

Introduction

INTRODUCTION TO TABLEAU

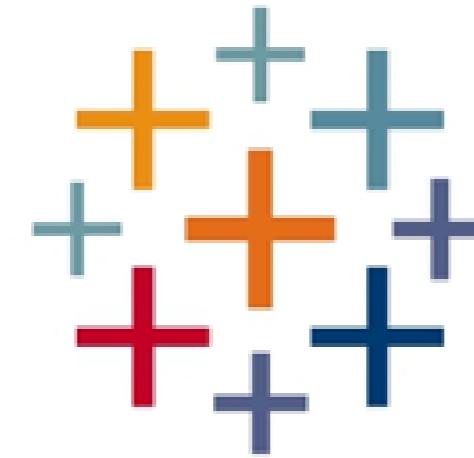


Maarten Van den Broeck

Content Developer at DataCamp

What is Tableau?

- Data visualization tool
- Click, drag, drop
- Beautiful, interactive visualizations



+ tableau

Why use Tableau?

- Accessible for a range of users
- Advanced analytical capabilities
- Flexible
- Intuitive
- Quick and robust prototyping
- Frame (business) questions
- Import and clean data
- Analyze and visualize data
- Drive business decisions
- Present insights

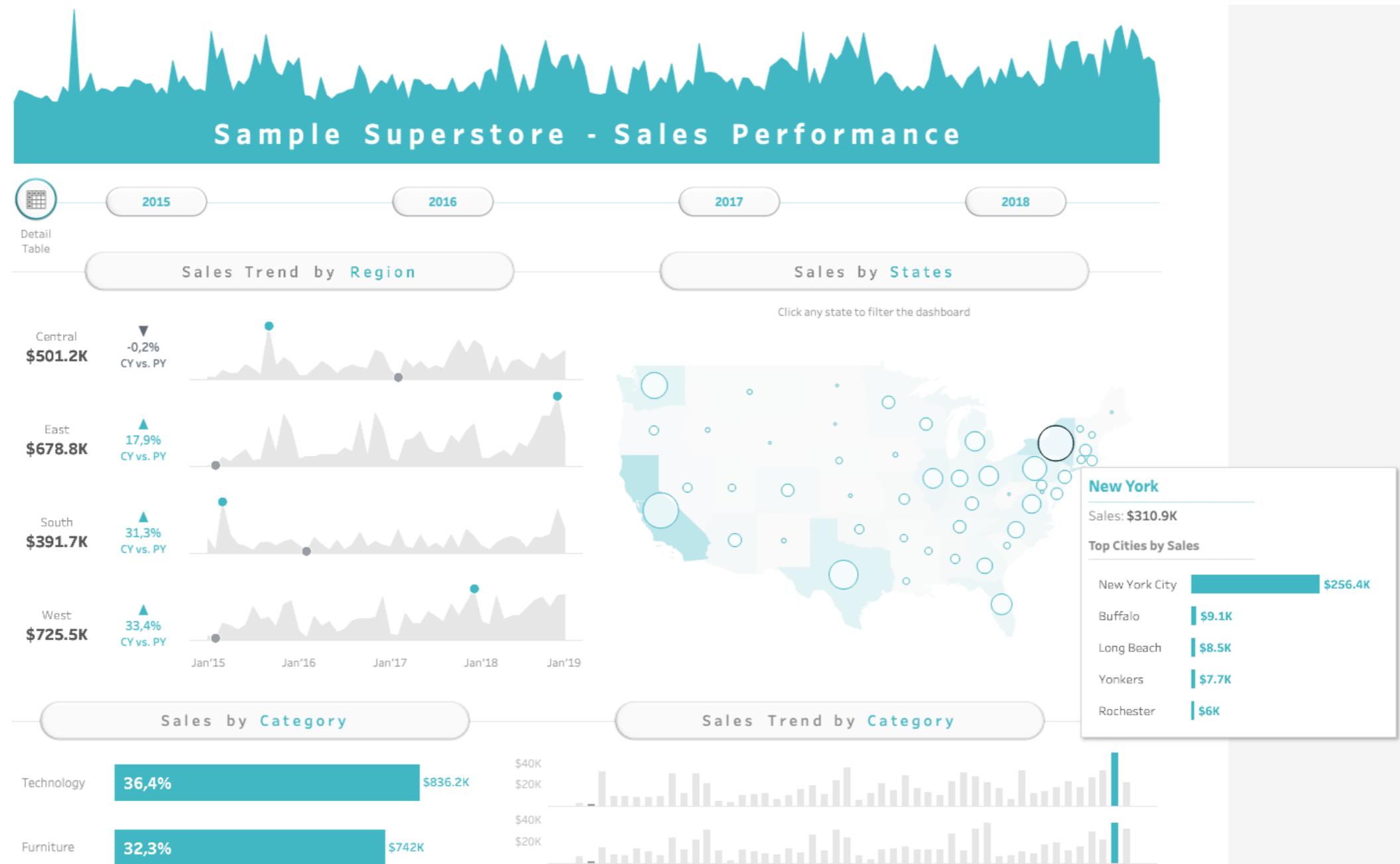


Who uses Tableau?

Roles

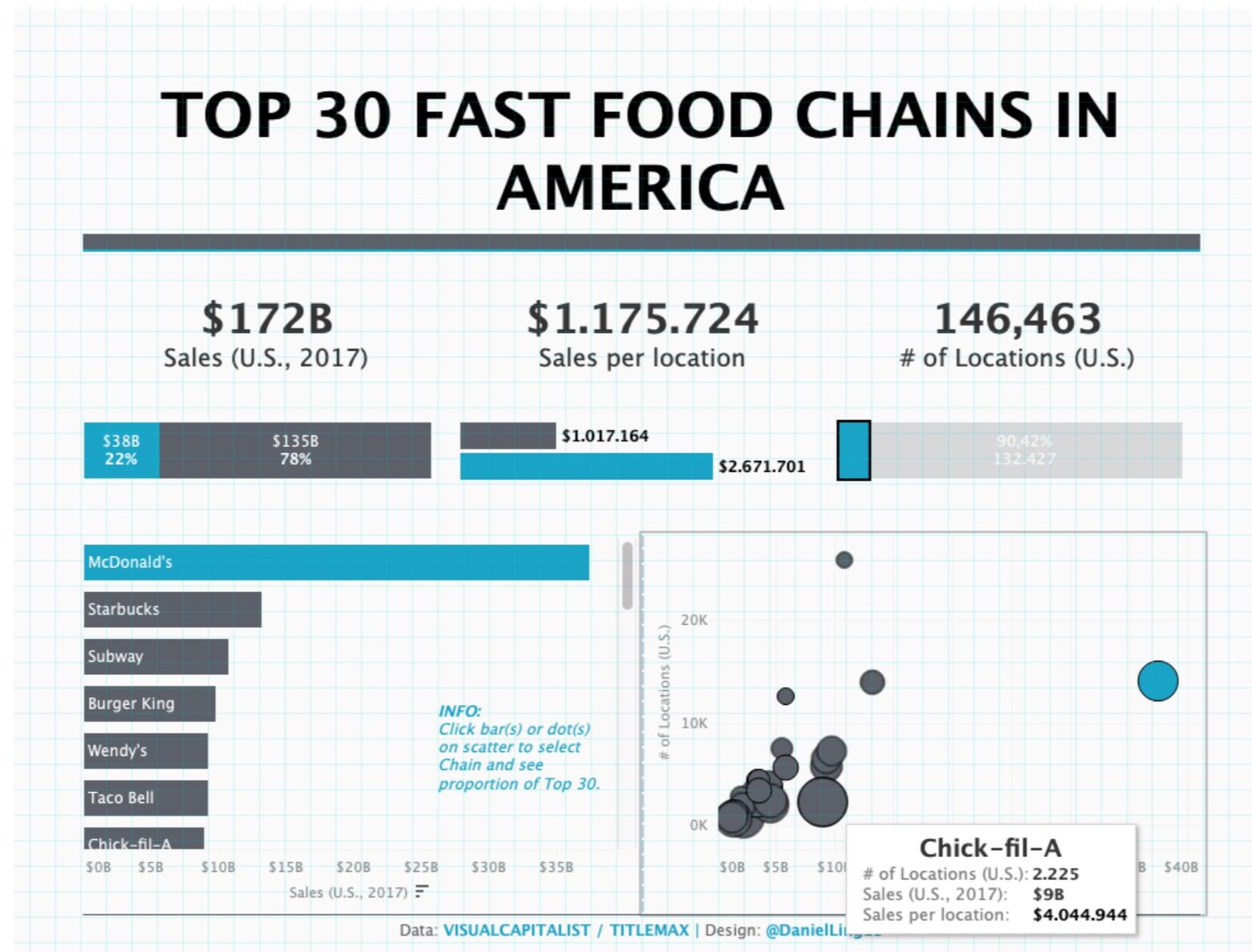
- Data analyst
- Business analyst
- Analytics consultant

