

## Big Data Analytics With Microsoft Hdinsight In 24 Hours Sams Teach Yourself

A practical guide to implementing a scalable and fast state-of-the-art analytical data estate Key Features Store and analyze data with enterprise-grade security and auditing Perform batch, streaming, and interactive analytics to optimize your big data solutions with ease Develop and run parallel data processing programs using real-world enterprise scenarios Book Description Azure Data Lake, the modern data warehouse architecture, and related data services on Azure enable organizations to build their own customized analytical platform to fit any analytical requirements in terms of volume, speed, and quality. This book is your guide to learning all the features and capabilities of Azure data services for storing, processing, and analyzing data (structured, unstructured, and semi-structured) of any size. You will explore key techniques for ingesting and storing data and perform batch, streaming, and interactive analytics. The book also shows you how to overcome various challenges and complexities relating to productivity and scaling. Next, you will be able to develop and run massive data workloads to perform different actions. Using a cloud-based big data-modern data warehouse-analytics setup, you will also be able to build secure, scalable data estates for enterprises. Finally, you will not only learn how to develop a data warehouse but also understand how to create enterprise-grade security and auditing big data programs. By the end of this Azure book, you will have learned how to develop a powerful and efficient analytical platform to meet enterprise needs. What you will learn Implement data governance with Azure services Use integrated monitoring in the Azure Portal and integrate Azure Data Lake Storage into the Azure Monitor Explore the serverless feature for ad-hoc data discovery, logical data warehousing, and data wrangling Implement networking with Synapse Analytics and Spark pools Create and run Spark jobs with Databricks clusters Implement streaming using Azure Functions, a serverless runtime environment on Azure Explore the predefined ML services in Azure and use them in your app Who this book is for This book is for data architects, ETL developers, or anyone who wants to get well-versed with Azure data services to implement an analytical data estate for their enterprise. The book will also appeal to data scientists and data analysts who want to explore all the capabilities of Azure data services, which can be used to store, process, and analyze any kind of data. A beginner-level understanding of data analysis and streaming will be required.

Sams Teach Yourself Big Data Analytics with Microsoft HDInsight in 24 Hours In just 24 lessons of one hour or less, Sams Teach Yourself Big Data Analytics with Microsoft HDInsight in 24 Hours helps you leverage Hadoop's power on a flexible, scalable cloud platform using Microsoft's newest business intelligence, visualization, and productivity tools. This book's straightforward, step-by-step approach shows you how to provision, configure, monitor, and troubleshoot HDInsight and use Hadoop cloud services to solve real analytics problems.

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You'll gain more of Hadoop's benefits, with less complexity—even if you're completely new to Big Data analytics. Every lesson builds on what you've already learned, giving you a rock-solid foundation for real-world success. Practical, hands-on examples show you how to apply what you learn Quizzes and exercises help you test your knowledge and stretch your skills Notes and tips point out shortcuts and solutions Learn how to... · Master core Big Data and NoSQL concepts, value propositions, and use cases · Work with key Hadoop features, such as HDFS2 and YARN · Quickly install, configure, and monitor Hadoop (HDInsight) clusters in the cloud · Automate provisioning, customize clusters, install additional Hadoop projects, and administer clusters · Integrate, analyze, and report with Microsoft BI and Power BI · Automate workflows for data transformation, integration, and other tasks · Use Apache HBase on HDInsight · Use Sqoop or SSIS to move data to or from HDInsight · Perform R-based statistical computing on HDInsight datasets · Accelerate analytics with Apache Spark · Run real-time analytics on high-velocity data streams · Write MapReduce, Hive, and Pig programs Register your book at [informit.com/register](http://informit.com/register) for convenient access to downloads, updates, and corrections as they become available.

Prepare for Microsoft Exam 70-779—and help demonstrate your real-world mastery of Microsoft Excel data analysis and visualization. Designed for BI professionals, data analysts, and others who analyze business data with Excel, this Exam Ref focuses on the critical thinking and decision-making acumen needed for success at the MCSA level. Focus on the expertise measured by these objectives: Consume and transform data by using Microsoft Excel Model data, from building and optimizing data models through creating performance KPIs, actual and target calculations, and hierarchies Visualize data, including creating and managing PivotTables and PivotCharts, and interacting with PowerBI This Microsoft Exam Ref: Organizes its coverage by exam objectives Features strategic, what-if scenarios to challenge you Assumes you have a strong understanding of how to use Microsoft Excel to perform data analysis Big data, analytics, and artificial intelligence are revolutionizing work, management, and lifestyles and are becoming disruptive technologies for healthcare, e-commerce, and web services. However, many fundamental, technological, and managerial issues for developing and applying intelligent big data analytics in these fields have yet to be addressed. Managerial Perspectives on Intelligent Big Data Analytics is a collection of innovative research that discusses the integration and application of artificial intelligence, business intelligence, digital transformation, and intelligent big data analytics from a perspective of computing, service, and management. While highlighting topics including e-commerce, machine learning, and fuzzy logic, this book is ideally designed for students, government officials, data scientists, managers, consultants, analysts, IT specialists, academicians, researchers, and industry professionals in fields that include big data, artificial intelligence, computing, and

commerce.

