

# Introduction

## INTRODUCTION TO TABLEAU

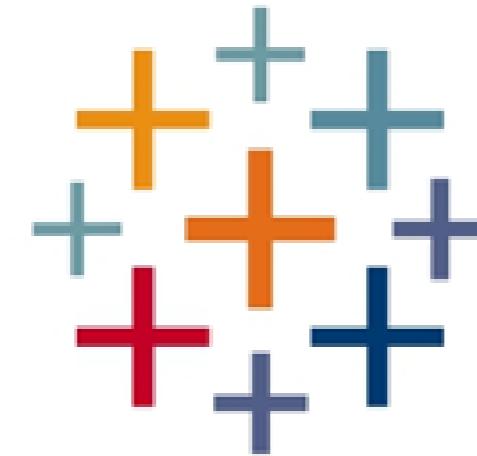


**Hadrien Lacroix**

Content Developer at DataCamp

# What is Tableau

- Visualization tool
- VizQL
- Easy
- Beautiful
- Interactive



+ a b l e a u

# Why use Tableau

Traditional photography



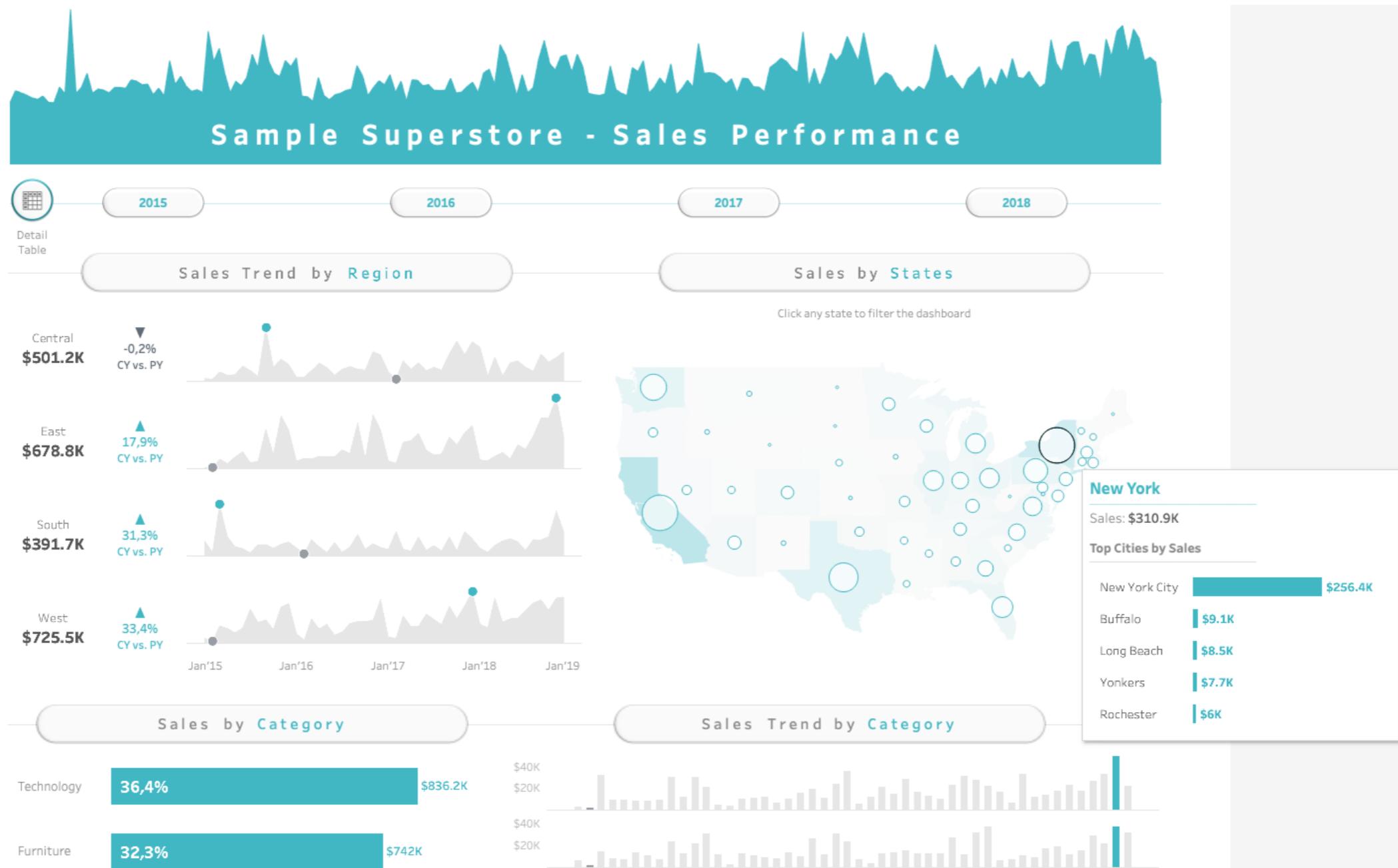
Digital photography



# Why use Tableau

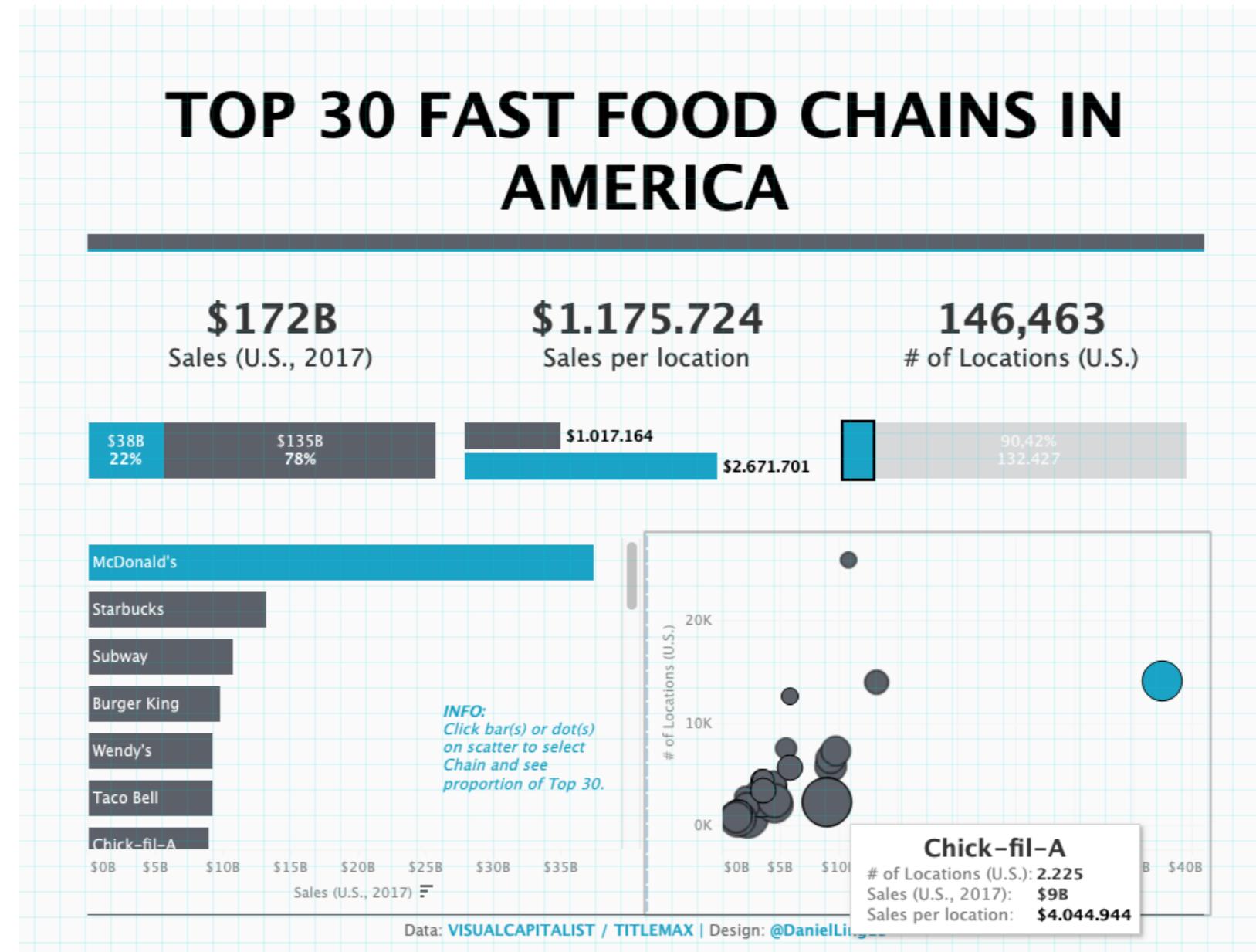