Possibilities with Tableau



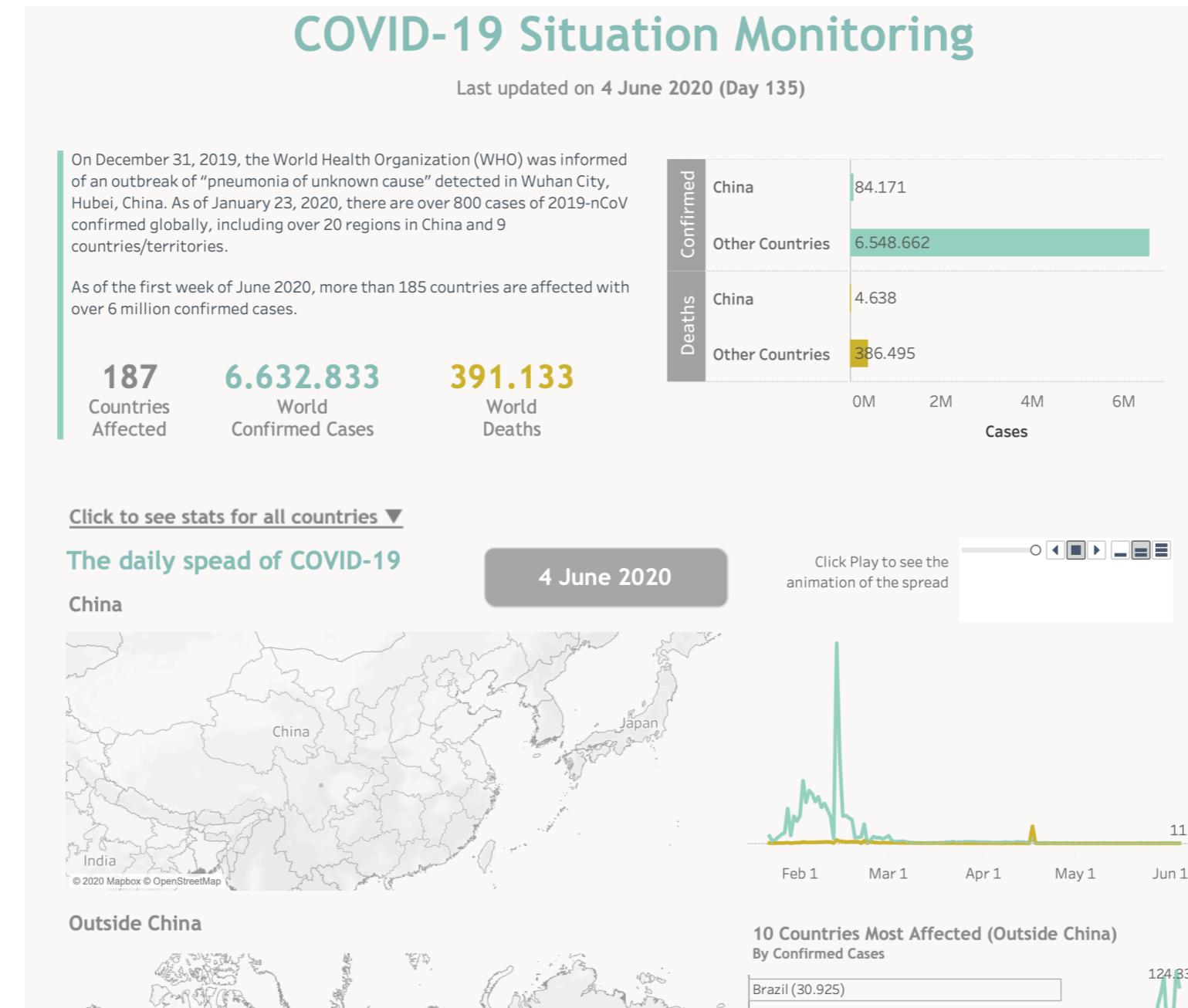
¹ Author: Pradeep Kumar G. Originally published on: Tableau Public