This is the Rough Cut version of the printed book. With The world of data is changing rapidly. The growing demands of end users (Consumerization of IT) and availability of new types of data (Data explosion - 85% of this new data is coming from new data types e.g. sensors, RFIDs, WebLogs, high-definition video streaming, oil and gas exploration etc.) is causing a widening gap between our ability to store vast amounts of data and our ability to get meaningful insight and drive decision making based on this vast amount of data. This data explosion, combined with the fact that the cost of storage has practically gone to zero has landed us in a world where we need to have the ability to store all this data and get insight into it. This makes sense for companies to make better business decisions by enabling data scientists and other users to analyze huge volumes of transaction data as well as other data sources that may be left untapped by traditional business intelligence (BI) programs. On the analytics front there is a shift from traditional BI to predictive analytics as well - traditional BI helps customers to understand what has happened in past (rear view mirror) whereas predictive analysis allows customer to understand what would happen in future (forward-looking view). Predictive analysis has been effective in areas such as fraud detection, sales targeting, customer churn analysis, Ad Placement to increase revenue etc. This book is going to cover in detail about storing vast amount of data (big data) on hadoop on windows (in Windows Azure platform) and getting insight into it with familiar Microsoft BI tools. It addresses questions such as, "What is Big Data and how can Hadoop be used by an organization to tap into it? What are some of the important tools and technologies around the Hadoop ecosystem and Microsoft's partnership with Hortonworks?" From this book you will learn: Ease of installation, configuration and monitoring of Hadoop (HDInsight) cluster on cloud platform; Distributed storage and processing of unstructured data or big data; Programming to do big data analytics with MapReduce, Hive, PIG; Integration of Hadoop with Microsoft BI (MSBI) tools; Analyze and create visualization reports your with Microsoft Power BI.

Microsoft Big Data Solutions John Wiley & Sons

Data visualization has emerged as a serious scholarly topic, and a wide range of tools have recently been developed at an accelerated pace to aid in this research area. Examining different ways of analyzing big data can result in increased efficiency for many corporations and organizations. Data Visualization and Statistical Literacy for Open and Big Data highlights methodological developments in the way that data analytics is both learned and taught. Featuring extensive coverage on emerging relevant topics such as data complexity, statistics education, and curriculum development, this publication is geared toward teachers, academicians, students, engineers, professionals, and researchers that are interested in expanding their knowledge of data examination and analysis.

Analyze company data quickly and easily using Microsoft's powerful data tools.

Learn to build scalable and robust data models, clean and combine different data sources effectively, and create compelling and professional visuals. Beginning Power BI is a hands-on, activity-based guide that takes you through the process of analyzing your data using the tools that encompass the core of Microsoft's self-service BI offering. Starting with Power Query, you will learn how to get data from a variety of sources, and see just how easy it is to clean and shape the data prior to importing it into a data model. Using Power BI tabular and the Data Analysis Expressions (DAX), you will learn to create robust scalable data models which will serve as the foundation of your data analysis. From there you will enter the world of compelling interactive visualizations to analyze and gain insight into your data. You will wrap up your Power BI journey by learning how to package and share your reports and dashboards with your colleagues. Author Dan Clark takes you through each topic using step-by-step activities and plenty of screen shots to help familiarize you with the tools. This third edition covers the new and evolving features in the Power BI platform and new chapters on data flows and composite models. This book is your hands-on guide to quick, reliable, and valuable data insight. What You Will Learn Simplify data discovery, association, and cleansing Build solid analytical data models Create robust interactive data presentations Combine analytical and geographic data in map-based visualizations Publish and share dashboards and reports Who This Book Is For Business analysts, database administrators, developers, and other professionals looking to better understand and communicate with data

Get a 360-degree view of how the journey of data analytics solutions has evolved from monolithic data stores and enterprise data warehouses to data lakes and modern data warehouses. You will This book includes comprehensive coverage of how: To architect data lake analytics solutions by choosing suitable technologies available on Microsoft Azure The advent of microservices applications covering ecommerce or modern solutions built on IoT and how real-time streaming data has completely disrupted this ecosystem These data analytics solutions have been transformed from solely understanding the trends from historical data to building predictions by infusing machine learning technologies into the solutions Data platform professionals who have been working on relational data stores, non-relational data stores, and big data technologies will find the content in this book useful. The book also can help you start your journey into the data engineer world as it provides an overview of advanced data analytics and touches on data science concepts and various artificial intelligence and machine learning technologies available on Microsoft Azure. What Will You Learn You will understand the: Concepts of data lake analytics, the modern data warehouse, and advanced data analytics Architecture patterns of the modern data warehouse and advanced data analytics solutions Phases—such as Data Ingestion, Store, Prep and Train, and Model and Serve—of data analytics solutions and technology choices available on Azure under each phase In-depth coverage of real-time and batch mode data analytics solutions architecture Various managed services available on Azure such as Synapse analytics, event hubs, Stream analytics, CosmosDB, and managed Hadoop services such as Databricks and HDInsight Who This Book Is For Data platform professionals, database architects, engineers, and solution architects

