaram Pochiraju 2019-07-10 This comprehensive edited volume is the first of its kind, designed to serve as a textbook for long-duration business analytics programs. It can also

be used as a guide to the field by practitioners. The book has contributions from experts in top universities and industry. The editors have taken extreme care to ensure continuity across the chapters. The material is organized into three parts: A) Tools, B) Models and C) Applications. In Part A, the tools used by business analysts are described in detail. In Part B, these tools are applied to construct models used to solve business problems. Part C contains detailed applications in various functional areas of business and several case studies. Supporting material can be found in the appendices that develop the pre-requisites for the main text. Every chapter has a business orientation. Typically, each chapter begins with the description of business problems that are transformed into data questions; and methodology is developed to solve these questions. Data analysis is conducted using widely used software, the output and results are clearly explained at each stage of development. These are finally transformed into a business solution. The companion website provides examples, data sets and sample code for each chapter.

Apache Hadoop YARN - Arun C. Murthy 2014 "Apache Hadoop is helping drive the Big Data revolution. Now, its data processing has been completely overhauled: Apache Hadoop YARN provides resource management at data center scale and easier ways to create distributed applications that process petabytes of data. And now in Apache HadoopTM YARN, two Hadoop technical leaders show you how to develop new applications and adapt existing code to fully leverage these revolutionary advances." -- From the Amazon
Apache Hive Cookbook - Hanish Bansal 2016-04-29
Easy, hands-on recipes to help you understand Hive and its integration with frameworks that are used widely in today's big data world About This Book Grasp a complete reference of different Hive topics. Get to know the latest recipes in development in Hive including CRUD operations Understand Hive internals and integration of Hive with different frameworks used in today's world. Who This Book Is For The book is intended for those who want to start in Hive or who have basic understanding of Hive

framework. Prior knowledge of basic SQL command is also required What You Will Learn Learn different features and offering on the latest Hive Understand the working and structure of the Hive internals Get an insight on the latest development in Hive framework Grasp the concepts of Hive Data Model Master the key concepts like Partition, Buckets and Statistics Know how to integrate Hive with other frameworks such as Spark, Accumulo, etc In Detail Hive was developed by Facebook and later open sourced in Apache community. Hive provides SQL like interface to run queries on Big Data frameworks. Hive provides SQL like syntax also called as HiveQL that includes all SQL capabilities like analytical functions which are the need of the hour in today's Big Data world. This book provides you easy installation steps with different types of metastores supported by Hive. This book has simple and easy to learn recipes for configuring Hive clients and services. You would also learn different Hive optimizations including Partitions and Bucketing. The book also covers the source code explanation of latest Hive version. Hive Query Language is being used by other frameworks including spark. Towards the end you will cover integration of Hive with these frameworks. Style and approach Starting with the basics and covering the core concepts with the practical usage, this book is a complete guide to learn and explore Hive offerings.

Microsoft Azure Essentials - Fundamentals of Azure - Michael Collier 2015-01-29 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.

Data Science and Big Data Analytics - EMC Education Services 2015-01-05 Data Science and Big Data Analytics is about harnessing the power of data for new insights. The book covers the breadth of activities and methods and tools that Data Scientists use. The content focuses on concepts, principles and practical applications that are applicable to any industry and technology environment, and the learning is supported and explained with examples that you can replicate using open-source software. This book will help you: Become a contributor on a data science team Deploy a structured lifecycle approach to data analytics problems Apply appropriate analytic techniques and tools to analyzing big data Learn how to tell a compelling story with data to drive business action Prepare for EMC Proven Professional Data Science Certification Corresponding data sets are available from the book's page at Wiley which you can find on the Wiley site by searching for the ISBN 9781118876138. Get started discovering, analyzing, visualizing, and presenting data in a meaningful way today!