Possibilities with Tableau



¹ Author: Daniel Ling. Originally published on: Tableau Public

Possibilities with Tableau



¹ Author: Thi Ho. Originally published on: Tableau Public

Tableau versions

Tableau Desktop Public Edition

- Free
- All visualizations included
- Excel, csv, Google Sheets, web data
- 15 millions rows of data
- Publish locally¹ and online

¹ Since April 2024

Tableau versions

Tableau Desktop Public Edition

- Free
- All visualizations included
- Excel, csv, Google Sheets, web data
- 15 millions rows of data
- Publish locally¹ and online

Tableau Desktop

- Paid (license)
- All visualizations included
- All listed data sources
- Unlimited rows of data
- Publish locally and online

¹ Since April 2024

Let's practice!

INTRODUCTION TO TABLEAU

Connecting to data

INTRODUCTION TO TABLEAU



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Let's practice!

INTRODUCTION TO TABLEAU

Navigating Tableau

INTRODUCTION TO TABLEAU



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The screenshot shows the Tableau desktop application interface. The top navigation bar includes icons for file operations (New, Open, Save, etc.), a search bar, and a "Standard" view switcher. On the far right is a "Show Me" button.

The left sidebar contains the "Data" tab selected, and a dropdown menu for "Analytics". Below this is a section for the current data source, "san_francisco". A search bar and a filter icon are also present.

The main workspace is divided into several sections:

- Pages:** Shows "Sheet 1" currently selected.
- Columns:** A list of fields available for dragging into columns.
- Rows:** A list of fields available for dragging into rows.
- Filters:** A list of fields available for creating filters.
- Marks:** A panel for defining visual marks (Color, Size, Text, Detail, Tooltip) and their settings (Automatic).

The central area is labeled "Sheet 1" and features three large, empty rectangular boxes for dragging fields into columns, rows, and detail areas. Each box has a placeholder text "Drop field here".

The bottom navigation bar includes tabs for "Data Source" and "Sheet 1", along with other standard toolbar icons.

The screenshot shows the Tableau desktop application interface. The top navigation bar includes icons for file operations (New, Open, Save, etc.), a search bar, and a "Standard" view switcher. On the far right is a "Show Me" button.

The left sidebar contains the "Data" tab, which is currently active, and the "Analytics" tab. Under "Data", a single item, "san_francisco", is listed. Below this is a search bar and a "Tables" section listing various data fields:

- # Id
- Abc Neighbourhood
- # Reviews per Month
- Abc Room type
- Abc Measure Names

Below these are several items starting with "# Availability 2019" and ending with "# Measure Values".

The main workspace is titled "Sheet 1" and features a blank canvas with three "Drop field here" placeholder boxes. To the left of the canvas are the "Pages", "Columns", and "Rows" sections of the data pane. The "Marks" section is open, showing options for "Automatic" marking and four specific mark types: Color, Size, Text, Detail, and Tooltip.

The bottom navigation bar includes tabs for "Data Source" and "Sheet 1", along with other standard toolbar icons.

