

## Pentaho Data Integration Beginners Guide Second Edition

Clear your doubts about Business Intelligence and start your new journey

**KEY FEATURES** ? Includes successful methods and innovative ideas to achieve success with BI. ? Vendor-neutral, unbiased, and based on experience. ? Highlights practical challenges in BI journeys. ? Covers financial aspects along with technical aspects. ? Showcases multiple BI organization models and the structure of BI teams.

**DESCRIPTION** The book demystifies misconceptions and misinformation about BI. It provides clarity to almost everything related to BI in a simplified and unbiased way. It covers topics right from the definition of BI, terms used in the BI definition, coinage of BI, details of the different main uses of BI, processes that support the main uses, side benefits, and the level of importance of BI, various types of BI based on various parameters, main phases in the BI journey and the challenges faced in each of the phases in the BI journey. It clarifies myths about self-service BI and real-time BI. The book covers the structure of a typical internal BI team, BI organizational models, and the main roles in BI. It also clarifies the doubts around roles in BI. It explores the different components that add to the cost of BI and explains how to calculate the total cost of the ownership of BI and ROI for BI. It covers

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several ideas, including unconventional ideas to achieve BI success and also learn about IBI. It explains the different types of BI architectures, commonly used technologies, tools, and concepts in BI and provides clarity about the boundary of BI w.r.t technologies, tools, and concepts. The book helps you lay a very strong foundation and provides the right perspective about BI. It enables you to start or restart your journey with BI.

**WHAT YOU WILL LEARN ?**

- Builds a strong conceptual foundation in BI.
- Gives the right perspective and clarity on BI uses, challenges, and architectures.
- Enables you to make the right decisions on the BI structure, organization model, and budget.
- Explains which type of BI solution is required for your business.
- Applies successful BI ideas.

**WHO THIS BOOK IS FOR**

This book is a must-read for business managers, BI aspirants, CxOs, and all those who want to drive the business value with data-driven insights.

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Over 70 recipes to solve ETL problems using Pentaho Kettle.

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A complete guide to Pentaho Kettle, the Pentaho Data Integration toolset for ETL. This practical book is a complete guide to installing, configuring, and managing Pentaho Kettle. If you're a database administrator or developer, you'll first get up to speed on Kettle basics and how to apply Kettle to create ETL solutions—before progressing to specialized concepts such as clustering, extensibility, and data vault models. Learn how to design and build every phase of an ETL solution. Shows developers and database administrators how to use the open-source Pentaho Kettle for enterprise-level ETL processes (Extracting, Transforming, and Loading data). Assumes no prior knowledge of Kettle or ETL, and brings beginners thoroughly up to speed at their own pace. Explains how to get Kettle solutions up and running, then follows the 34 ETL subsystems model, as created by the Kimball Group, to explore the entire ETL lifecycle, including all aspects of data warehousing with Kettle. Goes beyond routine tasks to explore how to extend Kettle and scale Kettle solutions using a distributed “cloud”. Get the most out of Pentaho Kettle and your data warehousing with this detailed guide—from simple single table data migration to complex multisystem clustered data integration tasks.

This is a Cookbook with easy-to-follow recipes, containing practical and detailed examples which are all fully backed up with code, illustrations, and tips to

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dig deep into Backbone.js. This book is great for JavaScript developers who want to learn how to build advanced frontend applications with the Backbone.js framework. This book can be used in educational institutions to teach students how to build frontend applications in an MVC manner. It's assumed that you have some experience in jQuery, and are familiar with HTML.

Part of Packt's Beginner's Guide series, each chapter follows the creation of a fictional neighbourhood site to demonstrate an aspect of Liferay portal with practical examples, screenshots, and step-by-step instructions. All you need in order to benefit from the Liferay Beginner's Guide is programming experience. No prior knowledge of Liferay is required, although experienced Liferay portal programmers who need to get up to speed with its latest features will also find this book useful. Managing Data in Motion describes techniques that have been developed for significantly reducing the complexity of managing system interfaces and enabling scalable architectures. Author April Reeve brings over two decades of experience to present a vendor-neutral approach to moving data between computing environments and systems. Readers will learn the techniques, technologies, and best practices for managing the passage of data between computer systems and integrating disparate data together in an enterprise environment. The average

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enterprise's computing environment is comprised of hundreds to thousands computer systems that have been built, purchased, and acquired over time. The data from these various systems needs to be integrated for reporting and analysis, shared for business transaction processing, and converted from one format to another when old systems are replaced and new systems are acquired. The management of the "data in motion" in organizations is rapidly becoming one of the biggest concerns for business and IT management. Data warehousing and conversion, real-time data integration, and cloud and "big data" applications are just a few of the challenges facing organizations and businesses today. Managing Data in Motion tackles these and other topics in a style easily understood by business and IT managers as well as programmers and architects. Presents a vendor-neutral overview of the different technologies and techniques for moving data between computer systems including the emerging solutions for unstructured as well as structured data types Explains, in non-technical terms, the architecture and components required to perform data integration Describes how to reduce the complexity of managing system interfaces and enable a scalable data architecture that can handle the dimensions of "Big Data"