AWS Certified Data Analytics Study Guide - Asif Abbasi 2020-11-20 Move your career forward with AWS certification! Prepare for the AWS Certified Data Analytics Specialty Exam with this thorough study guide This comprehensive study guide will help assess your technical skills and prepare for the updated AWS Certified Data Analytics exam. Earning this AWS certification will confirm your expertise in designing and implementing AWS services to derive value from data. The AWS Certified Data Analytics Study Guide: Specialty (DAS-C01) Exam is designed for business analysts and IT professionals who perform complex Big Data analyses. This AWS Specialty Exam guide gets you ready for certification testing with expert content, real-world knowledge, key exam concepts, and topic reviews. Gain confidence by studying the subject areas and working through the practice questions. Big data concepts covered in the guide include: Collection Storage Processing Analysis Visualization Data security AWS certifications allow professionals to demonstrate skills related to leading Amazon Web Services technology. The AWS Certified Data Analytics

Specialty (DAS-C01) Exam specifically evaluates your ability to design and maintain Big Data, leverage tools to automate data analysis, and implement AWS Big Data services according to architectural best practices. An exam study guide can help you feel more prepared about taking an AWS certification test and advancing your professional career. In addition to the guide's content, you'll have access to an online learning environment and test bank that offers practice exams, a glossary, and electronic flashcards.

HBase - Lars George 2011-09-05
"HBase: The Definitive Guide" provides the details for evaluating this high-performance, non-relational database, or putting it into practice right away. HBase's adoption rate is beginning to climb, and IT executives are asking pointed questions about this high-capacity database.

Instant Apache Hive Essentials How-to - Darren Lee 2013
Filled with practical, step-by-step instructions and clear explanations for the most important and useful tasks.This book provides quick recipes for using Hive to read data in various formats, efficiently querying this data, and extending Hive with any custom functions you may need to insert your own logic into the data pipeline.This book is written for data analysts and developers who want to use their current knowledge of SQL to be more productive with Hadoop. It assumes that readers are comfortable writing SQL queries and are familiar with Hadoop at the level of the classic WordCount example.

HBase Essentials - Nishant Garg 2014-11-14
This book is intended for developers and Big Data engineers who want to know all about HBase at a hands-on level. For in-depth understanding, it would be helpful to have a bit of familiarity with HDFS and MapReduce programming concepts with no prior experience with HBase or similar technologies. This book is also for Big Data enthusiasts and database developers who have worked with other NoSQL databases and now want to explore HBase as another futuristic, scalable database solution in the Big Data space.

Apache Oozie - Mohammad Kamrul Islam 2015-05-12

Get a solid grounding in Apache Oozie, the workflow scheduler system for managing Hadoop jobs. With this hands-on guide, two experienced Hadoop practitioners walk you through the intricacies of this powerful and flexible platform, with numerous examples and real-world use cases. Once you set up your Oozie server, you'll dive into techniques for writing and coordinating workflows, and learn how to write complex data pipelines. Advanced topics show you how to handle shared libraries in Oozie, as well as how to implement and manage Oozie's security capabilities. Install and configure an Oozie server, and get an overview of basic concepts Journey through the world of writing and configuring workflows Learn how the Oozie coordinator schedules and executes workflows based on triggers Understand how Oozie manages data dependencies Use Oozie bundles to package several coordinator apps into a data pipeline Learn about security features and shared library management Implement custom extensions and write your own EL functions and actions Debug workflows and manage Oozie's operational details

Practical Hadoop Ecosystem - Deepak Vohra 2016-09-30
Learn how to use the Apache Hadoop projects, including MapReduce, HDFS, Apache Hive, Apache HBase, Apache Kafka, Apache Mahout, and Apache Solr. From setting up the environment to running sample applications each chapter in this book is a practical tutorial on using an Apache Hadoop ecosystem project. While several books on Apache Hadoop are available, most are based on the main projects, MapReduce and HDFS, and none discusses the other Apache Hadoop ecosystem projects and how they all work together as a cohesive big data development platform. What You Will Learn: Set up the environment in Linux for Hadoop projects using Cloudera Hadoop Distribution CDH 5 Run a MapReduce job Store data with Apache Hive, and Apache HBase Index data in HDFS with Apache Solr Develop a Kafka messaging system Stream Logs to HDFS with Apache Flume Transfer data from MySQL database to Hive, HDFS, and HBase with Sqoop Create a Hive table over Apache Solr Develop a Mahout User Recommender System Who This Book Is For: Apache Hadoop developers. Pre-

requisite knowledge of Linux and some knowledge of Hadoop is required.

Programming Hive - Edward Capriolo 2012-09-26
Describes the features and functions of Apache Hive, the data infrastructure for Hadoop.