The screenshot shows the Tableau desktop application interface. The top navigation bar includes icons for file operations (New, Open, Save, etc.), a search bar, and a "Standard" view switcher. On the left, the "Data" pane displays a project named "san_francisco" with a search bar and a "Tables" section containing a list of fields. The "Marks" shelf on the right lists "Automatic" and provides options for Color, Size, Text, Detail, and Tooltip. The main workspace, titled "Sheet 1", features three empty drop zones labeled "Drop field here". The bottom navigation bar includes tabs for "Data Source" and "Sheet 1", along with other standard toolbar icons.

san_francisco

Search

Tables

- # Id
- Abc Neighbourhood
- # Reviews per Month
- Abc Room type
- Abc Measure Names
- # Availability 2019
- # Days Occupied in 2018
- # F1
- .LatLng Latitude
- LatLng Longitude
- # Minimum Nights
- # Number of Reviews
- # Price
- # san_francisco.csv (Count)
- # Measure Values

Pages

Columns

Rows

Marks

Automatic

Color

Size

Text

Detail

Tooltip

Sheet 1

Drop field here

Drop field here

Drop field here

Data Source Sheet 1

The screenshot shows the Tableau Data Prep interface. On the left, the 'Tables' pane lists various fields from a source named 'san_francisco'. Fields include 'Id', 'Neighbourhood', 'Reviews per Month' (selected), 'Room type', 'Measure Names', 'Availability 2019', 'Days Occupied in 2018', 'F1', 'Latitude', 'Longitude', 'Minimum Nights', 'Number of Reviews', 'Price', 'san_francisco.csv (Count)', and 'Measure Values'. The 'Marks' pane on the right shows options for 'Automatic' marks (Color, Size, Text) and 'Detail' and 'Tooltip' marks. The main workspace, 'Sheet 1', has three empty drop zones labeled 'Drop field here'.

The screenshot shows the Tableau desktop application interface. The top navigation bar includes icons for file operations (New, Open, Save, etc.), a search bar, and a "Standard" view switcher. On the left, the Data pane displays a project named "san_francisco" with a search bar and a "Tables" section listing various data fields. The "Marks" shelf on the right lists "Automatic" as the mark type, with options for Color, Size, and Text, along with Detail and Tooltip settings. The main workspace, "Sheet 1", features a grid with three columns and two rows, each labeled "Drop field here".

Project: san_francisco

Tables

- # Id
- Abc Neighbourhood
- # Reviews per Month
- Abc Room type
- Abc Measure Names
- # Availability 2019
- # Days Occupied in 2018
- # F1
- @ Latitude
- @ Longitude
- # Minimum Nights
- # Number of Reviews
- # Price
- # san_francisco.csv (Count)
- # Measure Values

Marks

- Automatic
- Color
- Size
- Text
- Detail
- Tooltip

Sheet 1

Drop field here

Drop field here

Drop field here

Data Source Sheet 1

The screenshot shows the Tableau desktop application interface. The top navigation bar includes icons for file operations (New, Open, Save, etc.), a search bar, and a "Standard" view switcher. On the left, the Data pane displays a project named "san_francisco" with a search bar and a "Tables" section containing a list of fields. The "Measures" section is highlighted with a blue border. The Marks shelf on the right lists "Automatic" marks (Color, Size, Text) and "Details" (Detail, Tooltip). The main workspace, "Sheet 1", features three blank drop zones labeled "Drop field here". The bottom navigation bar includes tabs for "Data Source" and "Sheet 1", along with other standard toolbar icons.

The screenshot shows the Tableau desktop application interface. The top navigation bar includes icons for file operations (New, Open, Save, etc.), a search bar, and a "Standard" view switcher. On the right, there's a "Show Me" button.

The left sidebar contains the "Data" tab, which is currently active, and the "Analytics" tab. Under "Data", the "san_francisco" data source is listed. A search bar and a filter dropdown are also present.

The main workspace is titled "Sheet 1". It features a large grid area with three "Drop field here" placeholder labels. To the left of the grid is the "Marks" shelf, which is set to "Automatic" and includes options for Color, Size, Text, Detail, and Tooltip.