Would you like to use a consistent visual notation for drawing integration solutions? "Look inside the front

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cover." Do you want to harness the power of asynchronous systems without getting caught in the pitfalls? "See "Thinking Asynchronously" in the Introduction." Do you want to know which style of application integration is best for your purposes? "See Chapter 2, Integration Styles." Do you want to learn techniques for processing messages concurrently? "See Chapter 10, Competing Consumers and Message Dispatcher." Do you want to learn how you can track asynchronous messages as they flow across distributed systems? "See Chapter 11, Message History and Message Store." Do you want to understand how a system designed using integration patterns can be implemented using Java Web services, .NET message queuing, and a TIBCO-based publish-subscribe architecture? "See Chapter 9, Interlude: Composed Messaging." Utilizing years of practical experience, seasoned experts Gregor Hohpe and Bobby Woolf show how asynchronous messaging has proven to be the best strategy for enterprise integration success. However, building and deploying messaging solutions presents a number of problems for developers. "Enterprise Integration Patterns" provides an invaluable catalog of sixty-five patterns, with real-world solutions that demonstrate the formidable of messaging and help you to design effective messaging solutions for your enterprise. The authors also include examples covering a variety of different integration

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technologies, such as JMS, MSMQ, TIBCO ActiveEnterprise, Microsoft BizTalk, SOAP, and XSL. A case study describing a bond trading system illustrates the patterns in practice, and the book offers a look at emerging standards, as well as insights into what the future of enterprise integration might hold. This book provides a consistent vocabulary and visual notation framework to describe large-scale integration solutions across many technologies. It also explores in detail the advantages and limitations of asynchronous messaging architectures. The authors present practical advice on designing code that connects an application to a messaging system, and provide extensive information to help you determine when to send a message, how to route it to the proper destination, and how to monitor the health of a messaging system. If you want to know how to manage, monitor, and maintain a messaging system once it is in use, get this book.

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Get ready for C++20 with all you need to know for complete mastery! Your comprehensive and updated guide to one of the world's most popular programming languages is here! Whether you're a novice or expert, you'll find what you need to get going with the latest features of C++20. The workhorse of programming languages, C++ gives you the utmost control of data usage and interface and resource allocation. If your

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job involves data, proficiency in C++ means you're indispensable! This edition gives you 8 books in 1 for total C++ mastery. Inside, internationally renowned expert John Paul Mueller takes you from the fundamentals of working with objects and classes to writing applications that use paradigms not normally associated with C++, such as those used for functional programming strategies. The book also includes online resources such as source code. You discover how to use a C++ GNU compiler to build applications and even how to use your mobile device for coding. Conquer advanced programming and troubleshooting Streamline your code with lambda expressions Use C++ where you need it: for gaming, enterprise applications, and Web services Uncover object secrets including the use of design patterns Discover how to use functional programming techniques to make code concise and easy to read If you want to be your organization's C++ guru, C++ All-In-One for Dummies is where it's at!

Pentaho Data Integration Cookbook Second Edition is written in a cookbook format, presenting examples in the style of recipes. This allows you to go directly to your topic of interest, or follow topics throughout a chapter to gain a thorough in-depth knowledge. Pentaho Data Integration Cookbook Second Edition is designed for developers who are familiar with the basics of Kettle but who wish to move up to the next level. It is also aimed at advanced users that want to learn how to use the new features of PDI as well as and best practices for working with Kettle.

CD-ROM contains: Examples for text -- Toon3DCreator 1.7 with full source code.

If you already have basic knowledge of GNU/Linux and storage systems, but have no experience of software-defined storage solutions and Ceph, and are eager to learn about it, this is the book for you. If you are looking for your next career jump as a Ceph administrator, this book is also ideal for you.



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The COVID-19 pandemic has brought into sharp focus the need for the collection of data. Such data cannot be collected or provided without medical informatics, documentation and health data management. Nor can health data be evaluated and converted into a useful tool for making the important decisions that affect us all without biometrics and epidemiology, bioinformatics and systems biology. This book presents full papers from GMDS & CEN-IBS 2020, the first joint online conference of the German Association of Medical Informatics, Biometry and Epidemiology (GMDS) and the Central European Network & the International Biometric Society (CEN-IBS), held online between 6 and 11 September 2020. The title of the conference was Bringing Data to Life, a reference to the increasing amount of data in medical research which is inextricably related to the fast-developing digitalization of the health system. Many challenges must be addressed in order to make use of and benefit from these increasing sources of data, and these can only be faced if all disciplines related to data science work together. The conference aimed to bring together the diverse disciplines within data science, including medical informatics, bioinformatics, biostatistics, epidemiology, public health and medical documentation. Topics covered in the book include central themes relevant to society in general and advances in data technology which support innovations in medical research in particular. The book brings together many topics related to the provision and analysis of data in medicine, and will be of interest to all those working in the field.