Develop and manage effective real-time streaming solutions by leveraging the power of Microsoft Azure About This Book Analyze your data from various sources using Microsoft Azure Stream Analytics Develop, manage and automate your stream analytics solution with

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Microsoft Azure A practical guide to real-time event processing and performing analytics on the cloud Who This Book Is For If you are looking for a resource that teaches you how to process continuous streams of data in real-time, this book is what you need. A basic understanding of the concepts in analytics is all you need to get started with this book What You Will Learn Perform real-time event processing with Azure Stream Analysis Incorporate the features of Big Data Lambda architecture pattern in real-time data processing Design a streaming pipeline for storage and batch analysis Implement data transformation and computation activities over stream of events Automate your streaming pipeline using Powershell and the .NET SDK Integrate your streaming pipeline with popular Machine Learning and Predictive Analytics modelling algorithms Monitor and troubleshoot your Azure Streaming jobs effectively In Detail Microsoft Azure is a very popular cloud computing service used by many organizations around the world. Its latest analytics offering, Stream Analytics, allows you to process and get actionable insights from different kinds of data in real-time. This book is your guide to understanding the basics of how Azure Stream Analytics works, and building your own analytics solution using its capabilities. You will start with understanding what Stream Analytics is, and why it is a popular choice for getting real-time insights from data. Then, you will be introduced to Azure Stream Analytics, and see how you can use the tools and functions in Azure to develop your own Streaming Analytics. Over the course of the book, you will be given comparative analytic guidance on using Azure Streaming with other Microsoft Data Platform resources such as Big Data Lambda Architecture integration for real time data analysis and differences of scenarios for architecture designing with Azure HDInsight Hadoop clusters with Storm or Stream Analytics. The book also shows you how you can manage, monitor, and scale your solution for optimal performance. By the end of this book, you will be well-versed in using Azure Stream Analytics to develop an efficient analytics solution that can work with any type of data. Style and approach A comprehensive guidance on developing real-time event processing with Azure Stream Analysis

Explore the impressive storage and analytic tools available with the in-cloud and on-premises versions of Microsoft SQL Server 2019. Key Features Gain insights into what's new in SQL Server 2019 Understand use cases and customer scenarios that can be implemented with SQL Server 2019 Discover new cross-platform tools that simplify management and analysis Book Description Microsoft SQL Server comes equipped with industry-leading features and the best online transaction processing capabilities. If you are looking to work with data processing and management, getting up to speed with Microsoft Server 2019 is key. Introducing SQL Server 2019 takes you through the latest features in SQL Server 2019 and their importance. You will learn to unlock faster querying speeds and understand how to leverage the new and improved security features to build robust data management solutions. Further chapters will assist you with integrating, managing, and analyzing all data, including relational, NoSQL, and unstructured big data using SQL Server 2019. Dedicated sections in the book will also demonstrate how you can use SQL Server 2019 to leverage data processing platforms, such as Apache Hadoop and Spark, and containerization technologies like Docker and Kubernetes to control your data and efficiently monitor it. By the end of this book, you'll be well versed with all the features of Microsoft SQL Server 2019 and understand how to use them confidently to build robust data management solutions. What you will learn Build a custom container image with a Dockerfile Deploy and run the SQL Server 2019 container image Understand how to use SQL server on Linux Migrate existing paginated reports to Power BI Report Server Learn to query Hadoop Distributed File System (HDFS) data using Azure Data Studio Understand the benefits of In-Memory OLTP Who this book is for This book is for database administrators, architects, big data engineers, or anyone who has experience with SQL Server and wants to explore and implement the new features in SQL Server 2019. Basic working knowledge of SQL Server and relational database management system (RDBMS) is required.

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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

This book provides readers with a thorough understanding of various research areas within the field of data science. The book introduces readers to various techniques for data acquisition, extraction, and cleaning, data summarizing and modeling, data analysis and communication techniques, data science tools, deep learning, and various data science applications.

Researchers can extract and conclude various future ideas and topics that could result in potential publications or thesis. Furthermore, this book contributes to Data Scientists' preparation and to enhancing their knowledge of the field. The book provides a rich collection of manuscripts in highly regarded data science topics, edited by professors with long experience in the field of data science. Introduces various techniques, methods, and algorithms adopted by Data Science experts Provides a detailed explanation of data science perceptions, reinforced by practical examples Presents a road map of future trends suitable for innovative data science research and practice

Tap the power of Big Data with Microsoft technologies Big Data is here, and Microsoft's new Big Data platform is a valuable tool to help your company get the very most out of it. This timely book shows you how to use HDInsight along with HortonWorks Data Platform for Windows to store, manage, analyze, and share Big Data throughout the enterprise. Focusing primarily on Microsoft and HortonWorks technologies but also covering open source tools, Microsoft Big Data Solutions explains best practices, covers on-premises and cloud-based solutions, and features valuable case studies. Best of all, it helps you integrate these new solutions with technologies you already know, such as SQL Server and Hadoop. Walks you through how to integrate Big Data solutions in your company using Microsoft's HDInsight Server, HortonWorks Data Platform for Windows, and open source tools Explores both on-premises and cloud-based solutions Shows how to store, manage, analyze, and share Big Data through the enterprise Covers topics such as Microsoft's approach to Big Data, installing and configuring HortonWorks Data Platform for Windows, integrating Big Data with SQL Server, visualizing data with Microsoft and HortonWorks BI tools, and more Helps you build and execute a Big Data plan Includes contributions from the Microsoft and HortonWorks Big Data product teams If you need a detailed roadmap for designing and implementing a fully deployed Big Data solution, you'll want Microsoft Big Data Solutions.