The "Data" pane on the left lists various fields from the "san_francisco" data source:

- # Id
- Abc Neighbourhood
- # Reviews per Month
- Abc Room type
- Abc Measure Names
- # Availability 2019
- # Days Occupied in 2018
- # F1
- @ Latitude
- @ Longitude
- # Minimum Nights
- # Number of Reviews
- # Price
- # san_francisco.csv (Count)
- # Measure Values

The last four items in this list are highlighted with a blue rectangular selection box.

The bottom navigation bar includes tabs for "Data Source" and "Sheet 1", along with other standard toolbar icons.

The screenshot shows the Tableau desktop application interface. On the left, the 'Tables' shelf lists various data items, with 'Reviews per Month' selected and highlighted with a green border. A context menu is open over this item, displaying options such as 'Add to Sheet', 'Duplicate', 'Rename', 'Hide', 'Create', 'Convert to Discrete', 'Convert to Measure' (which is currently selected and highlighted in blue), 'Change Data Type', 'Geographic Role', 'Default Properties', 'Group by', 'Folders', 'Hierarchy', 'Replace References...', and 'Describe...'. The main workspace is titled 'Sheet 1' and contains two 'Drop field here' placeholder areas. The bottom navigation bar includes tabs for 'Data Source' and 'Sheet 1', along with other standard toolbar icons.

The screenshot shows the Tableau desktop application interface. On the left, the 'Tables' shelf lists various data items, with 'Reviews per Month' selected and highlighted with a green border. A context menu is open over this item, displaying options such as 'Add to Sheet', 'Duplicate', 'Rename', 'Hide', 'Create', 'Convert to Discrete' (which is currently selected and highlighted in blue), 'Convert to Measure', 'Change Data Type', 'Geographic Role', 'Default Properties', 'Group by', 'Folders', 'Hierarchy', 'Replace References...', and 'Describe...'. The main workspace is titled 'Sheet 1' and contains two blank rectangular drop zones labeled 'Drop field here'. The bottom navigation bar includes tabs for 'Data Source' and 'Sheet 1', along with other standard toolbar icons.

Data roles in Tableau

Discrete dimension

- Common, colored in blue
- Finite amount of values
- Can't be aggregated
- *E.g.* eye color, sex

Continuous measure

- Common, colored in green
- Infinite amount of values
- Can be aggregated
- *E.g.* height, weight

Data roles in Tableau

Discrete dimension

- Common, colored in blue
- Finite amount of values
- Can't be aggregated
- *E.g.* eye color, sex

Continuous dimension

- Not common, colored in green
- Infinite amount of values
- Can't be aggregated
- *E.g.* date

Discrete measure

- Not common, colored in blue
- Finite amount of values
- Can be aggregated
- *E.g.* shoe size, age

Continuous measure

- Common, colored in green
- Infinite amount of values
- Can be aggregated
- *E.g.* height, weight

Segmenting with dimensions

- Dimensions and measures affect visualizations differently:
 - Dimensions are used to **segment** data
 - Measures can be aggregated
- **Segmenting:** grouping similar data together
 - *E.g.* average price per room type

The screenshot shows the Tableau Data Prep interface. At the top, there's a toolbar with various icons for file operations, data management, and visualization. Below the toolbar, the left sidebar contains a 'Data' tab and an 'Analytics' dropdown set to 'san_francisco'. A search bar and a 'Tables' section are also present. The 'Tables' section lists several fields: Id, Neighbourhood, Reviews per Month, Room type, Measure Names, Availability 2019, Days Occupied in 2018, F1, Latitude, Longitude, Minimum Nights, Number of Reviews, Price, san_francisco.csv (Count), and Measure Values. The 'Neighbourhood' field is currently selected in the 'Rows' section of the top navigation bar. The main workspace is titled 'Sheet 1' and features a large grid area with three 'Drop field here' placeholder boxes. To the right of the grid, there's a 'Marks' section with options for Color, Size, Text, Detail, and Tooltip. The bottom of the screen shows a navigation bar with tabs for 'Data Source' and 'Sheet 1', along with other standard UI elements.