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

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

A Cookbook with plenty of practical recipes for different uses of Storm.If you are a Java developer with basic knowledge of real-time processing and would like to learn Storm to process unbounded streams of data in real time, then this book is for you.

It will be a step-by-step tutorial that will discuss best practices. The book is structured in such a way that it can be read both from start to end or can be dipped into. If you are a developer who is looking to learn a fast and easy way to learn to develop your business intelligence apps with QlikView, then this book is for you. If you are a power-user in a QlikView environment, then you will find quicker ways of working with QlikView. You should know the basics of business intelligence before you pick up this book. This book covers QlikView Desktop Personal Edition. Deployments to

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QlikView Server/Publisher are out of scope for this book. "Pentaho Data Integration (a.k.a. Kettle) is a full-featured open source ETL (Extract, Transform, and Load) solution. Although PDI is a feature-rich tool, effectively capturing, manipulating, cleansing, transferring, and loading data can get complicated. This book is full of practical examples that will help you to take advantage of Pentaho Data Integration's graphical, drag-and-drop design environment. You will quickly get started with Pentaho Data Integration by following the step-by-step guidance in this book. The useful tips in this book will encourage you to exploit powerful features of Pentaho Data Integration and perform ETL operations with ease."--Resource description p.

Big Data: Principles and Paradigms captures the state-of-the-art research on the architectural aspects, technologies, and applications of Big Data. The book identifies potential future directions and technologies that facilitate insight into numerous scientific, business, and consumer applications. To help realize Big Data's full potential, the book addresses numerous challenges, offering the conceptual and technological solutions for tackling them. These challenges include life-cycle data management, large-scale storage, flexible processing infrastructure, data modeling, scalable machine learning, data analysis algorithms, sampling techniques, and privacy and ethical issues. Covers

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computational platforms supporting Big Data applications  
Addresses key principles underlying Big Data computing  
Examines key developments supporting next generation Big Data platforms  
Explores the challenges in Big Data computing and ways to overcome them  
Contains expert contributors from both academia and industry

This book focuses on teaching you by example. The book walks you through every aspect of Pentaho Data Integration, giving systematic instructions in a friendly style, allowing you to learn in front of your computer, playing with the tool. The extensive use of drawings and screenshots make the process of learning Pentaho Data Integration easy. Throughout the book, numerous tips and helpful hints are provided that you will not find anywhere else. This book is a must-have for software developers, database administrators, IT students, and everyone involved or interested in developing ETL solutions, or, more generally, doing any kind of data manipulation. Those who have never used Pentaho Data Integration will benefit most from the book, but those who have, they will also find it useful. This book is also a good starting point for database administrators, data warehouse designers, architects, or anyone who is responsible for data warehouse projects and needs to load data into them.

Explore, transform, validate, and integrate your data

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with ease Get started with Pentaho Data Integration from scratch. Enrich your data transformation operations by embedding Java and JavaScript code in PDI transformations. Create a simple but complete Datamart Project that will cover all key features of PDI. Part of Packt's Beginner's Guide series: Each task gradually develops from the previous task with an organized sequence of instructions accompanied with relevant explanation and a set of challenging tasks that the reader will be able to accomplish. In Detail Pentaho Data Integration (a.k.a. Kettle) is a full-featured open source ETL (Extract, Transform, and Load) solution. Although PDI is a feature-rich tool, effectively capturing, manipulating, cleansing, transferring, and loading data can get complicated. This book is full of practical examples that will help you to take advantage of Pentaho Data Integration's graphical, drag-and-drop design environment. You will quickly get started with Pentaho Data Integration by following the step-by-step guidance in this book. The useful tips in this book will encourage you to exploit powerful features of Pentaho Data Integration and perform ETL operations with ease. Starting with the installation of the PDI software, this book will teach you all the key PDI concepts. Each chapter introduces new features, allowing you to gradually get involved with the tool. First, you will learn to work with plain files, and to do all kinds of data manipulation. Then, the book gives you a primer on

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databases and teaches you how to work with databases inside PDI. Not only that, you'll be given an introduction to data warehouse concepts and you will learn to load data in a data warehouse. After that, you will learn to implement simple and complex processes. Once you've learned all the basics, you will build a simple datamart that will serve to reinforce all the concepts learned through the book. A practical, easy-to-read guide that gives you full understanding of the Pentaho Data Integration tool and shows you how to use it to your advantage to manipulate data.