Microsoft Business Intelligence or Power BI is a suite of business analytics tools to analyze data and share insights. Monitor your business and get answers quickly with rich dashboards available on every device. Data Analytics field is growing exponentially! Learn Introduction to Data Analytics Using Power BI Online and Power BI Desktop Power BI ( Microsoft Business Intelligence) offers basic data wrangling capabilities similar to Excel's Power Query. It also lets

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you create interactive visualizations, reports and dashboards with a few clicks or drag-and-drops; type natural-language questions about your data on a dashboard; and handle files that are too large for Excel. Power BI transforms your company's data into rich visuals for you to collect and organize so you can focus on what matters to you. Stay in the know, spot trends as they happen, and push your business further. It can work with dozens of data types -- not only Excel, Access and CSV files, but also Salesforce, Google Analytics, MailChimp, GitHub, QuickBooks Online and dozens of others. And, it will run R scripts -- meaning that any data you can pull in and massage via R you can import into Power BI We will use New York City Public Data Set as well as existing samples in Power BI So, if you are looking for new ways to seek insights and create powerful visualization on the fly, Power BI is the answer. You can transform your company's data into rich stunning easy to use visuals for you to collect and organize, so you can spot trends, collaborate in new ways, and make sense of your data. Increase your skills This course contains the following lessons: 1) Learn Data Analytics & Microsoft Business Intelligence concepts and application 2) Introduction to Power BI Online, Power BI Desktop, and the Interface 3) Be able to Import data using both Power BI Online and Power BI Desktop 4) Learn the difference between Power BI Online Vs Power BI Desktop 5) Master the skill of transforming Big Data - Real World Data Set (New York City Public data set) 6) Create stunning visualization 7) Using Quick Insights & Analytics 8) Asking Questions from your Big Data using plain English language... and much more What you'll learn - Understand how to use Power BI Online and Power BI Desktop - Perform Big Data Analytics using Real World Scenario - Transform Big Data and customize - Create Powerful Visualization based on Big Data - Sharing Dashboard with o...

Microsoft Azure Essentials from Microsoft Press is a series of free ebooks designed to help you advance your technical skills with Microsoft Azure. This third ebook in the series introduces Microsoft Azure Machine Learning, a service that a developer can use to build predictive analytics models (using training datasets from a variety of data sources) and then easily deploy those models for consumption as cloud web services. The ebook presents an overview of modern data science theory and principles, the associated workflow, and then covers some of the more common machine learning algorithms in use today. It builds a variety of predictive analytics models using real world data, evaluates several different machine learning algorithms and modeling strategies, and then deploys the finished models as machine learning web services on Azure within a matter of minutes. The ebook also expands on a working Azure Machine Learning predictive model example to explore the types of client and server applications you can create to consume Azure Machine Learning web services. Watch Microsoft Press's blog and Twitter (@MicrosoftPress) to learn about other free ebooks in the Microsoft Azure Essentials series.

Build a modern data warehouse on Microsoft's Azure Platform that is flexible, adaptable, and fast—fast to snap together, reconfigure, and fast at delivering results to drive good decision making in your business. Gone are the days when data warehousing projects were lumbering dinosaur-style projects that took forever, drained budgets, and produced business intelligence (BI) just in time to tell you what to do 10 years ago. This book will show you how to assemble a data warehouse solution like a jigsaw puzzle by connecting specific Azure technologies that address your own needs and bring value to your business. You will see how to implement a range of architectural patterns using batches, events, and streams for both data lake technology and SQL databases. You will discover how to manage metadata and automation to accelerate the development of your warehouse while establishing resilience at every level. And you will know how to feed downstream analytic solutions such as Power BI and Azure Analysis Services to empower data-driven decision making that drives your business forward toward a pattern of success. This book teaches you how to employ the Azure platform in a strategy to dramatically improve implementation speed and flexibility of data warehousing systems. You

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will know how to make correct decisions in design, architecture, and infrastructure such as choosing which type of SQL engine (from at least three options) best meets the needs of your organization. You also will learn about ETL/ELT structure and the vast number of accelerators and patterns that can be used to aid implementation and ensure resilience. Data warehouse developers and architects will find this book a tremendous resource for moving their skills into the future through cloud-based implementations. What You Will Learn Choose the appropriate Azure SQL engine for implementing a given data warehouse Develop smart, reusable ETL/ELT processes that are resilient and easily maintained Automate mundane development tasks through tools such as PowerShell Ensure consistency of data by creating and enforcing data contracts Explore streaming and event-driven architectures for data ingestion Create advanced staging layers using Azure Data Lake Gen 2 to feed your data warehouse Who This Book Is For Data warehouse or ETL/ELT developers who wish to implement a data warehouse project in the Azure cloud, and developers currently working in on-premise environments who want to move to the cloud, and for developers with Azure experience looking to tighten up their implementation and consolidate their knowledge