Feature Engineering for Machine Learning - Alice Zheng 2018-03-23
Feature engineering is a crucial step in the machine-learning pipeline, yet this topic is rarely examined on its own. With this practical book, you'll learn techniques for extracting and transforming features—the numeric representations of raw data—into formats for machine-learning models. Each chapter guides you through a single data problem, such as how to represent text or image data. Together, these examples illustrate the main principles of feature engineering. Rather than simply teach these principles, authors Alice Zheng and Amanda Casari focus on practical application with exercises throughout the book. The closing chapter brings everything together by tackling a real-world, structured dataset with several feature-engineering techniques. Python packages including numpy, Pandas, Scikit-learn, and Matplotlib are used in code examples. You'll examine: Feature engineering for numeric data: filtering, binning, scaling, log transforms, and power transforms Natural text techniques: bag-of-words, n-grams, and phrase detection Frequency-based filtering and feature scaling for eliminating uninformative features Encoding techniques of categorical variables, including feature hashing and bin-counting Model-based feature engineering with principal component analysis The concept of model stacking, using k-means as a featurization technique Image feature extraction with manual and deep-learning techniques

Hadoop: The Definitive Guide - Tom White 2012-05-10
Ready to unlock the power of your data? With this comprehensive guide, you'll learn how to build and maintain reliable, scalable, distributed systems with Apache Hadoop. This book is ideal for programmers looking to analyze datasets of any size, and for administrators who want to set up and run Hadoop clusters. You'll find illuminating case studies that demonstrate how Hadoop is used to solve specific problems. This third edition covers recent changes to Hadoop, including material on the new MapReduce API, as well as MapReduce 2 and its more flexible execution model (YARN). Store large datasets with the Hadoop Distributed File System (HDFS) Run distributed computations with MapReduce Use Hadoop's data and I/O building blocks for compression, data integrity, serialization (including Avro), and persistence Discover common pitfalls and advanced features for writing real-world MapReduce programs Design, build, and administer a dedicated Hadoop cluster—or run Hadoop in the cloud Load data from relational databases into HDFS, using Sqoop Perform large-scale data processing with the Pig query language Analyze datasets with Hive, Hadoop's data warehousing system Take advantage of HBase for structured and semi-structured data, and ZooKeeper for building distributed systems

Hadoop in Practice - Alex Holmes 2014-09-29
Summary Hadoop in Practice, Second Edition provides over 100 tested, instantly useful techniques that will help you conquer big data, using Hadoop. This revised new edition covers changes and new features in the Hadoop core architecture, including MapReduce 2. Brand new chapters cover YARN and integrating Kafka, Impala, and Spark SQL with Hadoop. You'll also get new and updated techniques for Flume, Sqoop, and Mahout, all of which have seen major new versions recently. In short, this is the most practical, up-to-date coverage of Hadoop available anywhere. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Book It's always a good time to upgrade your Hadoop skills! Hadoop in Practice, Second Edition provides a collection of 104 tested, instantly useful techniques for analyzing real-time streams, moving data securely, machine learning, managing large-scale clusters, and taming big data using Hadoop. This completely revised edition covers changes and new features in Hadoop core, including MapReduce 2 and YARN. You'll pick up hands-on best practices for integrating Spark, Kafka, and Impala with Hadoop, and get new and updated techniques for the latest versions of Flume, Sqoop, and Mahout. In short, this is the most practical, up-to-date coverage of Hadoop available. Readers

need to know a programming language like Java and have basic familiarity with Hadoop. What's Inside Thoroughly updated for Hadoop 2 How to write YARN applications Integrate real-time technologies like Storm, Impala, and Spark Predictive analytics using Mahout and RR Readers need to know a programming language like Java and have basic familiarity with Hadoop. About the Author Alex Holmes works on tough big-data problems. He is a software engineer, author, speaker, and blogger specializing in large-scale Hadoop projects. Table of Contents PART 1 BACKGROUND AND FUNDAMENTALS Hadoop in a heartbeat Introduction to YARN PART 2 DATA LOGISTICS Data serialization—working with text and beyond Organizing and optimizing data in HDFS Moving data into and out of Hadoop PART 3 BIG DATA PATTERNS Applying MapReduce patterns to big data Utilizing data structures and algorithms at scale Tuning, debugging, and testing PART 4 BEYOND MAPREDUCE SQL on Hadoop Writing a YARN application