Get up and running with the Pentaho Data Integration tool using this hands-on, easy-to-read guide

About This Book\* Manipulate your data by exploring, transforming, validating, and integrating it using Pentaho Data Integration 8 CE\* A comprehensive guide exploring the features of Pentaho Data Integration 8 CE\* Connect to any database engine, explore the databases, and perform all kind of operations on relational databases

Who This Book Is For This book is a must-have for software developers, business intelligence analysts, IT students, or anyone involved or interested in developing ETL solutions. If you plan on using Pentaho Data Integration for doing any data manipulation task, this book will help you as well. This book is also a good starting point for data warehouse designers, architects, or anyone who is

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responsible for data warehouse projects and needs to load data into them. What You Will Learn\* Explore the features and capabilities of Pentaho Data Integration 8 Community Edition\* Install and get started with PDI\* Learn the ins and outs of Spoon, the graphical designer tool\* Learn to get data from all kind of data sources, such as plain files, Excel spreadsheets, databases, and XML files\* Use Pentaho Data Integration to perform CRUD (create, read, update, and delete) operations on relational databases\* Populate a data mart with Pentaho Data Integration\* Use Pentaho Data Integration to organize files and folders, run daily processes, deal with errors, and more

**In Detail** Pentaho Data Integration (PDI) is an intuitive and graphical environment packed with drag-and-drop design and powerful Extract-Transform-Load (ETL) capabilities. This book shows and explains the new interactive features of Spoon, the revamped look and feel, and the newest features of the tool including transformations and jobs Executors and the invaluable Metadata Injection capability. We begin with the installation of PDI software and then move on to cover all the key PDI concepts. Each of the chapter introduces new features, enabling you to gradually get practicing with the tool. First, you will learn to do all kind of data manipulation and work with simple plain files. Then, the book teaches you how you can work with relational databases inside

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PDI. Moreover, you will be given a primer on data warehouse concepts and you will learn how to load data in a data warehouse. During the course of this book, you will be familiarized with its intuitive, graphical and drag-and-drop design environment. By the end of this book, you will learn everything you need to know in order to meet your data manipulation requirements. Besides, you will be given best practices and advises for designing and deploying your projects. Style and approach Step by step guide filled with practical, real world scenarios and examples.

Your all-in-one resource for using Pentaho with MySQL for Business Intelligence and Data Warehousing Open-source Pentaho provides business intelligence (BI) and data warehousing solutions at a fraction of the cost of proprietary solutions. Now you can take advantage of Pentaho for your business needs with this practical guide written by two major participants in the Pentaho community. The book covers all components of the Pentaho BI Suite. You'll learn to install, use, and maintain Pentaho and find plenty of background discussion that will bring you thoroughly up to speed on BI and Pentaho concepts. Of all available open source BI products, Pentaho offers the most comprehensive toolset and is the fastest growing open source product suite Explains how to build and load a data warehouse with Pentaho Kettle for data



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integration/ETL, manually create JFree (pentahoreporting services) reports using direct SQL queries, and create Mondrian (Pentaho analysis services) cubes and attach them to a JPivot cube browser. Review deploying reports, cubes and metadata to the Pentaho platform in order to distribute BI solutions to end-users. Shows how to set up scheduling, subscription and automatic distribution. The companion Web site provides complete source code examples, sample data, and links to related resources.

Socket.io Real-time Web Application Development. The LNCS journal Transactions on Large-Scale Data- and Knowledge-Centered Systems focuses on data management, knowledge discovery, and knowledge processing, which are core and hot topics in computer science. Since the 1990s, the Internet has become the main driving force behind application development in all domains. An increase in the demand for resource sharing (e.g., computing resources, services, metadata, data sources) across different sites connected through networks has led to an evolution of data- and knowledge management systems from centralized systems to decentralized systems enabling large-scale distributed applications providing high scalability. This, the 48th issue of Transactions on Large-Scale Data- and Knowledge-Centered Systems, contains 8 invited papers dedicated to the memory of Prof. Dr. Roland

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Wagner. The topics covered include distributed database systems, NewSQL, scalable transaction management, strong consistency, caches, data warehouse, ETL, reinforcement learning, stochastic approximation, multi-agent systems, ontology, model-driven development, organisational modelling, digital government, new institutional economics and data governance.