**EXCEL 2016 PREDICTIVE ANALYTICS FOR SERIOUS DATA CRUNCHERS!** Now, you can apply cutting-edge predictive analytics techniques to help your business win—and you don't need multimillion-dollar software to do it. All the tools you need are available in Microsoft Excel 2016, and all the knowledge and skills are right here, in this book! Microsoft Excel MVP Conrad Carlberg shows you how to use Excel predictive analytics to solve real problems in areas ranging from sales and marketing to operations. Carlberg offers unprecedented insight into building powerful, credible, and reliable forecasts, helping you gain deep insights from Excel that would be difficult to uncover with costly tools such as SAS or SPSS. Fully updated for Excel 2016, this guide contains valuable new coverage of accounting for seasonality and managing complex consumer choice scenarios. Throughout, Carlberg provides downloadable Excel 2016 workbooks you can easily adapt to your own needs, plus VBA code—much of it open-source—to streamline especially complex techniques. Step by step, you'll build on Excel skills you already have, learning advanced techniques that can help you increase revenue, reduce costs, and improve productivity. By mastering predictive analytics, you'll gain a powerful competitive advantage for your company and yourself. Learn the “how” and “why” of using data to make better decisions, and choose the right technique for each problem Capture live real-time data from diverse sources, including third-party websites Use logistic regression to predict behaviors such as “will buy” versus “won't buy” Distinguish random data bounces from real, fundamental changes Forecast time series with smoothing and regression Account for trends and seasonality via Holt-Winters smoothing Prevent trends from running out of control over long time horizons Construct more accurate predictions by using Solver Manage large numbers of variables and unwieldy datasets with principal components analysis and Varimax factor rotation Apply ARIMA (Box-Jenkins) techniques to build better forecasts and clarify their meaning Handle complex consumer choice problems with advanced logistic regression Benchmark Excel results against R results

Chart a course for more effective data analysis with Access 2007. With this resource, you'll learn how Access 2007 offers powerful functionality that may be better suited to your data analysis needs. Learn to analyze large amounts of data in meaningful ways, quickly and easily slice it into various views, automate redundant analysis, and save time—all using Access. If you know a bit about table structures and formulas as well as data analysis, start thinking outside the chart.

Learn the techniques and math you need to start making sense of your data About This Book Enhance your knowledge of coding with data science theory for practical insight into data science and analysis More than just a math class, learn how to perform real-world data science tasks with R and Python Create actionable insights and transform raw data into tangible value

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Who This Book Is For You should be fairly well acquainted with basic algebra and should feel comfortable reading snippets of R/Python as well as pseudo code. You should have the urge to learn and apply the techniques put forth in this book on either your own data sets or those provided to you. If you have the basic math skills but want to apply them in data science or you have good programming skills but lack math, then this book is for you. What You Will Learn Get to know the five most important steps of data science Use your data intelligently and learn how to handle it with care Bridge the gap between mathematics and programming Learn about probability, calculus, and how to use statistical models to control and clean your data and drive actionable results Build and evaluate baseline machine learning models Explore the most effective metrics to determine the success of your machine learning models Create data visualizations that communicate actionable insights Read and apply machine learning concepts to your problems and make actual predictions In Detail Need to turn your skills at programming into effective data science skills? Principles of Data Science is created to help you join the dots between mathematics, programming, and business analysis. With this book, you'll feel confident about asking—and answering—complex and sophisticated questions of your data to move from abstract and raw statistics to actionable ideas. With a unique approach that bridges the gap between mathematics and computer science, this books takes you through the entire data science pipeline. Beginning with cleaning and preparing data, and effective data mining strategies and techniques, you'll move on to build a comprehensive picture of how every piece of the data science puzzle fits together. Learn the fundamentals of computational mathematics and statistics, as well as some pseudocode being used today by data scientists and analysts. You'll get to grips with machine learning, discover the statistical models that help you take control and navigate even the densest datasets, and find out how to create powerful visualizations that communicate what your data means. Style and approach This is an easy-to-understand and accessible tutorial. It is a step-by-step guide with use cases, examples, and illustrations to get you well-versed with the concepts of data science. Along with explaining the fundamentals, the book will also introduce you to slightly advanced concepts later on and will help you implement these techniques in the real world.

This is the eBook of the printed book and may not include any media, website access codes, or print supplements that may come packaged with the bound book. Introducing Microsoft Power BI enables you to evaluate when and how to use Power BI. Get inspired to improve business processes in your company by leveraging the available analytical and collaborative features of this environment. Be sure to watch for the publication of Alberto Ferrari and Marco Russo's upcoming retail book, *Analyzing Data with Power BI and Power Pivot for Excel* (ISBN 9781509302765). Go to the book's page at the Microsoft Press Store here for more details:<http://aka.ms/analyzingdata/details>. Learn more about Power BI at <https://powerbi.microsoft.com/>.