- Accessible but complete
- Flexible
- Intuitive
- Quick and robust prototyping
- Frame business questions
- Import and clean data
- Analyze and visualize data
- Drive business decisions
- Present insights

# Why use Tableau - Monitoring performance



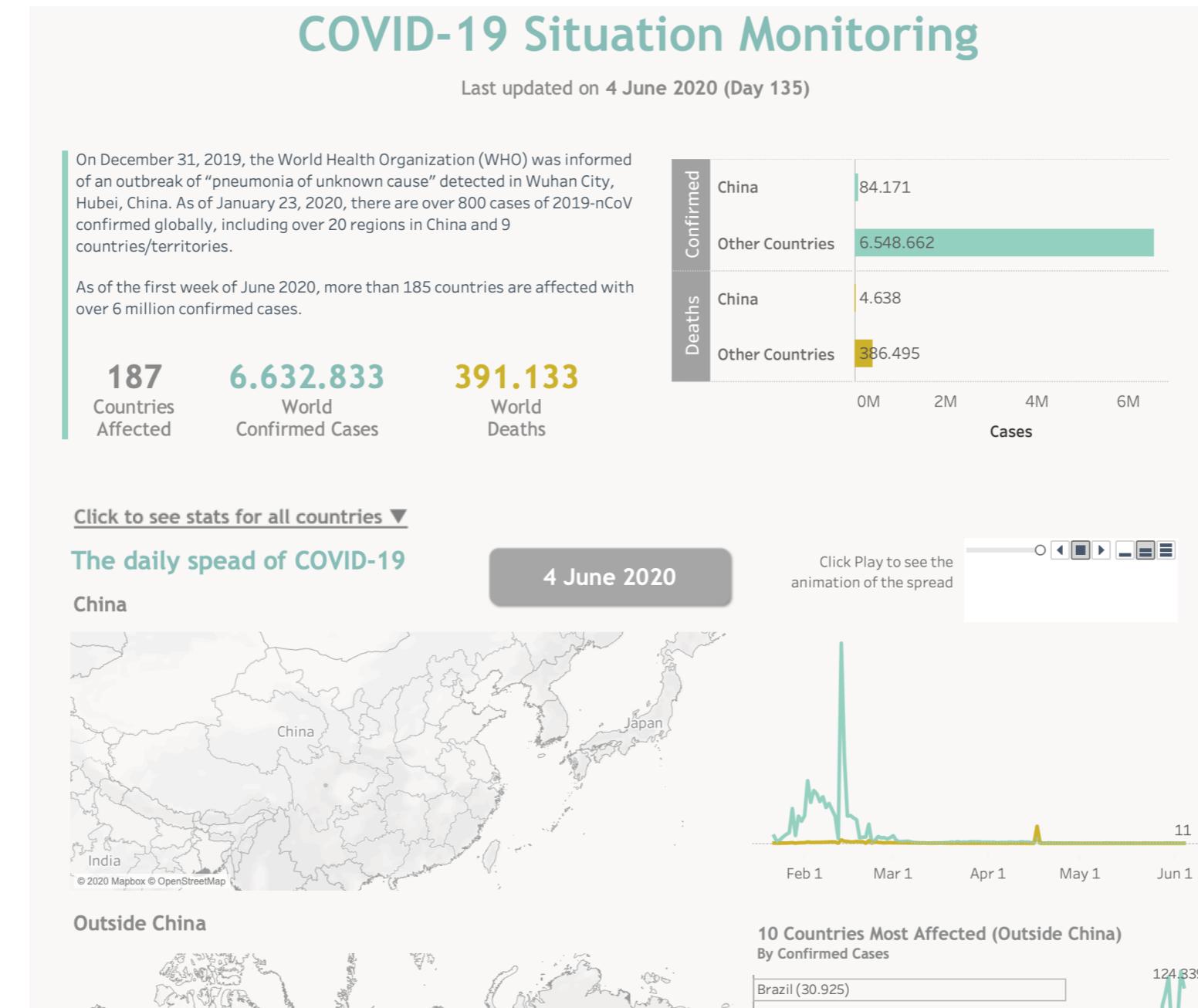
<sup>1</sup> Author: Pradeep Kumar G. Originally published on: Tableau Public