Summary Mondrian in Action teaches business users and developers how to use Mondrian and related tools for strategic business analysis. You'll learn how to design and populate a data warehouse and present the data via a multidimensional model. You'll follow examples showing how to create a Mondrian schema and then expand it to add basic security based on the users' roles. About the Technology Mondrian is an open source, lightning-fast data analysis engine designed to help you explore your business data and perform speed-of-thought analysis. Mondrian can be integrated into a wide variety of business analysis applications and learning it requires no specialized technical knowledge. About this Book Mondrian in Action teaches you to use Mondrian for strategic business analysis. In it, you'll learn how to organize and present data in a multidimensional manner. You'll follow apt and thoroughly explained examples showing how to create a Mondrian schema and then expand it to add basic security based on users' roles. Developers will discover how to integrate Mondrian using its olap4j Java API and web service calls via XML for Analysis. Written for developers building data analysis solutions. Appropriate for tech-savvy business users and DBAs needing to query and report on data. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning

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Publications. What's Inside Mondrian from the ground up—no experience required A primer on business analytics Using Mondrian with a variety of leading applications Optimizing and restricting business data for fast, secure analysis About the Authors William D. Back is an Enterprise Architect and Director of Pentaho Services. Nicholas Goodman is a Business Intelligence pro who has authored training courses on OLAP and Mondrian. Julian Hyde founded Mondrian and is the project's lead developer. Table of Contents Beyond reporting: business analytics Mondrian: a first look Creating the data mart Multidimensional modeling: making analytics data accessible How schemas grow Securing data Maximizing Mondrian performance Dynamic security Working with Mondrian and Pentaho Developing with Mondrian Advanced analytics

The need to handle increasingly larger data volumes is one factor driving the adoption of a new class of nonrelational “NoSQL” databases. Advocates of NoSQL databases claim they can be used to build systems that are more performant, scale better, and are easier to program. NoSQL Distilled is a concise but thorough introduction to this rapidly emerging technology. Pramod J. Sadalage and Martin Fowler explain how NoSQL databases work and the ways that they may be a superior alternative to a traditional RDBMS. The authors provide a fast-paced guide to the concepts you need to know in order to evaluate whether NoSQL databases are right for your needs and, if so, which technologies you should explore further. The first part of the book concentrates on core concepts, including schemaless data models, aggregates, new distribution models, the CAP theorem, and map-reduce. In the second part, the authors explore architectural and design issues associated with implementing NoSQL. They also present realistic use cases that demonstrate NoSQL databases at work and feature representative examples using

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Riak, MongoDB, Cassandra, and Neo4j. In addition, by drawing on Pramod Sadalage's pioneering work, NoSQL Distilled shows how to implement evolutionary design with schema migration: an essential technique for applying NoSQL databases. The book concludes by describing how NoSQL is ushering in a new age of Polyglot Persistence, where multiple data-storage worlds coexist, and architects can choose the technology best optimized for each type of data access. Data is arriving faster than you can process it and the overall volumes keep growing at a rate that keeps you awake at night. Hadoop can help you tame the data beast. Effective use of Hadoop however requires a mixture of programming, design, and system administration skills. "Hadoop Beginner's Guide" removes the mystery from Hadoop, presenting Hadoop and related technologies with a focus on building working systems and getting the job done, using cloud services to do so when it makes sense. From basic concepts and initial setup through developing applications and keeping the system running as the data grows, the book gives the understanding needed to effectively use Hadoop to solve real world problems. Starting with the basics of installing and configuring Hadoop, the book explains how to develop applications, maintain the system, and how to use additional products to integrate with other systems. While learning different ways to develop applications to run on Hadoop the book also covers tools such as Hive, Sqoop, and Flume that show how Hadoop can be integrated with relational databases and log collection. In addition to examples on Hadoop clusters on Ubuntu uses of cloud services such as Amazon, EC2 and Elastic MapReduce are covered. Getting Started With Amazon Redshift is a step-by-step, practical guide to the world of Redshift. Learn to load, manage, and query data on Redshift. This book is for CIOs, enterprise architects, developers, and anyone else who

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needs to get familiar with RedShift. The CIO will gain an understanding of what their technical staff is working on; the technical implementation personnel will get an in-depth view of the technology, and what it will take to implement their own solutions.

Get productive quickly with Pentaho Data Integration Key Features Take away the pain of starting with a complex and powerful system Simplify your data transformation and integration work Explore, transform, and validate your data with Pentaho Data Integration Book Description Pentaho Data Integration(PDI) is an intuitive and graphical environment packed with drag and drop design and powerful Extract-Transform-Load (ETL) capabilities. Given its power and flexibility, initial attempts to use the Pentaho Data Integration tool can be difficult or confusing. This book is the ideal solution. This book reduces your learning curve with PDI. It provides the guidance needed to make you productive, covering the main features of Pentaho Data Integration. It demonstrates the interactive features of the graphical designer, and takes you through the main ETL capabilities that the tool offers. By the end of the book, you will be able to use PDI for extracting, transforming, and loading the types of data you encounter on a daily basis. What you will learn Design, preview and run transformations in Spoon Run transformations using the Pan utility Understand how to obtain data from different types of files Connect to a database and explore it using the database explorer Understand how to transform data in a variety of ways Understand how to insert data into database tables Design and run jobs for sequencing tasks and sending emails Combine the execution of jobs and transformations Who this book is for This book is for software developers, business intelligence analysts, and others involved or interested in developing ETL solutions, or more generally, doing any kind of data manipulation.