Improve your analytics and data platform to solve major challenges, including operationalizing big data and advanced analytics workloads on Azure. You will learn how to monitor complex pipelines, set alerts, and extend your organization's custom monitoring requirements. This book starts with an overview of the Azure Data Factory as a hybrid ETL/ELT orchestration service on Azure. The book then dives into data movement and the connectivity capability of Azure Data Factory. You will learn about the support for hybrid data integration from disparate sources such as on-premise, cloud, or from SaaS applications. Detailed guidance is provided on how to transform data and on control flow. Demonstration of operationalizing the pipelines and ETL with SSIS is included. You will know how to leverage Azure Data Factory to run existing SSIS packages. As you advance through the book, you will wrap up by learning how to create a single pane for end-to-end monitoring, which is a key skill in building advanced analytics and big data pipelines. What You'll Learn Understand data integration on Azure cloud Build and operationalize an ADF pipeline Modernize a data warehouse Be aware of

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performance and security considerations while moving data Who This Book Is For Data engineers and big data developers. ETL (extract, transform, load) developers also will find the book useful in demonstrating various operations.

Get the definitive guide on designing applications on the Microsoft application platform—straight from the Microsoft patterns & practices team. Learn how to choose the most appropriate architecture and the best implementation technologies that the Microsoft application platform offers applications developers. Get critical design recommendations and guidelines organized by application type—from Web, mobile, and rich Internet applications to Office Business Applications. You’ll also get links to additional technical resources that can help with your application development.

Foreword. A transformed scientific method. Earth and environment. Health and wellbeing. Scientific infrastructure. Scholarly communication.

DATA ANALYSIS WITH MICROSOFT ACCESS 2010 is an introduction to Access with an emphasis on topics relevant to data analysis. The goal is to help the analyst gain a true understanding of data and the information it contains. Access queries are covered in detail, both in terms of the mechanics of their design, and how they can be used for typical data analysis tasks. The book is written in an easy-to-understand tutorial style, with new topics introduced in a logical and intuitive sequence. Numerous screenshots are included, so you won’t need to sit with a computer as you read the book. The author also broadens the concept of data analysis to encompass business intelligence (BI) topics, including valuable material on how to use Access and Excel pivot tables. Additional features include See the SQL sidebars that allow interested readers to learn SQL as they are learning Access, and Focus on Analysis sidebars that provide details on a number of useful quantitative topics. A companion website has a sample database that correlates with the BI material in the book. In short, this is the only book you’ll need to gain a working knowledge of Access, and how it can be used for data analysis. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

Publisher's Note: Products purchased from Third Party sellers are not guaranteed by the publisher for quality, authenticity, or access to any online entitlements included with the product. Explore, create, and manage highly interactive data visualizations using Microsoft Power BI Extract meaningful business insights from your disparate enterprise data using the detailed information contained in this practical guide. Written by a recognized BI expert and bestselling author, Data Analysis with Microsoft Power BI teaches you the skills you need to interact with, author, and maintain robust visualizations and custom data models. Hands-on exercises based on real-life business scenarios clearly demonstrate each technique. Publishing your results to the Power BI Service (PowerBI.com) and Power BI Report Server are also fully covered. Inside, you will discover how to:

- Understand Business Intelligence and self-service analytics
- Explore the tools and features of Microsoft Power BI
- Create and format effective data visualizations
- Incorporate advanced interactivity and custom graphics
- Build and populate accurate data models
- Transform data using the Power BI Query

Editor •Work with measures, calculated columns, and tabular models •Write powerful DAX language scripts •Share content on the PowerBI Service (PowerBI.com) •Store your visualizations on the Power BI Report Server

This book provides you with the skills necessary to get started with Azure Machine Learning to build predictive models as quickly as possible, in a very intuitive way, whether you are completely new to predictive analysis or an existing practitioner. The book starts by exploring ML Studio, the browser-based development environment, and explores the first step—data exploration and visualization. You will then build different predictive models using both supervised and unsupervised algorithms, including a simple recommender system. The focus then shifts to learning how to deploy a model to production and publishing it as an API. The book ends with a couple of case studies using all the concepts and skills you have learned throughout the book to solve real-world problems. This book will transform you into Data Analytics Expert . In this book you will learn how to use MS Excel and Power Bi to read, clean, transform, visualize and analyze the data. Book Outcomes

A. Skills

- 1.Understand what is Data Analytics
- 2.Change in perception to view data
- 3.In depth knowledge in MS Excel
- 4.In depth knowledge in Power Bi
- 5.Creating Interactive and deep insight Dashboards
- 6.How to use Data Analytics for effective decision making

B. Best Practices

Experience on how to transform and model data, create advanced calculations and build stunning reports, publish your model, build a dashboard.

C. Way Forward

Recommendations and guidance on how to apply the knowledge acquired to resolve real problems at the workplace.

Who can use

CMA, CA, MBA, CPA, CIMA, Engineers, IT professionals, Banking and Finance professionals, Marketing, Supply chain, Students in UG/PG programs, HSC passouts, and aspiring professionals of any other educational background.