# Why use Tableau - Competitive analysis



<sup>1</sup> Author: Daniel Ling. Originally published on: Tableau Public.

# Why use Tableau - Tracking outbreaks



<sup>1</sup> Author: Thi Ho. Originally published on: Tableau Public

# Who uses Tableau

## Roles

- Data analyst
- Business analyst
- Quantitative analyst

# Who uses Tableau

LinkedIn

The Cisco logo consists of a series of blue vertical bars of varying heights followed by the word "CISCO" in a bold, blue, sans-serif font.The Adobe logo features a red stylized 'A' icon followed by the word "Adobe" in a large, black, sans-serif font.

Walmart



tripadvisor

<sup>1</sup> <https://enlyft.com/tech/products/tableau>

# Tableau versions

## Tableau Public

- Free
- Create beautiful visualizations
- Only CSV, Excel and text files
- Save online
- 15 millions rows of data
- Public reports

## Tableau Desktop

- Paid
- Create beautiful visualizations
- All listed data sources
- Save locally
- Unlimited rows of data

# **Let's practice!**

## **INTRODUCTION TO TABLEAU**

# Connecting to data

INTRODUCTION TO TABLEAU



**Hadrien Lacroix**

Content Developer at DataCamp

# **Let's practice!**

## **INTRODUCTION TO TABLEAU**

# Navigating Tableau

## INTRODUCTION TO TABLEAU



**Hadrien Lacroix**

Content Developer at DataCamp

The screenshot shows the Tableau desktop application interface. At the top, there's a toolbar with various icons for navigation, zooming, and filtering. Below the toolbar, the top navigation bar includes 'Data' (selected), 'Analytics' (dropdown), 'Pages' (with a single item 'san\_francisco'), 'Columns' (empty), 'Rows' (empty), and a 'Standard' dropdown. On the far right of the top bar is a 'Show Me' button.

The left side of the interface features a 'Tables' shelf containing a list of data fields from the 'san\_francisco' data source. The fields listed are:

- # 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*

Below the tables shelf is a 'Filters' shelf which is currently empty. To the right of these shelves is the main workspace titled 'Sheet 1'. The workspace has three empty drop zones labeled 'Drop field here' in each row. On the far left of the workspace, there's a vertical text input field with placeholder text 'Drop field here'.

At the bottom of the workspace, there's a navigation bar with tabs for 'Data Source' (selected), 'Sheet 1' (active), and other sheet icons. The bottom right corner of the workspace contains a small preview of the data source.

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 is selected, displaying the "san\_francisco" data source. Below it, the "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 contains three blank rectangular drop zones labeled "Drop field here". To the right of these zones is the "Marks" shelf, which is currently set to "Automatic" and offers options for Color, Size, Text, Detail, and Tooltip.

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 "san\_francisco" selected under Data. A search bar and a filter section are also present. The main workspace is titled "Sheet 1" and features three large, empty rectangular areas labeled "Drop field here". To the left of these areas is the "Marks" shelf, which is currently set to "Automatic" and offers options for Color, Size, Text, Detail, and Tooltip. Above the Marks shelf are the "Pages", "Columns", and "Rows" shelves, all currently empty. The bottom navigation bar includes tabs for "Data Source" and "Sheet 1", along with other standard window controls.

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

Drop field here

Marks

Automatic

Color

Size

Text

Detail

Tooltip

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 various data fields. The "Reviews per Month" field is currently selected and highlighted with a blue border. The Marks shelf, located below the Data pane, shows options for "Automatic" marks (Color, Size, Text) and specific detail and tooltip controls. The main workspace, titled "Sheet 1", features three empty drop zones labeled "Drop field here" in each row. 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" theme switch. The left sidebar contains the "Data" and "Analytics" tabs, with "san\_francisco" selected under Data. A search bar and a filter section are also present. The main workspace is titled "Sheet 1" and features three empty columns labeled "Drop field here". The left pane lists various data fields categorized under "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

The "Marks" shelf on the right side of the workspace is set to "Automatic" and includes options for Color, Size, Text, Detail, and Tooltip.

At the bottom, the ribbon shows "Data Source" and "Sheet 1" tabs, along with other navigation icons.

