1. Record Nr. UNINA9910438100203321

Autore	Barker Tom
Titolo	Pro data visualization using R and JavaScript / / Tom Barker
Pubbl/distr/stampa	[Berkeley, CA], : Apress, 2013
ISBN	1-4302-5807-1
Edizione	[1st ed. 2013.]
Descrizione fisica	1 online resource (xvii, 195 pages) : illustrations (some color), maps (some color)
Collana	The expert's voice in Web development Pro data visualization using R and JavaScript
Disciplina	004 005.1 005.74
Soggetti	JavaScript (Computer program language) R (Computer program language) Information visualization
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"Analyze and visualize your key data"--Cover. Includes index.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	""Contents at a Glance""; ""Contents""; ""About the Author""; ""About the Technical Reviewer""; ""Acknowledgments""; ""Chapter 1: Background""; ""What Is Data Visualization?""; ""Time Series Charts""; ""Bar Charts""; ""Histograms""; ""Data Maps""; ""Scatter Plots""; ""History""; ""Modern Landscape""; ""Why Data Visualization?""; ""Tools""; ""Languages, Environments, and Libraries""; ""Analysis Tools""; ""Process Overview""; ""Identify a Problem""; ""Gather Data""; ""Analyze Data""; ""Visualize Data""; ""Ethics of Data Visualization""; ""Cite Sources""; ""Be Aware of Visual Cues""; ""Summary"" ""Chapter 2: R Language Primer""""Getting to Know the R Console""; ""The Command Line""; ""Command History""; ""Accessing Documentation""; ""Packages""; ""Importing Data""; ""Using Headers""; ""Specifying a String Delimiter""; ""Specifying Row Identifiers""; ""Using Custom Column Names""; ""Data Structures and Data Types""; ""Data Frames""; ""Matrices""; ""Adding Lists""; ""Looping Through Lists""; ""Applying Functions to Lists""; ""Functions""; ""Summary""; ""Chapter 3: A Deeper Dive into R""; ""Object-Oriented Programming in R""; ""S3

Classes""; ""S4 Classes""
""Statistical Analysis with Descriptive Metrics in R""""Median and Mean""; ""Quartiles""; ""Standard Deviation""; ""RStudio IDE""; ""R Markdown""; ""RPubs""; ""Summary""; ""Chapter 4: Data Visualization with D3""; ""Preliminary Concepts""; ""HTML""; ""CSS""; ""SVG""; ""JavaScript""; ""History of D3""; ""Using D3""; ""Setting Up a Project""; ""Using D3""; ""Binding Data""; ""Creating a Bar Chart""; ""Loading External Data""; ""Summary""; ""Chapter 5: Visualizing Spatial Data from Access Logs""; ""What Are Data Maps ?""; ""Access Logs""; ""Parsing the Access Log""; ""Read in the Access Log""
""Parse the Log File""""Geolocation by IP""; ""Output the Fields""; ""Adding Control Logic""; ""Creating a Data Map in R""; ""Mapping Geographic Data""; ""Adding Latitude and Longitude""; ""Displaying Regional Data""; ""Distributing the Visualization""; ""Summary""; ""Chapter 6: Visualizing Data Over Time""; ""Gathering Data""; ""Data Analysis with R""; ""Calculating the Bug Count""; ""Examining the Severity of the Bugs""; ""Adding Interactivity with D3""; ""Reading in the Data""; ""Drawing on the Page""; ""Adding Interactivity""; ""Summary""; ""Chapter 7: Bar Charts""; ""Standard Bar Chart""
""Stacked Bar Chart""""Grouped Bar Chart""; ""Visualizing and Analyzing Production Incidents""; ""Plotting Data on a Bar Chart with R""; ""Ordering Results""; ""Creating a Stacked Bar Chart""; ""Bar Charts in D3""; ""Creating a Vertical Bar Chart""; ""Creating a Stacked Bar Chart""; ""Creating an Overlaid Visualization""; ""Summary""; ""Chapter 8: Correlation Analysis with Scatter Plots""; ""Finding Relationships in Data""; ""Introductory Concepts of Agile Development""; ""Correlation Analysis""; ""Creating a Scatter Plot""; ""Creating a Bubble Chart""; ""Visualizing Bugs""
""Visualizing Production Incidents""

Sommario/riassunto

Pro Data Visualization using R and JavaScript makes the R language approachable, and promotes the idea of data gathering and analysis. You'll see how to use R to interrogate and analyze your data, and then use the D3 JavaScript library to format and display that data in an elegant, informative, and interactive way. You will learn how to gather data effectively, and also how to understand the philosophy and implementation of each type of chart, so as to be able to represent the results visually. With the popularity of the R language, the art and practice of creating data visualizations is no longer the preserve of mathematicians, statisticians, or cartographers. As technology leaders, we can gather metrics around what we do and use data visualizations to communicate that information. Pro Data Visualization using R and JavaScript combines the power of the R language with the simplicity and familiarity of JavaScript to display clear and informative data visualizations. Gathering and analyzing empirical data is the key to truly understanding anything. We can track operational metrics to quantify the health of our products in production. We can track quality metrics of our projects, and even use our data to identify bad code. Visualizing this data allows anyone to read our analysis and easily get a deep understanding of the story the data tells.