The screenshot shows the Tableau desktop application interface. The top navigation bar includes icons for file operations (New, Open, Save, etc.), a search bar, and a "Standard" view switcher. The left sidebar contains the "Data" and "Analytics" tabs, with "Data" selected. Under "Data", a connection named "san_francisco" is listed. Below the connection are search and filter tools. A "Tables" section lists various data fields: Id, Neighbourhood, Reviews per Month, Room type, Measure Names, Availability 2019, Days Occupied in 2018, F1, Latitude, Longitude, Minimum Nights, Number of Reviews, Price, san_francisco.csv (Count), and Measure Values. The main workspace is titled "Sheet 1" and features three empty rectangular drop zones labeled "Drop field here". The bottom navigation bar includes buttons for "Data Source", "Sheet 1", and other sheet tabs, along with a toolbar of common data visualization functions.

The screenshot shows the Tableau desktop application interface. The top navigation bar includes icons for file operations (New, Open, Save, etc.), a search bar, and a "Standard" view switcher. On the far right is a "Show Me" button.

The left sidebar contains the "Data" tab selected, showing a single data source named "san_francisco". Below it is a search bar and a "Tables" section listing various fields:

- # Id
- Abc Neighbourhood
- # Reviews per Month
- Abc Room type
- Abc Measure Names
- # Availability 2019
- # Days Occupied in 2018
- # F1
- ⊕ Latitude
- ⊕ Longitude
- # Minimum Nights
- # Number of Reviews
- # Price
- # san_francisco.csv (Count)
- # Measure Values

The main workspace is titled "Sheet 1". It features three large rectangular drop zones labeled "Drop field here" in each corner. To the left of these zones is a "Marks" shelf with options for Color, Size, Text, Detail, and Tooltip, currently set to "Automatic". Above the workspace are two panes: "Columns" and "Rows", both currently empty.

The bottom navigation bar includes tabs for "Data Source" and "Sheet 1", along with other standard toolbar icons.

The screenshot shows the Tableau desktop application interface. The top navigation bar includes icons for file operations (New, Open, Save, etc.), a search bar, and a "Standard" view switcher. On the left, the "Data" tab is selected, showing a connection named "san_francisco". Below it is a search bar and a "Tables" section listing various data fields. The main workspace is titled "Sheet 1" and contains three empty rectangular drop zones labeled "Drop field here". To the right of these zones is a "Marks" shelf with options for Color, Size, Text, Detail, and Tooltip. The bottom navigation bar features tabs for "Data Source" and "Sheet 1", along with other standard toolbar icons.

The screenshot shows the Tableau desktop application interface. The top navigation bar includes icons for file operations (New, Open, Save, etc.), a search bar, and a "Standard" view switcher. On the left, the "Data" pane displays a project named "san_francisco" with a search bar and a "Tables" section listing various data fields. The main workspace, titled "Sheet 1", features a "Marks" shelf on the left with options for Automatic, Color, Size, Text, Detail, and Tooltip. The central area has three "Drop field here" placeholder boxes. The bottom navigation bar includes tabs for "Data Source" and "Sheet 1", along with other standard toolbar icons.

The screenshot shows the Tableau desktop application interface. The top navigation bar includes icons for file operations (New, Open, Save, etc.), a search bar, and a "Show Me" button. The left sidebar has tabs for "Data" and "Analytics", with "Data" selected. Under "Data", there is a section for "san_francisco" containing a search bar and a "Tables" list. The "Tables" list includes fields such as Id, Neighbourhood, Reviews per Month, Room type, Measure Names, Availability 2019, Days Occupied in 2018, F1, Latitude, Longitude, Minimum Nights, Number of Reviews, Price, san_francisco.csv (Count), and Measure Values. Below the tables list are sections for "Pages", "Columns", and "Rows". The main workspace is titled "Sheet 1" and contains three blank rectangular areas labeled "Drop field here". On the right side of the workspace are "Marks" settings: "Automatic" (Color, Size, Text) and "Detail" (Detail, Tooltip). The bottom navigation bar includes buttons for "Data Source", "Sheet 1", and other sheet tabs, along with standard window control buttons.