The screenshot shows the Tableau desktop application interface. The top navigation bar includes icons for file operations, a search bar, and a "Standard" view dropdown. The left sidebar has tabs for "Data" and "Analytics", with "Data" selected. Under "Data", there is a section for "san\_francisco" containing a "Search" field and a "Tables" list. The "Tables" list is expanded, showing 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. The "Measure Names" field is currently selected and highlighted with a blue border. The main workspace is titled "Sheet 1". It features four large, empty rectangular areas labeled "Drop field here" in each corner. To the right of these drop zones is a "Marks" pane with a dropdown menu set to "Automatic" and four buttons: 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. The left sidebar contains the "Data" and "Analytics" tabs, with "san\_francisco" selected under Data. A search bar and a filter dropdown are also present. The main workspace is titled "Sheet 1" and features three empty drop zones labeled "Drop field here". The bottom navigation bar includes "Data Source", "Sheet 1", and other sheet tabs.

**Data**   **Analytics**

san\_francisco

Search

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

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

# Segmenting with dimensions

- Dimensions and measures affect visualizations differently:
  - Dimensions are used to **segment** data
  - Measures can be aggregated
- **Segmenting** = grouping similar data together
- For example: price per neighborhood, days occupied by room type

The screenshot shows the Tableau desktop interface with the following details:

- Top Bar:** Includes icons for file operations (New, Open, Save, etc.), zoom, and standard view.
- Data Tab:** Selected tab, showing a connection named "san\_francisco".
- Search Bar:** Contains a search input and a refresh icon.
- Tables Panel:** Lists data items:
  - # Id
  - Abc Neighbourhood
  - # Reviews per Month (highlighted with a green border)
  - 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 Context Menu:** A context menu is open for the "Reviews per Month" item, with the "Convert to Measure" option highlighted in blue.
  - Add to Sheet
  - Duplicate
  - Rename
  - Hide
  - Create ▾
  - Convert to Discrete
  - Convert to Measure (highlighted)
  - Change Data Type ▾
  - Geographic Role ▾
  - Default Properties ▾
  - Group by ▾
  - Folders ▾
  - Hierarchy ▾
  - Replace References...
  - Describe...
- Sheet 1 View:** An empty sheet titled "Sheet 1" with two "Drop field here" placeholder areas.
- Bottom Navigation:** Includes tabs for "Data Source" and "Sheet 1", along with other standard navigation icons.

The screenshot shows the Tableau desktop interface with the following details:

- Top Bar:** Includes icons for file operations (New, Open, Save, etc.), zoom, and standard view.
- Data Tab:** Selected tab, showing a connection named "san\_francisco".
- Search Bar:** Contains a search input and a refresh icon.
- Tables Panel:** Lists data fields:
  - # Id
  - Abc Neighbourhood
  - # Reviews per Month (highlighted with a green border)
  - 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 Context Menu:** A context menu is open for the "Reviews per Month" measure, with the "Convert to Discrete" option highlighted.
  - Add to Sheet
  - Duplicate
  - Rename
  - Hide
  - Create ▾
  - Convert to Discrete
  - Convert to Measure
  - Change Data Type ▾
  - Geographic Role ▾
  - Default Properties ▾
  - Group by ▾
  - Folders ▾
  - Hierarchy ▾
  - Replace References...
  - Describe...
- Sheet 1 View:** An empty sheet titled "Sheet 1" with three placeholder drop zones labeled "Drop field here".
- Bottom Navigation:** Includes tabs for "Data Source" and "Sheet 1", along with other standard navigation icons.

The screenshot shows the Tableau Data Prep interface. At the top, there's a toolbar with icons for file operations, data import/export, and standard settings. Below the toolbar, the main workspace is divided into several sections:

- Data:** A sidebar on the left containing a search bar and a list of tables from the current project: "san\_francisco".
- Analytics:** A dropdown menu in the top right corner.
- Pages:** A section where you can manage different pages of your analysis.
- Columns:** A section where you can manage columns.
- Rows:** A section where you can manage rows. The field "Neighbourhood" is currently selected and highlighted in blue.
- Filters:** A section where you can apply filters to your data.
- Marks:** A section where you can choose how to represent your data. The "Automatic" option is selected, and other options like "Color", "Size", "Text", "Detail", and "Tooltip" are available.
- Sheet 1:** The main workspace area where you can drag fields to create visualizations. There are three empty drop zones labeled "Drop field here".

At the bottom, there's a navigation bar with tabs for "Data Source" and "Sheet 1", along with other standard browser-style controls.

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", there is a section for the "san\_francisco" data source, which includes a search bar and a list of 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, empty rectangular areas labeled "Drop field here" in each corner. To the left of these areas is a "Marks" shelf with a dropdown menu set to "Automatic" and five options: Color, Size, Text, Detail, and Tooltip.

At the bottom of the interface, there is a navigation bar with tabs for "Data Source" and "Sheet 1", along with other standard navigation 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 lists a single data source named "san\_francisco". The Analytics pane is currently set to "Data". 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 window controls.

The screenshot shows the Tableau desktop application interface. The top navigation bar includes icons for file operations, a search bar, and a 'Standard' view switcher. The left sidebar has tabs for 'Data' and 'Analytics', with 'san\_francisco' selected. A 'Tables' section lists various data fields. The main workspace is titled 'Sheet 1' and features three blank 'Drop field here' placeholder boxes. The 'Rows' shelf at the top is highlighted with a dark blue border. The 'Marks' shelf on the left contains options for 'Automatic' marks (Color, Size, Text) and specific detail (Detail, Tooltip). The bottom navigation bar includes buttons for 'Data Source', 'Sheet 1', and other sheet tabs.