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Acquire finesse with CTools features and build rich and custom analytics solutions using Pentaho About This Book Learn everything you need to know to make the most of CTools Create interactive and remarkable dashboards using the CTools Understand how to use and create data visualizations that can make the difference The author of our book works for Pentaho as a Senior Consultant Acts as a follow-up to Packt's previously published products on Pentaho such as Pentaho Business Analytics Cookbook, Pentaho Analytics for MongoDB, Pentaho Data Integration Cookbook - Second Edition, and Pentaho Reporting [Video] Our book is based on the latest version of Pentaho, that is, 6.0 Who This Book Is For If you are a CTools developer and would like to expand your knowledge and create attractive dashboards and frameworks, this book is the go-to-guide for you. A basic knowledge of JavaScript and Cascading Style Sheets (CSS) is highly recommended. What You Will Learn Install Community Tools on Pentaho; and understand the necessary concepts and considerations when creating an exciting dashboard design Get data from many different Pentaho datasources and deliver it in different formats (CSV, XLS, XML, or JSON) Use the Community Data Access (CDA) as the data abstraction layer and understand the concepts in the Community Dashboard Framework (CDF) Create a Community Dashboard Editor (CDE) dashboard and make the most of the main components Create and make use of widgets and use duplicate components to have data-driven sections on the dashboard Customize and create interaction between all components, including charts, using the Community Charts Components Create and embed dashboards in a better and new way Create plugins and make use of parameters inside Pentaho without writing code In Detail Pentaho and CTools are two of the fastest and most rapidly growing tools for practical solutions not found in any

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other tool available on the market. Using Pentaho allows you to build a complete analytics solution, and CTools brings an advanced flexibility to customizing them in a remarkable way. CTools provides its users with the ability to utilize Web technologies and data visualization concepts, and make the most of best practices to create a huge visual impact. The book starts with the basics of the framework and how to get data to your dashboards. We'll take you all the way through to create your custom and advanced dashboards that will create an effective visual impact and provide the best user experience. You will be given deep insights into the lifecycle of dashboards and the working of various components. Further, you will create a custom dashboard using the Community Dashboards Editor and use datasources to load data on the components. You will also create custom content using Query, the Freeform Addins Popup, and text components. Next, you will make use of widgets to create similar sections and duplicate components to reproduce other components on a dashboard. You will then learn to build a plugin without writing Java code, use Sparkl as a CPK plugin manager, and understand the application of deployment and version control to dashboard development. Finally, you will learn tips and tricks that can be very useful while embedding dashboards into other applications. This guide is an invaluable tutorial if you are planning to use custom and advanced dashboards among the solutions that you are building with Pentaho. Style and approach This book is a pragmatic, easy-to-follow guide that provides theoretical concepts, ideas, and tricks to better understand the necessary theoretical concepts. It also provides you with a set of highly intriguing samples of dashboards with customized code within them that can be utilized for future projects. Solve business challenges with Microsoft Power BI's advanced visualization and data analysis techniques Key



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Features Create effective storytelling reports by implementing simple-to-intermediate Power BI features Develop powerful analytical models to extract key insights for changing business needs Build, publish, and share impressive dashboards for your organization Book Description To succeed in today's transforming business world, organizations need business intelligence capabilities to make smarter decisions faster than ever before. This Power BI book is an entry-level guide that will get you up and running with data modeling, visualization, and analytical techniques from scratch. You'll find this book handy if you want to get well-versed with the extensive Power BI ecosystem. You'll start by covering the basics of business intelligence and installing Power BI. You'll then learn the wide range of Power BI features to unlock business insights. As you progress, the book will take you through how to use Power Query to ingest, cleanse, and shape your data, and use Power BI DAX to create simple to complex calculations. You'll also be able to add a variety of interactive visualizations to your reports to bring your data to life. Finally, you'll gain hands-on experience in creating visually stunning reports that speak to business decision makers, and see how you can securely share these reports and collaborate with others. By the end of this book, you'll be ready to create simple, yet effective, BI reports and dashboards using the latest features of Power BI. What you will learn Explore the different features of Power BI to create interactive dashboards Use the Query Editor to import and transform data Perform simple and complex DAX calculations to enhance analysis Discover business insights and tell a story with your data using Power BI Explore data and learn to manage datasets, dataflows, and data gateways Use workspaces to collaborate with others and publish your reports Who this book is for If you're an IT manager, data analyst, or BI user new to using Power BI for solving business



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intelligence problems, this book is for you. You'll also find this book useful if you want to migrate from other BI tools to create powerful and interactive dashboards. No experience of working with Power BI is expected.