The screenshot shows the Tableau desktop application interface. The top navigation bar includes icons for file operations (New, Open, Save, etc.), a search bar, and a "Standard" view switcher. On the left, the "Data" tab is selected, showing a connection named "san_francisco". A search bar and a "Tables" section listing various data fields are also present. The main workspace is titled "Sheet 1" and contains a blank canvas with three "Drop field here" placeholder boxes. The "Marks" shelf on the left is expanded, showing options for "Automatic" marking and four specific marks: Color, Size, Text, Detail, and Tooltip. The bottom navigation bar includes tabs for "Data Source" and "Sheet 1", along with other standard toolbar icons.

The screenshot shows the Tableau desktop application interface. The top navigation bar includes icons for file operations (New, Open, Save, etc.), a search bar, and a "Standard" view switcher. On the far right is a "Show Me" button.

The left sidebar contains the "Data" tab selected, with a dropdown menu for "Analytics". Below it is a project named "san_francisco". A search bar and a filter icon are also present.

The main workspace is divided into several sections:

- Pages:** Shows "Sheet 1" currently selected.
- Columns:** An empty section where fields can be dropped.
- Rows:** An empty section where fields can be dropped.
- Filters:** An empty section.
- Marks:** A panel showing the current mark type is "Automatic". It includes buttons for "Color", "Size", "Text", "Detail", and "Tooltip".
- Sheet 1 Canvas:** A large area with three "Drop field here" placeholder boxes.

The bottom navigation bar includes tabs for "Data Source" and "Sheet 1", along with other standard toolbar icons.

The screenshot shows the Tableau Data Prep interface. On the left, there's a sidebar with tabs for 'Data' and 'Analytics'. Under 'Data', a connection named 'san_francisco' is listed. Below it is a search bar and a 'Tables' section containing various fields: 'Id', 'Neighbourhood', 'Reviews per Month' (which is highlighted with a green border), 'Room type', 'Measure Names', 'Availability 2019', 'Days Occupied in 2018', 'F1', 'Latitude', 'Longitude', 'Minimum Nights', 'Number of Reviews', 'Price', 'san_francisco.csv (Count)', and 'Measure Values'. A 'Filters' section is also present. The main area is titled 'Sheet 1' and contains a large grid with three columns. The first column has two 'Drop field here' labels. The second and third columns each have one 'Drop field here' label. On the right side of the main area, there's a 'Marks' dropdown menu open, showing options like Automatic, Bar, Line, Area, Square, Circle, Shape, Text, Map, Pie, Gantt Bar, Polygon, and Density. The 'Automatic' option is selected. The bottom navigation bar includes buttons for 'Data Source', 'Sheet 1', and other sheet icons.

The screenshot shows the Tableau Data Prep interface. The top navigation bar includes icons for file operations (New, Open, Save, etc.), a search bar, and a "Standard" view switcher. On the left, the "Data" tab is selected, showing a list of datasets: "san_francisco" (selected), "Search" (with a magnifying glass icon), and a "Tables" section containing various fields like "Id", "Neighbourhood", "Reviews per Month" (which is highlighted with a green border), "Room type", "Measure Names", and many others. Below the tables is a "Filters" section and a "Marks" section with options for Color, Size, Text, Detail, and Tooltip. The main workspace is titled "Sheet 1" and contains three large, empty rectangular areas labeled "Drop field here". At the bottom, there's a toolbar with icons for "Data Source", "Sheet 1", and other sheet management functions.

Our business question

Which neighborhood and room type has the highest price in New York?

Let's practice!

INTRODUCTION TO TABLEAU

A tour of the interface

INTRODUCTION TO TABLEAU



Hadrien Lacroix

Content Developer at DataCamp

Let's practice!

INTRODUCTION TO TABLEAU

How to create visualizations in Tableau

INTRODUCTION TO TABLEAU



Maarten Van den Broeck

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