Big Data Made Easy - Michael Frampton
2014-12-31
Many corporations are finding that the size of their data sets are outgrowing the capability of their systems to store and process them. The data is becoming too big to manage and use with traditional tools. The solution: implementing a big data system. As Big Data Made Easy: A Working Guide to the Complete Hadoop Toolset shows, Apache Hadoop offers a scalable, fault-tolerant system for storing and processing data in parallel. It has a very rich toolset that allows for storage (Hadoop), configuration (YARN and ZooKeeper), collection (Nutch and Solr), processing (Storm, Pig, and Map Reduce), scheduling (Oozie), moving (Sqoop and Avro), monitoring (Chukwa, Ambari, and Hue), testing (Big Top), and analysis (Hive). The problem is that the Internet offers IT pros wading into big data many versions of the truth and some outright falsehoods born of ignorance. What is needed is a book just like this one: a wide-ranging but easily understood set of instructions to explain where to get Hadoop tools, what they can do, how to install them, how to configure them, how to integrate them, and how to use them successfully. And you need an expert who has worked in this area for a decade—someone

just like author and big data expert Mike Frampton. Big Data Made Easy approaches the problem of managing massive data sets from a systems perspective, and it explains the roles for each project (like architect and tester, for example) and shows how the Hadoop toolset can be used at each system stage. It explains, in an easily understood manner and through numerous examples, how to use each tool. The book also explains the sliding scale of tools available depending upon data size and when and how to use them. Big Data Made Easy shows developers and architects, as well as testers and project managers, how to: Store big data Configure big data Process big data Schedule processes Move data among SQL and NoSQL systems Monitor data Perform big data analytics Report on big data processes and projects Test big data systems Big Data Made Easy also explains the best part, which is that this toolset is free. Anyone can download it and—with the help of this book—start to use it within a day. With the skills this book will teach you under your belt, you will add value to your company or client immediately, not to mention your career.

Professional NoSQL - Shashank Tiwari
2011-08-31
A hands-on guide to leveraging NoSQL databases NoSQL databases are an efficient 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: Demystifies 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.

Apache Hive Essentials - Dayong Du 2018-06-30 This book takes you on a fantastic journey to discover the attributes of big data using Apache Hive. Key Features Grasp the skills needed to write efficient Hive queries to analyze the Big Data Discover how Hive can coexist and work with other tools within the Hadoop ecosystem Uses practical, example-oriented scenarios to cover all the newly released features of Apache Hive 2.3.3 Book Description In this book, we prepare you for your journey into big data by frstly introducing you to backgrounds in the big data domain, alongwith the process of setting up and getting familiar with your Hive working environment. Next, the book guides you through discovering and transforming the values of big data with the help of examples. It also hones your skills in using the Hive language in an effcient manner. Toward the end, the book focuses on advanced topics, such as performance, security, and extensions in Hive, which will guide you on exciting adventures on this worthwhile big data journey. By the end of the book, you will be familiar with Hive and able to work effeciently to find solutions to big data problems What you will learn Create and set up the Hive environment Discover how to use Hive's definition language to describe data Discover interesting data by joining and filtering datasets in Hive Transform data by using Hive sorting, ordering, and functions Aggregate and sample data in different ways Boost Hive query performance and enhance data security in Hive Customize Hive to your needs by using user-defined functions and integrate it with other tools Who this book is for If you are a data analyst, developer, or simply someone who wants to quickly get started with Hive to explore and analyze Big Data in Hadoop, this is the book for you. Since Hive is an SQL-like language, some previous experience with SQL will be useful to get the most out of this book.

Beginning Apache Pig - Balaswamy Vaddeman 2016-12-10 Learn to use Apache Pig to develop lightweight big data applications easily and quickly. This book shows you many optimization techniques and covers every context where Pig is used in big data analytics. Beginning Apache Pig shows you how Pig is easy to learn and requires relatively little time to develop big data applications.The book is divided into four parts: the complete features of Apache Pig; integration with other tools; how to solve complex business problems; and optimization of tools.You'll discover topics such as MapReduce and why it cannot meet every business need; the features of Pig Latin such as data types for each load, store, joins, groups, and ordering; how Pig workflows can be created; submitting Pig jobs using Hue; and working with Oozie. You'll also see how to extend the framework by writing UDFs and custom load, store, and filter functions. Finally you'll cover different optimization techniques such as gathering statistics about a Pig script, joining strategies, parallelism, and the role of data formats in good performance. What You Will Learn• Use all the features of Apache Pig• Integrate Apache Pig with other tools• Extend Apache Pig• Optimize Pig Latin code• Solve different use cases for Pig LatinWho This Book Is ForAll levels of IT professionals: architects, big data enthusiasts, engineers, developers, and big data administrators