Jobs opportunities

IT system analyst, Healthcare Data Analyst, Operations Analyst, Data Scientist, Data Analytics Consultant, Quantitative Analyst, Big Data Specialist

Prospective Employers

Banks, Insurance companies, Specialist software development companies, Consultancies, Telecommunications companies, Public sector organizations, Social media specialists, Colleges and universities, Pharmaceutical companies, Manufacturers

Cloud Analytics with Microsoft Azure enables you to understand the design and business considerations that you must keep in mind while planning to adopt the cloud analytics model for your business.

Data Science and Machine Learning are in high demand, as customers are increasingly looking for ways to glean insights from all their data. More customers now realize that Business Intelligence is not enough as the volume, speed and complexity of data now defy traditional analytics tools. While Business Intelligence addresses descriptive and diagnostic analysis, Data Science unlocks new opportunities through predictive and prescriptive analysis. The purpose of this book is to provide a gentle and instructionally organized introduction to the field of data science and machine learning, with a focus on building and

deploying predictive models. The book also provides a thorough overview of the Microsoft Azure Machine Learning service using task oriented descriptions and concrete end-to-end examples, sufficient to ensure the reader can immediately begin using this important new service. It describes all aspects of the service from data ingress to applying machine learning and evaluating the resulting model, to deploying the resulting model as a machine learning web service. Finally, this book attempts to have minimal dependencies, so that you can fairly easily pick and choose chapters to read. When dependencies do exist, they are listed at the start and end of the chapter. The simplicity of this new service from Microsoft will help to take Data Science and Machine Learning to a much broader audience than existing products in this space. Learn how you can quickly build and deploy sophisticated predictive models as machine learning web services with the new Azure Machine Learning service from Microsoft.

This book provides an introduction to the mathematical and algorithmic foundations of data science, including machine learning, high-dimensional geometry, and analysis of large networks. Topics include the counterintuitive nature of data in high dimensions, important linear algebraic techniques such as singular value decomposition, the theory of random walks and Markov chains, the fundamentals of and important algorithms for machine learning, algorithms and analysis for clustering, probabilistic models for large networks, representation learning including topic modelling and non-negative matrix factorization, wavelets and compressed sensing. Important probabilistic techniques are developed including the law of large numbers, tail inequalities, analysis of random projections, generalization guarantees in machine learning, and moment methods for analysis of phase transitions in large random graphs. Additionally, important structural and complexity measures are discussed such as matrix norms and VC-dimension. This book is suitable for both undergraduate and graduate courses in the design and analysis of algorithms for data.

Use this guide to one of SQL Server 2019's most impactful features—Big Data Clusters. You will learn about data virtualization and data lakes for this complete artificial intelligence (AI) and machine learning (ML) platform within the SQL Server database engine. You will know how to use Big Data Clusters to combine large volumes of streaming data for analysis along with data stored in a traditional database. For example, you can stream large volumes of data from Apache Spark in real time while executing Transact-SQL queries to bring in relevant additional data from your corporate, SQL Server database. Filled with clear examples and use cases, this book provides everything necessary to get started working with Big Data Clusters in SQL Server 2019. You will learn about the architectural foundations that are made up from Kubernetes, Spark, HDFS, and SQL Server on Linux. You then are shown how to configure and deploy Big Data Clusters in on-premises environments or in the cloud. Next, you are taught about querying. You will learn to write queries in Transact-SQL—taking advantage of skills you have honed for years—and with those queries you will be able to

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examine and analyze data from a wide variety of sources such as Apache Spark. Through the theoretical foundation provided in this book and easy-to-follow example scripts and notebooks, you will be ready to use and unveil the full potential of SQL Server 2019: combining different types of data spread across widely disparate sources into a single view that is useful for business intelligence and machine learning analysis. What You Will Learn Install, manage, and troubleshoot Big Data Clusters in cloud or on-premise environments Analyze large volumes of data directly from SQL Server and/or Apache Spark Manage data stored in HDFS from SQL Server as if it were relational data Implement advanced analytics solutions through machine learning and AI Expose different data sources as a single logical source using data virtualization Who This Book Is For Data engineers, data scientists, data architects, and database administrators who want to employ data virtualization and big data analytics in their environments

This book will show you how to use Power BI effectively to create a variety of visualizations and BI dashboards. Right from gathering data through various data sources, you will learn to perform effective visual analytics. By the end of this book, you will be able to gain unique, hidden insights into your data using Microsoft Power BI.

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!