Get up and running with the Pentaho Data Integration tool using this hands-on, easy-to-read guide

About This Book

Manipulate your data by exploring, transforming, validating, and integrating it using Pentaho Data Integration 8 CE

A comprehensive guide exploring the features of Pentaho Data Integration 8 CE

Connect to any database engine, explore the databases, and perform all kind of operations on relational databases

Who This Book Is For

This book is a must-have for software developers, business intelligence analysts, IT students, or anyone involved or interested in developing ETL solutions. If you plan on using Pentaho Data Integration for doing any data manipulation task, this book will help you as well. This book is also a good starting point for data warehouse designers, architects, or anyone who is responsible for data warehouse projects and needs to load data into them.

What You Will Learn

Explore the features and capabilities of Pentaho Data Integration 8 Community Edition

Install and get started with PDI

Learn the ins and outs of Spoon, the graphical designer tool

Learn to get data from all kind of data sources, such as plain files, Excel spreadsheets, databases, and XML files

Use Pentaho Data Integration to perform CRUD (create, read, update, and delete) operations on relationaldatabases

Populate a data mart with Pentaho Data Integration

Use Pentaho Data Integration to organize files and folders, run daily processes, deal with errors, and more

In Detail

Pentaho Data Integration(PDI) is an intuitive and graphical environment packed with drag-and-drop design and powerful Extract-Tranform-Load (ETL) capabilities. This book shows and explains the new interactive features of Spoon, the revamped look and feel, and the newest features

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of the tool including transformations and jobs Executors and the invaluable Metadata Injection capability. We begin with the installation of PDI software and then move on to cover all the key PDI concepts. Each of the chapter introduces new features, enabling you to gradually get practicing with the tool. First, you will learn to do all kind of data manipulation and work with simple plain files. Then, the book teaches you how you can work with relational databases inside PDI. Moreover, you will be given a primer on data warehouse concepts and you will learn how to load data in a data warehouse. During the course of this book, you will be familiarized with its intuitive, graphical and drag-and-drop design environment. By the end of this book, you will learn everything you need to know in order to meet your data manipulation requirements. Besides, your will be given best practices and advises for designing and deploying your projects. Style and approach Step by step guide filled with practical, real world scenarios and examples.

The data lake is a daring new approach for harnessing the power of big data technology and providing convenient self-service capabilities. But is it right for your company? This book is based on discussions with practitioners and executives from more than a hundred organizations, ranging from data-driven companies such as Google, LinkedIn, and Facebook, to governments and traditional corporate enterprises. You'll learn what a data lake is, why enterprises need one, and how to build one successfully with the best practices in this book. Alex Gorelik, CTO and founder of Waterline Data, explains why old systems and processes can no longer support data needs in the enterprise. Then, in a collection of essays about data lake implementation, you'll examine data lake initiatives, analytic projects, experiences, and best practices from data experts working in various industries. Get a succinct introduction to data warehousing,

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big data, and data science Learn various paths enterprises take to build a data lake Explore how to build a self-service model and best practices for providing analysts access to the data Use different methods for architecting your data lake Discover ways to implement a data lake from experts in different industries

A step-by-step tutorial on implementing Liferay- based portals to learn performance best practices. The book is good for Liferay portal developers and architects who want to learn performance best practices for implementing Liferay- based solutions. It is assumed that you have a working knowledge of the Liferay portal.

A practical guide to implementing your enterprise data lake using Lambda Architecture as the base About This Book Build a full-fledged data lake for your organization with popular big data technologies using the Lambda architecture as the base Delve into the big data technologies required to meet modern day business strategies A highly practical guide to implementing enterprise data lakes with lots of examples and real-world use-cases Who This Book Is For Java developers and architects who would like to implement a data lake for their enterprise will find this book useful. If you want to get hands-on experience with the Lambda Architecture and big data technologies by implementing a practical solution using these technologies, this book will also help you. What You Will Learn Build an enterprise-level data lake using the relevant big data technologies Understand the core of the Lambda architecture and how to apply it in an enterprise Learn the technical details around Sqoop and its functionalities Integrate Kafka with Hadoop components to acquire enterprise data Use flume with streaming technologies for stream-based processing Understand stream- based processing with reference to Apache Spark Streaming Incorporate Hadoop components and know the