Practical Hive - Scott Shaw 2016-08-27 Dive into the world of SQL on Hadoop and get the most out of your Hive data warehouses. This book is your go-to resource for using Hive: authors Scott Shaw, Ankur Gupta, David Kjerrumgaard, and Andreas Francois Vermeulen take you through learning HiveQL, the SQL-like language specific to Hive, to analyze, export, and massage the data stored across your Hadoop environment. From deploying Hive on your hardware or virtual machine and setting up its initial configuration to learning how Hive interacts with Hadoop, MapReduce, Tez and other big data technologies, Practical Hive gives you a detailed treatment of the software. In addition, this book discusses the value of open source software, Hive performance tuning, and how to leverage semi-structured and unstructured data. What You Will Learn Install

and configure Hive for new and existing datasets Perform DDL operations Execute efficient DML operations Use tables, partitions, buckets, and user-defined functions Discover performance tuning tips and Hive best practices Who This Book Is For Developers, companies, and professionals who deal with large amounts of data and could use software that can efficiently manage large volumes of input. It is assumed that readers have the ability to work with SQL. -

Big Data For Dummies - Judith S. Hurwitz 2013-04-02
Find the right big data solution for your business ororganization Big data management is one of the major challenges facingbusiness, industry, and not-for-profit organizations. Data setssuch as customer transactions for a mega-retailer, weather patternsmonitored by meteorologists, or social network activity can quicklyoutpace the capacity of traditional data management tools. If youneed to develop or manage big data solutions, you'll appreciate howthese four experts define, explain, and guide you through this newand often confusing concept. You'll learn what it is, why itmatters, and how to choose and implement solutions that work. Effectively managing big data is an issue of growing importanceto businesses, not-for-profit organizations, government, and ITprofessionals Authors are experts in information management, big data, and avariety of solutions Explains big data in detail and discusses how to select andimplement a solution, security concerns to consider, data storageand presentation issues, analytics, and much more Provides essential information in a no-nonsense,easy-to-understand style that is empowering Big Data For Dummies cuts through the confusion and helpsyou take charge of big data solutions for your organization.

Hadoop 2 Quick-Start Guide - Douglas Eadline 2015-10-28
Get Started Fast with Apache Hadoop® 2, YARN, and Today's Hadoop Ecosystem With Hadoop 2.x and YARN, Hadoop moves beyond MapReduce to become practical for virtually any type of data processing. Hadoop 2.x and the Data Lake concept represent a radical shift away from conventional approaches to data usage and storage. Hadoop 2.x installations offer unmatched scalability and breakthrough extensibility that supports new and existing Big Data analytics processing methods and models. Hadoop® 2 Quick-Start Guide is the first easy, accessible guide to Apache Hadoop 2.x, YARN, and the modern Hadoop ecosystem. Building on his unsurpassed experience teaching Hadoop and Big Data, author Douglas Eadline covers all the basics you need to know to install and use Hadoop 2 on personal computers or servers, and to navigate the powerful technologies that complement it. Eadline concisely introduces and explains every key Hadoop 2 concept, tool, and service, illustrating each with a simple "beginning-to-end" example and identifying trustworthy, up-to-date resources for learning more. This guide is ideal if you want to learn about Hadoop 2 without getting mired in technical details. Douglas Eadline will bring you up to speed quickly, whether you're a user, admin, devops specialist, programmer, architect, analyst, or data scientist. Coverage Includes Understanding what Hadoop 2 and YARN do, and how they improve on Hadoop 1 with MapReduce Understanding Hadoop-based Data Lakes versus RDBMS Data Warehouses Installing Hadoop 2 and core services on Linux machines, virtualized sandboxes, or clusters Exploring the Hadoop Distributed File System (HDFS) Understanding the essentials of MapReduce and YARN application programming Simplifying programming and data movement with Apache Pig, Hive, Sqoop, Flume, Oozie, and HBase Observing application progress, controlling jobs, and managing workflows Managing Hadoop efficiently with Apache Ambari–including recipes for HDFS to NFSv3 gateway, HDFS snapshots, and YARN configuration Learning basic Hadoop 2 troubleshooting, and installing Apache Hue and Apache Spark
Learning Spark - Jules S. Damji 2020-07-16
Data is bigger, arrives faster, and comes in a variety of formats—and it all needs to be processed at scale for analytics or machine learning. But how can you process such varied workloads efficiently? Enter Apache Spark. Updated to include Spark 3.0, this second edition shows data engineers and data scientists why structure and unification in Spark matters.