The screenshot shows the Tableau desktop application interface. The top navigation bar includes icons for file operations, a search bar, and a "Standard" view switcher. The left sidebar has tabs for "Data" and "Analytics", with "Data" currently selected. Under "Data", there is a section for "san\_francisco" containing a "Search" field and a "Tables" list. The "Tables" list includes fields like 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 contains three empty columns labeled "Drop field here". On the right side of the workspace, there are sections for "Columns", "Rows", and "Marks". The "Marks" section is set to "Automatic" and offers options for Color, Size, Text, Detail, and Tooltip.

The screenshot shows the Tableau desktop application interface. The top navigation bar includes icons for file operations, a search bar, and a "Show Me" button. The left sidebar contains the "Data" tab selected, showing a project named "san\_francisco" and a list of data 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 columns for dragging fields:

- Top column: "Drop field here"
- Middle column: "Drop field here"
- Bottom column: "Drop field here"

A "Filters" pane is open on the left, showing no filters applied. A "Marks" pane is also open, set to "Automatic" mode, with options for Color, Size, Text, Detail, and Tooltip.

The screenshot shows the Tableau desktop application interface. At the top, there is a toolbar with various icons for navigation and file operations. Below the toolbar, the top navigation bar includes 'Data' (selected), 'Analytics' (dropdown), 'Pages', 'Columns', 'Rows', and a 'Standard' dropdown. On the far right of the top bar is a 'Show Me' icon.

The left side of the interface features a 'Tables' pane containing a list of data fields from a source named 'san\_francisco'. The fields listed include:

- # 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 contains a 'Marks' shelf on the left side, which is currently set to 'Automatic' and displays five options: Color, Size, Text, Detail, and Tooltip. The main area of the workspace is a large grid with three columns and three rows, each labeled 'Drop field here'.

At the bottom of the interface, there is a navigation bar with tabs for 'Data Source' (selected) and 'Sheet 1', along with other icons for saving and publishing.

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" theme switch. The left sidebar contains the "Data" and "Analytics" tabs, with "Data" selected. Under "Data", there is a section for "san\_francisco" containing a "Search" field and a "Tables" list. The "Tables" list includes fields like 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 columns labeled "Drop field here". On the right side of the workspace, there is a "Marks" shelf with options for Color, Size, Text, Detail, and Tooltip, currently set to "Automatic". The bottom navigation bar includes buttons for "Data Source", "Sheet 1", and other sheet navigation.

The screenshot shows the Tableau desktop application interface. The top navigation bar includes icons for file operations, a search bar, and a 'Standard' theme switch. The left sidebar has tabs for 'Data' and 'Analytics', with 'san\_francisco' selected. A 'Tables' section lists various data fields: Id, Neighbourhood, Reviews per Month (highlighted in green), 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' shelf, which is currently open, displays a list of visualization types: Automatic (selected), Bar, Line, Area, Square, Circle, Shape, Text, Map, Pie, Gantt Bar, Polygon, and Density. The main workspace is titled 'Sheet 1' and contains three 'Drop field here' placeholder boxes.

The screenshot shows the Tableau Data Prep interface. At the top, there's a toolbar with various icons for navigation and file operations. Below the toolbar, the left sidebar displays a "Data" tab and an "Analytics" dropdown set to "san\_francisco". A search bar and a "Tables" section follow. The "Tables" section lists several fields: "Id", "Neighbourhood", "Reviews per Month" (which is highlighted with a green background), "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". To the right of the sidebar is the main workspace, titled "Sheet 1". It features a grid for dragging and dropping fields. The first column of the grid has three "Drop field here" labels. The second column has one "Drop field here" label. On the far right of the workspace is a "Marks" panel with options for "Automatic" and "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 browser-style buttons.