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advantages they provide for enterprise data lakes Build fast, streaming, and high-performance applications using ElasticSearch Make your data ingestion process consistent across various data formats with configurability Process your data to derive intelligence using machine learning algorithms In Detail The term "Data Lake" has recently emerged as a prominent term in the big data industry. Data scientists can make use of it in deriving meaningful insights that can be used by businesses to redefine or transform the way they operate. Lambda architecture is also emerging as one of the very eminent patterns in the big data landscape, as it not only helps to derive useful information from historical data but also correlates real-time data to enable business to take critical decisions. This book tries to bring these two important aspects — data lake and lambda architecture—together. This book is divided into three main sections. The first introduces you to the concept of data lakes, the importance of data lakes in enterprises, and getting you up-to-speed with the Lambda architecture. The second section delves into the principal components of building a data lake using the Lambda architecture. It introduces you to popular big data technologies such as Apache Hadoop, Spark, Sqoop, Flume, and ElasticSearch. The third section is a highly practical demonstration of putting it all together, and shows you how an enterprise data lake can be implemented, along with several real-world use-cases. It also shows you how other peripheral components can be added to the lake to make it more efficient. By the end of this book, you will be able to choose the right big data technologies using the lambda architectural patterns to build your enterprise data lake. Style and approach The book takes a pragmatic approach, showing ways to leverage big data technologies and lambda architecture to build an enterprise-level data lake.

Create advanced reports, including cross tabs, sub-reports,

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and charts that connect to practically any data source using open source Pentaho Reporting.

Find the right big data solution for your business or organization Big data management is one of the major challenges facing business, industry, and not-for-profit organizations. Data sets such as customer transactions for a mega-retailer, weather patterns monitored by meteorologists, or social network activity can quickly outpace the capacity of traditional data management tools. If you need to develop or manage big data solutions, you'll appreciate how these four experts define, explain, and guide you through this new and often confusing concept. You'll learn what it is, why it matters, and how to choose and implement solutions that work.

Effectively managing big data is an issue of growing importance to businesses, not-for-profit organizations, government, and IT professionals Authors are experts in information management, big data, and a variety of solutions Explains big data in detail and discusses how to select and implement a solution, security concerns to consider, data storage and 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 helps you take charge of big data solutions for your organization.

Learn how to transition from Excel-based business intelligence (BI) analysis to enterprise stacks of open-source BI tools. Select and implement the best free and freemium open-source BI tools for your company's needs and design, implement, and integrate BI automation across the full stack using agile methodologies. Business Intelligence Tools for Small Companies provides hands-on demonstrations of open-source tools suitable for the BI requirements of small businesses. The authors draw on their deep experience as BI consultants, developers, and administrators to guide you

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through the extract-transform-load/data warehousing (ETL/DWH) sequence of extracting data from an enterprise resource planning (ERP) database freely available on the Internet, transforming the data, manipulating them, and loading them into a relational database. The authors demonstrate how to extract, report, and dashboard key performance indicators (KPIs) in a visually appealing format from the relational database management system (RDBMS). They model the selection and implementation of free and freemium tools such as Pentaho Data Integrator and Talend for ELT, Oracle XE and MySQL/MariaDB for RDBMS, and QlikSense, Power BI, and MicroStrategy Desktop for reporting. This richly illustrated guide models the deployment of a small company BI stack on an inexpensive cloud platform such as AWS. What You'll Learn You will learn how to manage, integrate, and automate the processes of BI by selecting and implementing tools to: Implement and manage the business intelligence/data warehousing (BI/DWH) infrastructure Extract data from any enterprise resource planning (ERP) tool Process and integrate BI data using open-source extract-transform-load (ETL) tools Query, report, and analyze BI data using open-source visualization and dashboard tools Use a MOLAP tool to define next year's budget, integrating real data with target scenarios Deploy BI solutions and big data experiments inexpensively on cloud platforms Who This Book Is For Engineers, DBAs, analysts, consultants, and managers at small companies with limited resources but whose BI requirements have outgrown the limitations of Excel spreadsheets; personnel in mid-sized companies with established BI systems who are exploring technological updates and more cost-efficient solutions This illuminating text/reference surveys the state of the art in data science, and provides practical guidance on big data analytics. Expert perspectives are provided by authoritative

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researchers and practitioners from around the world, discussing research developments and emerging trends, presenting case studies on helpful frameworks and innovative methodologies, and suggesting best practices for efficient and effective data analytics. Features: reviews a framework for fast data applications, a technique for complex event processing, and agglomerative approaches for the partitioning of networks; introduces a unified approach to data modeling and management, and a distributed computing perspective on interfacing physical and cyber worlds; presents techniques for machine learning for big data, and identifying duplicate records in data repositories; examines enabling technologies and tools for data mining; proposes frameworks for data extraction, and adaptive decision making and social media analysis.

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