Specifically, this book explains how to perform simple and complex data analytics and employ machine learning algorithms. Through step-by-step walk-throughs, code snippets, and notebooks, you'll be able to: Learn Python, SQL, Scala, or Java high-level Structured APIs Understand Spark operations and SQL Engine Inspect, tune, and debug Spark operations with Spark configurations and Spark UI Connect to data sources: JSON, Parquet, CSV, Avro, ORC, Hive, S3, or Kafka Perform analytics on batch and streaming data using Structured Streaming Build reliable data pipelines with open source Delta Lake and Spark Develop machine learning pipelines with MLlib and productionize models using MLflow

Hands-On Design Patterns with Java - Dr. Edward Lavieri 2019-04-27
Understand Gang of Four, architectural, functional, and reactive design patterns and how to implement them on modern Java platforms, such as Java 12 and beyond Key FeaturesLearn OOP, functional, and reactive patterns for creating readable and maintainable codeExplore architectural patterns and practices for building scalable and reliable applicationsTackle all kinds of performance-related issues and streamline development using design patternsBook Description Java design patterns are reusable and proven solutions to software design problems. This book covers over 60 battle-tested design patterns used by developers to create functional, reusable, and flexible software. Hands-On Design Patterns with Java starts with an introduction to the Unified Modeling Language (UML), and delves into class and object diagrams with the help of detailed examples. You'll study concepts and approaches to object-oriented programming (OOP) and OOP design patterns to build robust applications. As you advance, you'll explore the categories of GOF design patterns, such as behavioral, creational, and structural, that help you improve code readability and enable large-scale reuse of software. You'll also discover how to work effectively with microservices and serverless architectures by using cloud design patterns, each of which is thoroughly explained and accompanied by real-world programming solutions. By the end of the book, you'll be able to speed up your software development process

using the right design patterns, and you'll be comfortable working on scalable and maintainable projects of any size. What you will learnUnderstand the significance of design patterns for software engineeringVisualize software design with UML diagramsStrengthen your understanding of OOP to create reusable software systemsDiscover GOF design patterns to develop scalable applicationsExamine programming challenges and the design patterns that solve themExplore architectural patterns for microservices and cloud developmentWho this book is for If you are a developer who wants to learn how to write clear, concise, and effective code for building production-ready applications, this book is for you. Familiarity with the fundamentals of Java is assumed.

Hadoop: The Definitive Guide - Tom White 2010-09-24
Discover how Apache Hadoop can unleash the power of your data. This comprehensive resource shows you how to build and maintain reliable, scalable, distributed systems with the Hadoop framework -- an open source implementation of MapReduce, the algorithm on which Google built its empire. Programmers will find details for analyzing datasets of any size, and administrators will learn how to set up and run Hadoop clusters. This revised edition covers recent changes to Hadoop, including new features such as Hive, Sqoop, and Avro. It also provides illuminating case studies that illustrate how Hadoop is used to solve specific problems. Looking to get the most out of your data? This is your book. Use the Hadoop Distributed File System (HDFS) for storing large datasets, then run distributed computations over those datasets with MapReduce Become familiar with Hadoop's data and I/O building blocks for compression, data integrity, serialization, and persistence Discover common pitfalls and advanced features for writing real-world MapReduce programs Design, build, and administer a dedicated Hadoop cluster, or run Hadoop in the cloud Use Pig, a high-level query language for large-scale data processing Analyze datasets with Hive, Hadoop's data warehousing system Take advantage of HBase, Hadoop's database for structured and semi-structured data Learn ZooKeeper, a toolkit of coordination primitives

for building distributed systems "Now you have the opportunity to learn about Hadoop from a master -- not only of the technology, but also of common sense and plain talk." --Doug Cutting, Cloudera

Apache Hive Essentials - Dayong Du 2015-02-26
If you are a data analyst, developer, or simply someone who wants to use Hive to explore and analyze data in Hadoop, this is the book for you. Whether you are new to big data or an expert, with this book, you will be able to master both the basic and the advanced features of Hive. Since Hive is an SQL-like language, some previous experience with the SQL language and databases is useful to have a better understanding of this book.