Sams Teach Yourself Big Data Analytics with Microsoft HDInsight in 24 Hours In just 24 lessons of one hour or less, Sams Teach Yourself Big Data Analytics with Microsoft HDInsight in 24 Hours helps you leverage Hadoop's power on a flexible, scalable cloud platform using Microsoft's newest business intelligence, visualization, and productivity tools. This book's straightforward, step-by-step approach shows you how to provision, configure, monitor, and troubleshoot HDInsight and use Hadoop cloud services to solve real analytics problems. You'll gain more of Hadoop's benefits, with less complexity-even if you're completely new to Big Data analytics. Every lesson builds on what you've already learned, giving you a rock-solid foundation for real-world success. Practical, hands-on examples show you how to apply what you learn Quizzes and exercises help you

test your knowledge and stretch your skills Notes and tips point out shortcuts and solutions Learn how to... · Master core Big Data and NoSQL concepts, value propositions, and use cases · Work with key Hadoop features, such as HDFS2 and YARN · Quickly install, configure, and monitor Hadoop (HDInsight) clusters in the cloud · Automate provisioning, customize clusters, install additional Hadoop projects, and administer clusters · Integrate, analyze, and report with Microsoft BI and Power BI · Automate workflows for data transformation, integration, and other tasks · Use Apache HBase on HDInsight · Use Sqoop or SSIS to move data to or from HDInsight · Perform R-based statistical computing on HDInsight datasets · Accelerate analytics with Apache Spark · Run real-time analytics on high-velocity data streams · Write MapReduce, Hive, and Pig programs Register your book at [informit.com/register](http://informit.com/register) for convenient access to downloads, updates, and corrections as they become available.

Predictive Analytics with Microsoft Azure Machine Learning, Second Edition is a practical tutorial introduction to the field of data science and machine learning, with a focus on building and deploying predictive models. The book provides a thorough overview of the Microsoft Azure Machine Learning service released for general availability on February 18th, 2015 with practical guidance for building recommenders, propensity models, and churn and predictive maintenance models. The authors use task oriented descriptions and concrete end-to-end examples to ensure that the reader can immediately begin using this new service. The book describes all aspects of the service from data ingress to applying machine learning, evaluating the models, and deploying them as web services. Learn how you can quickly build and deploy sophisticated predictive models with the new Azure Machine Learning from Microsoft. What's New in the Second Edition? Five new chapters have been added with practical detailed coverage of: Python Integration – a new feature announced February 2015 Data preparation and feature selection Data visualization with Power BI Recommendation engines Selling your models on Azure Marketplace Helps users understand the breadth of Azure services by organizing them into a reference framework they can use when crafting their own big-data analytics solution.

Leverage the power of Azure to get efficient data insights from your big data in real time Key Features Explore the basics of cloud analytics using Azure Discover different ways to process and visualize your data easily Learn to use Azure Synapse Analytics (formerly known as Azure SQL Data Warehouse) to derive real-time customer insights Book Description With data being generated at an exponential speed, organizations all over the world are migrating their infrastructure to the cloud. Application management becomes much easier when you use a cloud platform to build, manage, and deploy your services and applications. Cloud Analytics with Microsoft Azure covers all that you need to extract useful insights from your data. You'll explore the power of data with big data analytics, the Internet of Things (IoT), machine learning, artificial

intelligence, and DataOps. You'll also delve into data analytics by studying use cases that focus on creating actionable insights from near-real-time data. As you advance, you'll learn to build an end-to-end analytics pipeline on the cloud with machine learning and deep learning concepts. By the end of this book, you'll have developed a solid understanding of data analytics with Azure and its practical implementation. What you will learn Explore the concepts of modern data warehouses and data pipelines Discover different design considerations while applying a cloud analytics solution Design an end-to-end analytics pipeline on the cloud Differentiate between structured, semi-structured, and unstructured data Choose a cloud-based service for your data analytics solutions Use Azure services to ingest, store and analyze data of any scale Who this book is for If you're planning to adopt the cloud analytics model for your business, this book will help you understand the design and business considerations that you must keep in mind. Though not necessary, a basic understanding of data analytics concepts such as data streaming, data types, the machine learning life cycle, and Docker containers will help you get the most out of the book.

Leverage the power of Azure to get efficient data insights from your big data in real time Key Features Explore the basics of cloud analytics using Azure Discover different ways to process and visualize your data easily Learn to use Azure Synapse Analytics (formerly known as Azure SQL Data Warehouse) to derive real-time customer insights Book Description With data being generated at an exponential speed, organizations all over the world are migrating their infrastructure to the cloud. Application management becomes much easier when you use a cloud platform to build, manage, and deploy your services and applications. Cloud Analytics with Microsoft Azure covers all that you need to extract useful insights from your data. You'll explore the power of data with big data analytics, the Internet of Things (IoT), machine learning, artificial intelligence, and DataOps. You'll also delve into data analytics by studying use cases that focus on creating actionable insights from near-real-time data. As you advance, you'll learn to build an end-to-end analytics pipeline on the cloud with machine learning and deep learning concepts. By the end of this book, you'll have developed a solid understanding of data analytics with Azure and its practical implementation. What you will learn Explore the concepts of modern data warehouses and data pipelines Discover different design considerations while applying a cloud analytics solution Design an end-to-end analytics pipeline on the cloud Differentiate between structured, semi-structured, and unstructured data Choose a cloud-based service for your data analytics solutions Use Azure services to ingest, store and analyze data of any scale Who this book is for If you're planning to adopt the cloud analytics model for your business, this book will help you understand the design and business considerations that you must keep in mind. Though not necessary, a basic understanding of data analytics concepts such as data streaming, data types, the machine learning life cycle, and Docker containers will help you get the most out of the book.

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