# Our business question

**Which neighborhood and room type has the highest price on Airbnb listings?**

# **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**

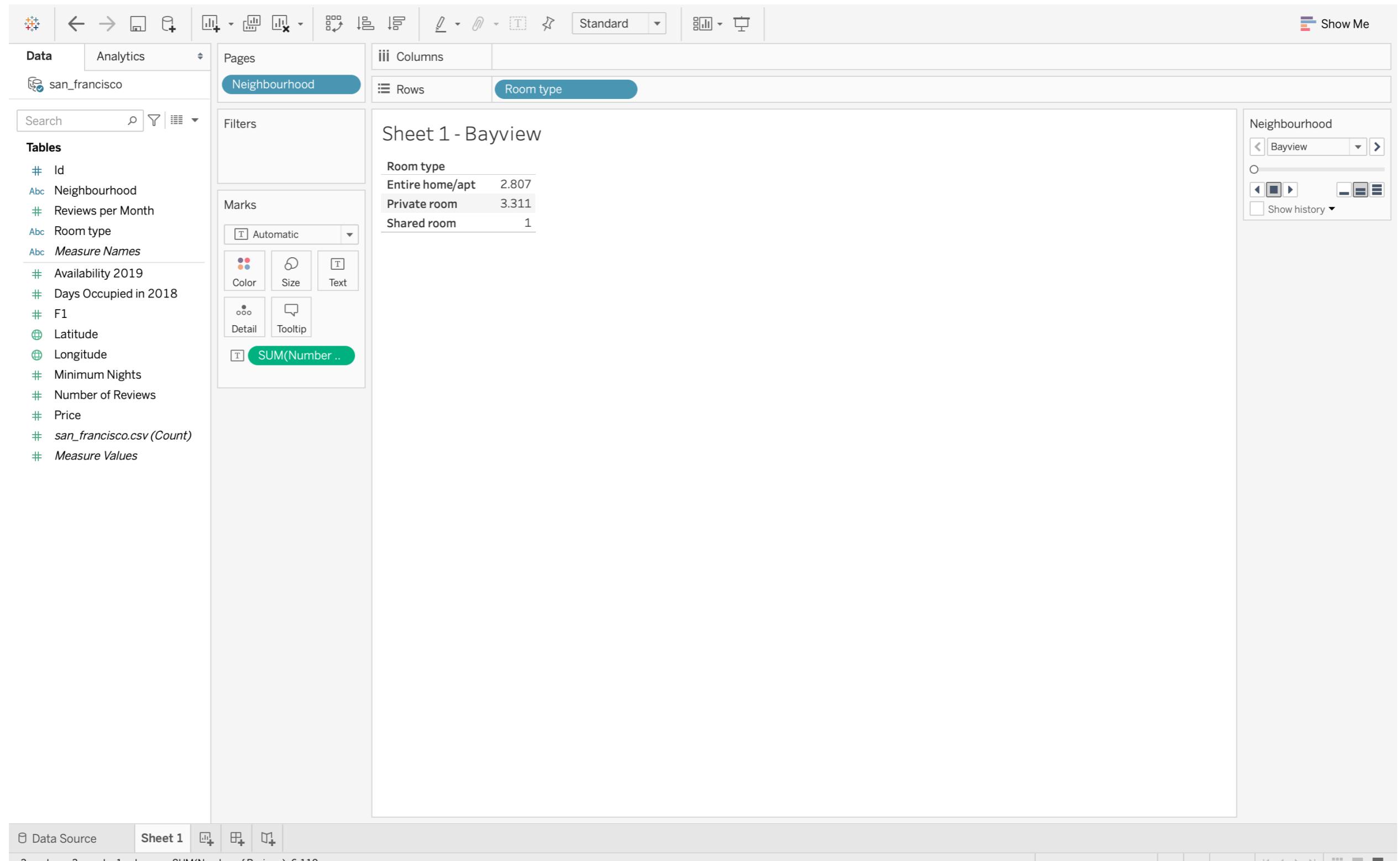
# Your first visualization

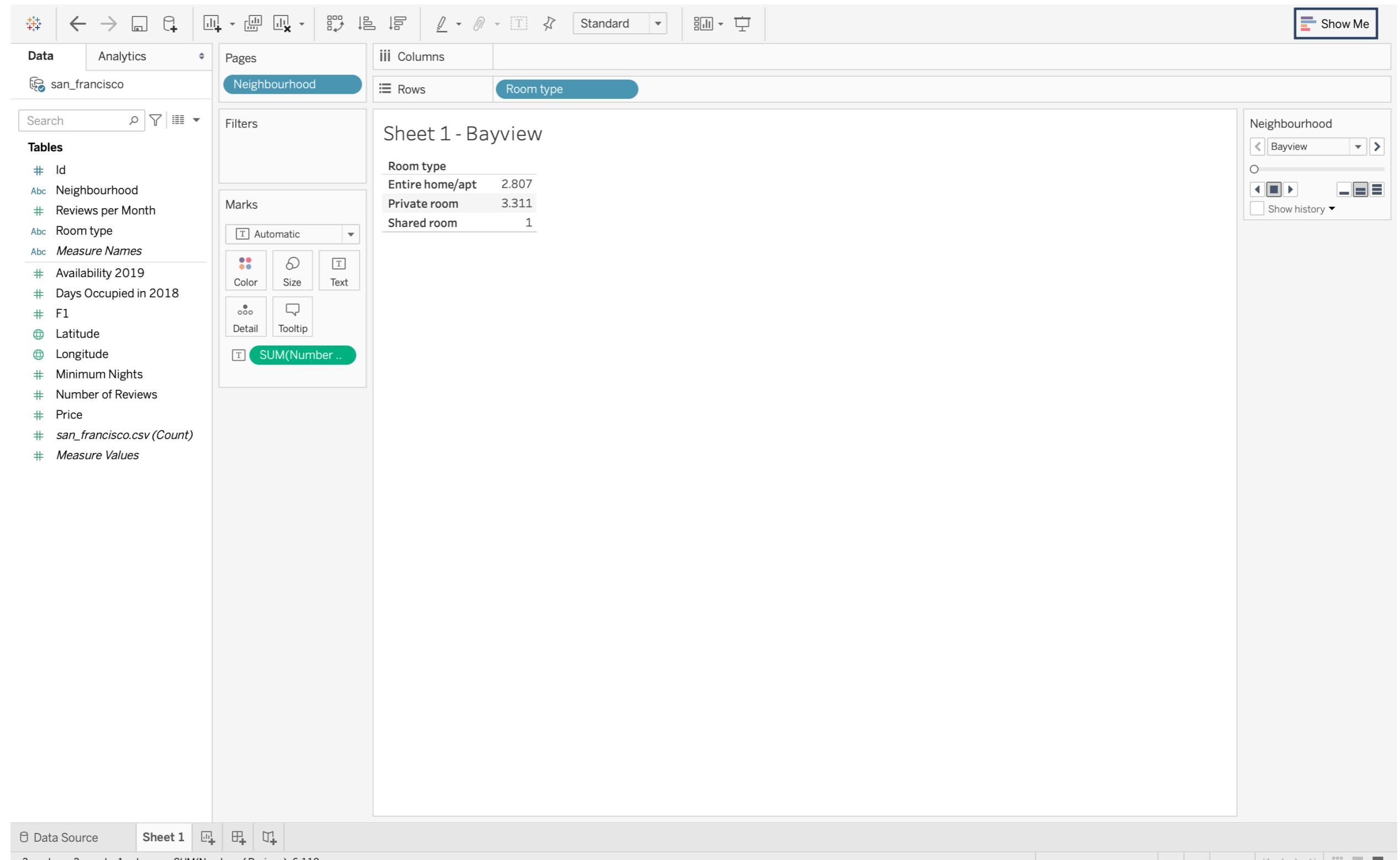
INTRODUCTION TO TABLEAU