Hadoop in Action - Chuck Lam 2010-11-30
Hadoop in Action teaches readers how to use Hadoop and write MapReduce programs. The intended readers are programmers, architects, and project managers who have to process large amounts of data offline. Hadoop in Action will lead the reader from obtaining a copy of Hadoop to setting it up in a cluster and writing data analytic programs. The book begins by making the basic idea of Hadoop and MapReduce easier to grasp by applying the default Hadoop installation to a few easy-to-follow tasks, such as analyzing changes in word frequency across a body of documents. The book continues through the basic concepts of MapReduce applications developed using Hadoop, including a close look at framework components, use of Hadoop for a variety of data analysis tasks, and numerous examples of Hadoop in action. Hadoop in Action will explain how to use Hadoop and present design patterns and practices of programming MapReduce. MapReduce is a complex idea both conceptually and in its implementation, and Hadoop users are challenged to learn all the knobs and levers for running Hadoop. This book takes you beyond the mechanics of running Hadoop, teaching you to write meaningful programs in a MapReduce framework. This book assumes the reader will have a basic familiarity with Java, as most code examples will be written in Java. Familiarity with basic statistical concepts (e.g. histogram, correlation) will help the reader appreciate the more advanced data processing examples. Purchase of the print book comes with an offer of a free PDF, ePub, and

Kindle eBook from Manning. Also available is all code from the book.

Mastering Hadoop 3 - Chanchal Singh 2019-02-28
A comprehensive guide to mastering the most advanced Hadoop 3 concepts Key FeaturesGet to grips with the newly introduced features and capabilities of Hadoop 3Crunch and process data using MapReduce, YARN, and a host of tools within the Hadoop ecosystemSharpen your Hadoop skills with real-world case studies and codeBook Description Apache Hadoop is one of the most popular big data solutions for distributed storage and for processing large chunks of data. With Hadoop 3, Apache promises to provide a high-performance, more fault-tolerant, and highly efficient big data processing platform, with a focus on improved scalability and increased efficiency. With this guide, you'll understand advanced concepts of the Hadoop ecosystem tool. You'll learn how Hadoop works internally, study advanced concepts of different ecosystem tools, discover solutions to real-world use cases, and understand how to secure your cluster. It will then walk you through HDFS, YARN, MapReduce, and Hadoop 3 concepts. You'll be able to address common challenges like using Kafka efficiently, designing low latency, reliable message delivery Kafka systems, and handling high data volumes. As you advance, you'll discover how to address major challenges when building an enterprise-grade messaging system, and how to use different stream processing systems along with Kafka to fulfil your enterprise goals. By the end of this book, you'll have a complete understanding of how components in the Hadoop ecosystem are effectively integrated to implement a fast and reliable data pipeline, and you'll be equipped to tackle a range of real-world problems in data pipelines. What you will learnGain an in-depth understanding of distributed computing using Hadoop 3Develop enterprise-grade applications using Apache Spark, Flink, and moreBuild scalable and high-performance Hadoop data pipelines with security, monitoring, and data governanceExplore batch data processing patterns and how to model data in HadoopMaster best practices for enterprises using, or planning to use, Hadoop 3 as a data platformUnderstand security aspects of Hadoop,

including authorization and authenticationWho this book is for If you want to become a big data professional by mastering the advanced concepts of Hadoop, this book is for you. You'll also find this book useful if you're a Hadoop professional looking to strengthen your knowledge of the Hadoop ecosystem. Fundamental knowledge of the Java programming language and basics of Hadoop is necessary to get started with this book.

JSON at Work - Tom Marrs 2017-06-19
JSON is becoming the backbone for meaningful data interchange over the internet. This format is now supported by an entire ecosystem of standards, tools, and technologies for building truly elegant, useful, and efficient applications. With this hands-on guide, author and architect Tom Marrs shows you how to build enterprise-class applications and services by leveraging JSON tooling and message/document design. JSON at Work provides application architects and developers with guidelines, best practices, and use cases, along with lots of real-world examples and code samples. You'll start with a comprehensive JSON overview, explore the JSON ecosystem, and then dive into JSON's use in the enterprise. Get acquainted with JSON basics and learn how to model JSON data Learn how to use JSON with Node.js, Ruby on Rails, and Java Structure JSON documents with JSON Schema to design and test APIs Search the contents of JSON documents with JSON Search tools Convert JSON documents to other data formats with JSON Transform tools Compare JSON-based hypermedia formats, including HAL and jsonapi Leverage MongoDB to store and access JSON documents Use Apache Kafka to exchange JSON-based messages between services

Practical Data Science with Hadoop and Spark - Ofer Mendelevitch 2016-12-08
The Complete Guide to Data Science with Hadoop—For Technical Professionals, Businesspeople, and Students Demand is soaring for professionals who can solve real data science problems with Hadoop and Spark. Practical Data Science with Hadoop® and Spark is your complete guide to doing just that. Drawing on immense experience with Hadoop and big data, three leading experts bring together everything you need: high-level concepts, deep-dive

techniques, real-world use cases, practical applications, and hands-on tutorials. The authors introduce the essentials of data science and the modern Hadoop ecosystem, explaining how Hadoop and Spark have evolved into an effective platform for solving data science problems at scale. In addition to comprehensive application coverage, the authors also provide useful guidance on the important steps of data ingestion, data munging, and visualization. Once the groundwork is in place, the authors focus on specific applications, including machine learning, predictive modeling for sentiment analysis, clustering for document analysis, anomaly detection, and natural language processing (NLP). This guide provides a strong technical foundation for those who want to do practical data science, and also presents business-driven guidance on how to apply Hadoop and Spark to optimize ROI of data science initiatives. Learn What data science is, how it has evolved, and how to plan a data science career How data volume, variety, and velocity shape data science use cases Hadoop and its ecosystem, including HDFS, MapReduce, YARN, and Spark Data importation with Hive and Spark Data quality, preprocessing, preparation, and modeling Visualization: surfacing insights from huge data sets Machine learning: classification, regression, clustering, and anomaly detection Algorithms and Hadoop tools for predictive modeling Cluster analysis and similarity functions Large-scale anomaly detection NLP: applying data science to human language

Getting Started with Impala - John Russell 2014-09-25
Learn how to write, tune, and port SQL queries and other statements for a Big Data environment, using Impala—the massively parallel processing SQL query engine for Apache Hadoop. The best practices in this practical guide help you design database schemas that not only interoperate with other Hadoop components, and are convenient for administers to manage and monitor, but also accommodate future expansion in data size and evolution of software capabilities. Written by John Russell, documentation lead for the Cloudera Impala project, this book gets you working with the most recent Impala releases quickly. Ideal for

database developers and business analysts, the latest revision covers analytics functions, complex types, incremental statistics, subqueries, and submission to the Apache incubator. Getting Started with Impala includes advice from Cloudera's development team, as well as insights from its consulting engagements with customers. Learn how Impala integrates with a wide range of Hadoop components Attain high performance and scalability for huge data sets on production clusters Explore common developer tasks, such as porting code to Impala and optimizing performance Use tutorials for working with billion-row tables, date- and time-based values, and other techniques Learn how to transition from rigid schemas to a flexible model that evolves as needs change Take a deep dive into joins and the roles of statistics

Big Data in Practice - Bernard Marr 2016-03-22
The best-selling author of Big Data is back, this time with a unique and in-depth insight into how specific companies use big data. Big data is on the tip of everyone's tongue. Everyone understands its power and importance, but many fail to grasp the actionable steps and resources required to utilise it effectively. This book fills the knowledge gap by showing how major companies are using big data every day, from an up-close, on-the-ground perspective. From

technology, media and retail, to sport teams, government agencies and financial institutions, learn the actual strategies and processes being used to learn about customers, improve manufacturing, spur innovation, improve safety and so much more. Organised for easy dip-in navigation, each chapter follows the same structure to give you the information you need quickly. For each company profiled, learn what data was used, what problem it solved and the processes put it place to make it practical, as well as the technical details, challenges and lessons learned from each unique scenario. Learn how predictive analytics helps Amazon, Target, John Deere and Apple understand their customers Discover how big data is behind the success of Walmart, LinkedIn, Microsoft and more Learn how big data is changing medicine, law enforcement, hospitality, fashion, science and banking Develop your own big data strategy by accessing additional reading materials at the end of each chapter

Hadoop Essentials - Shiva Achari 2015-04-29
If you are a system or application developer interested in learning how to solve practical problems using the Hadoop framework, then this book is ideal for you. This book is also meant for Hadoop professionals who want to find solutions to the different challenges they come across in their Hadoop projects.