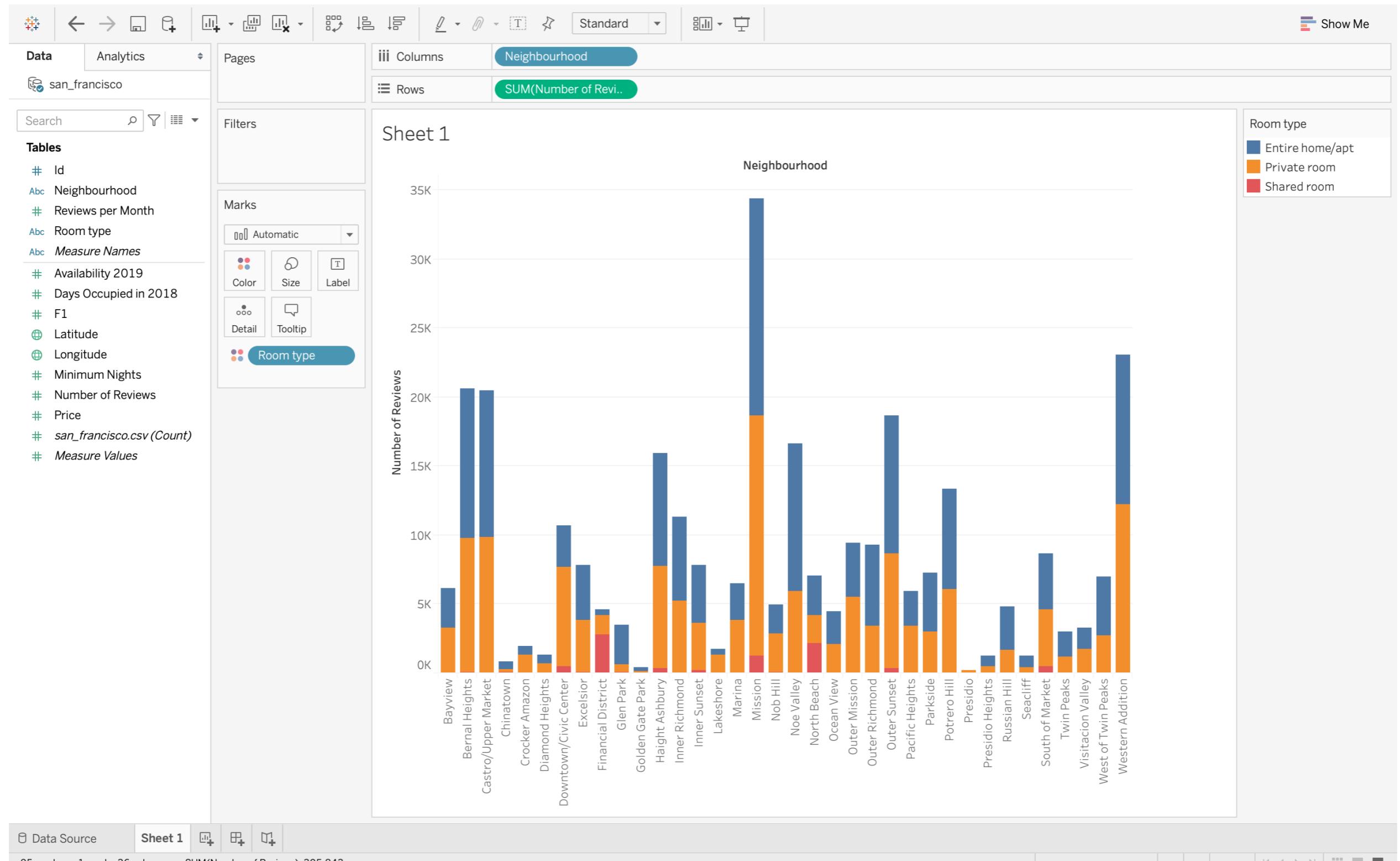
**Hadrien Lacroix**

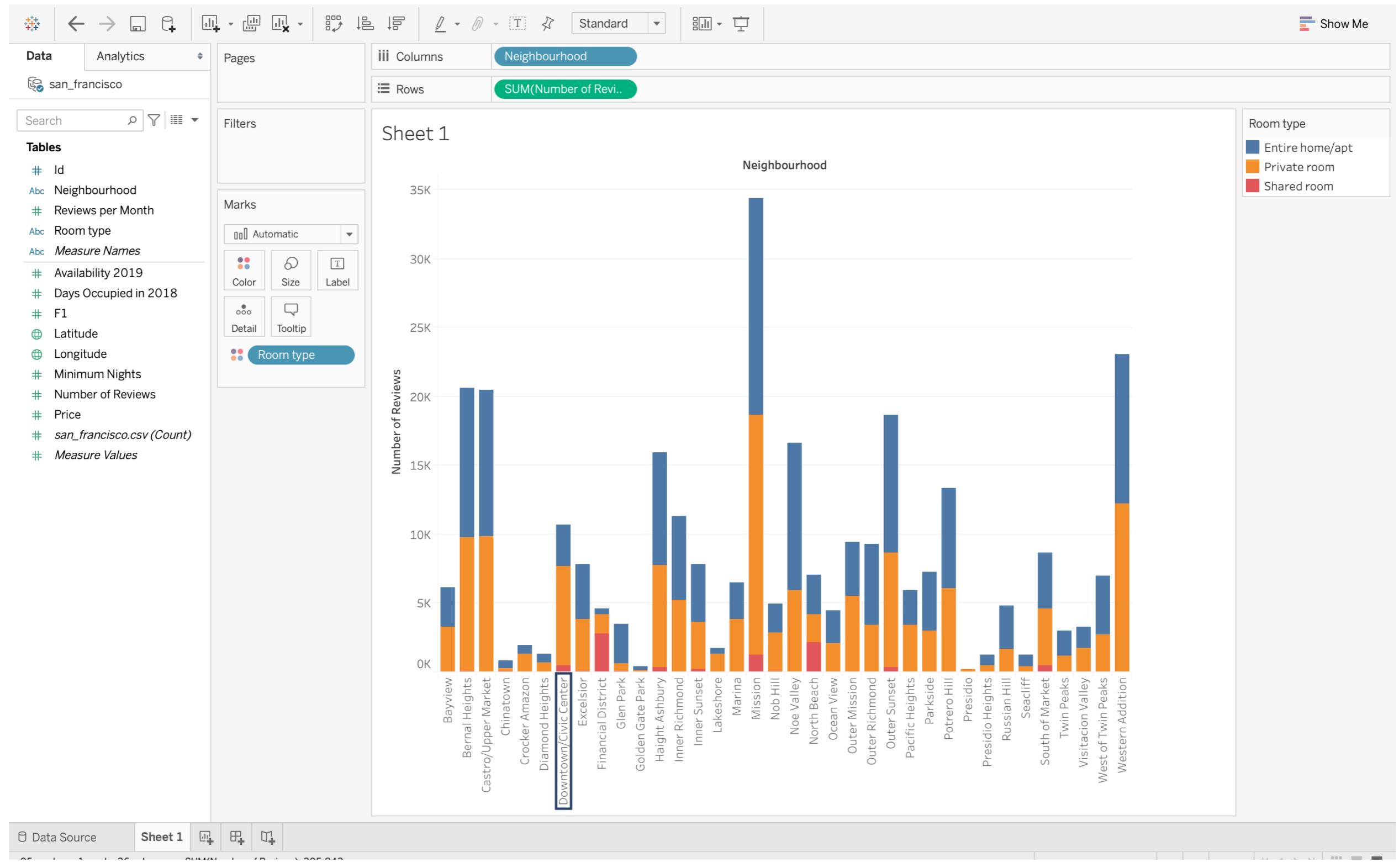
Content Developer at DataCamp

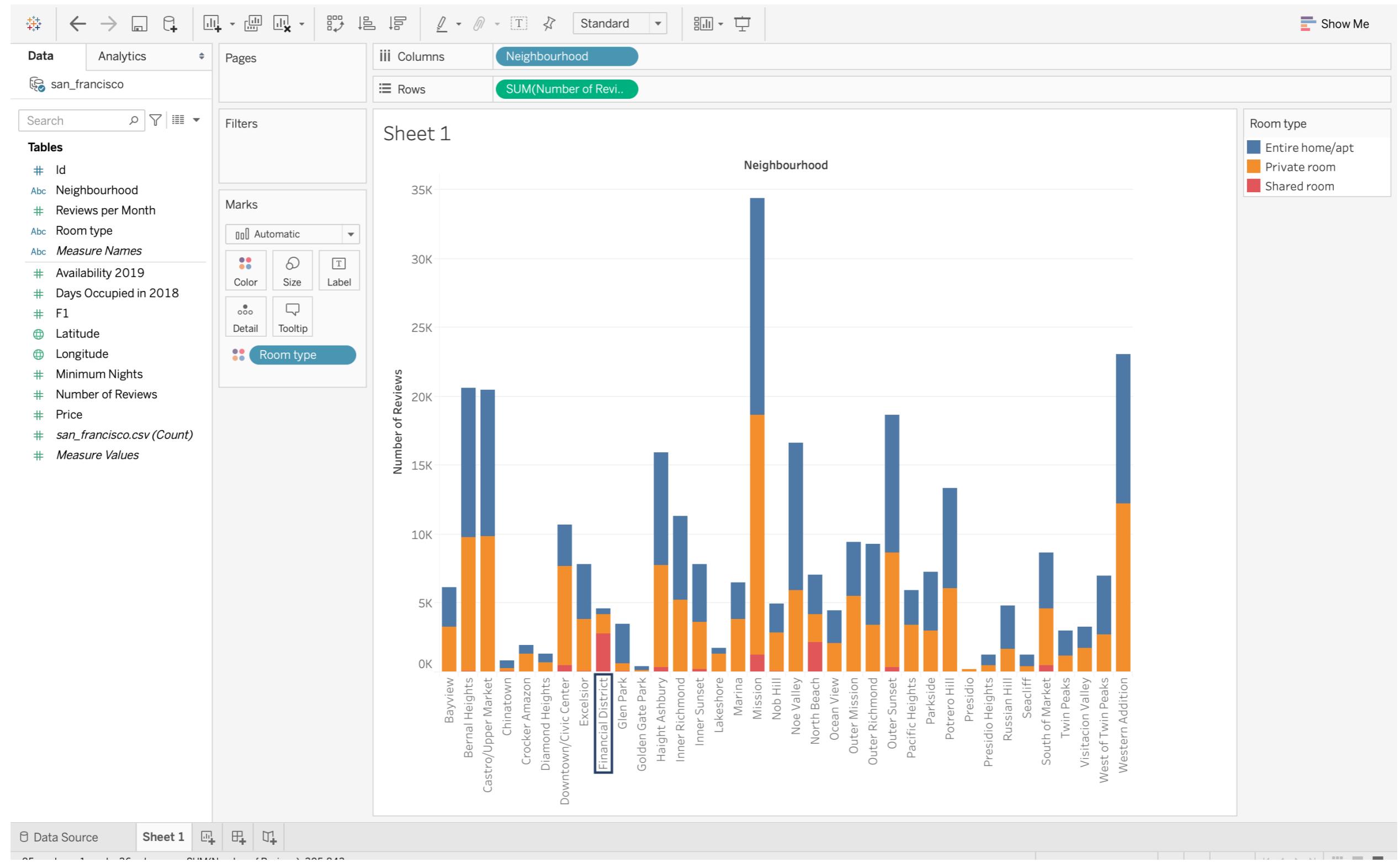


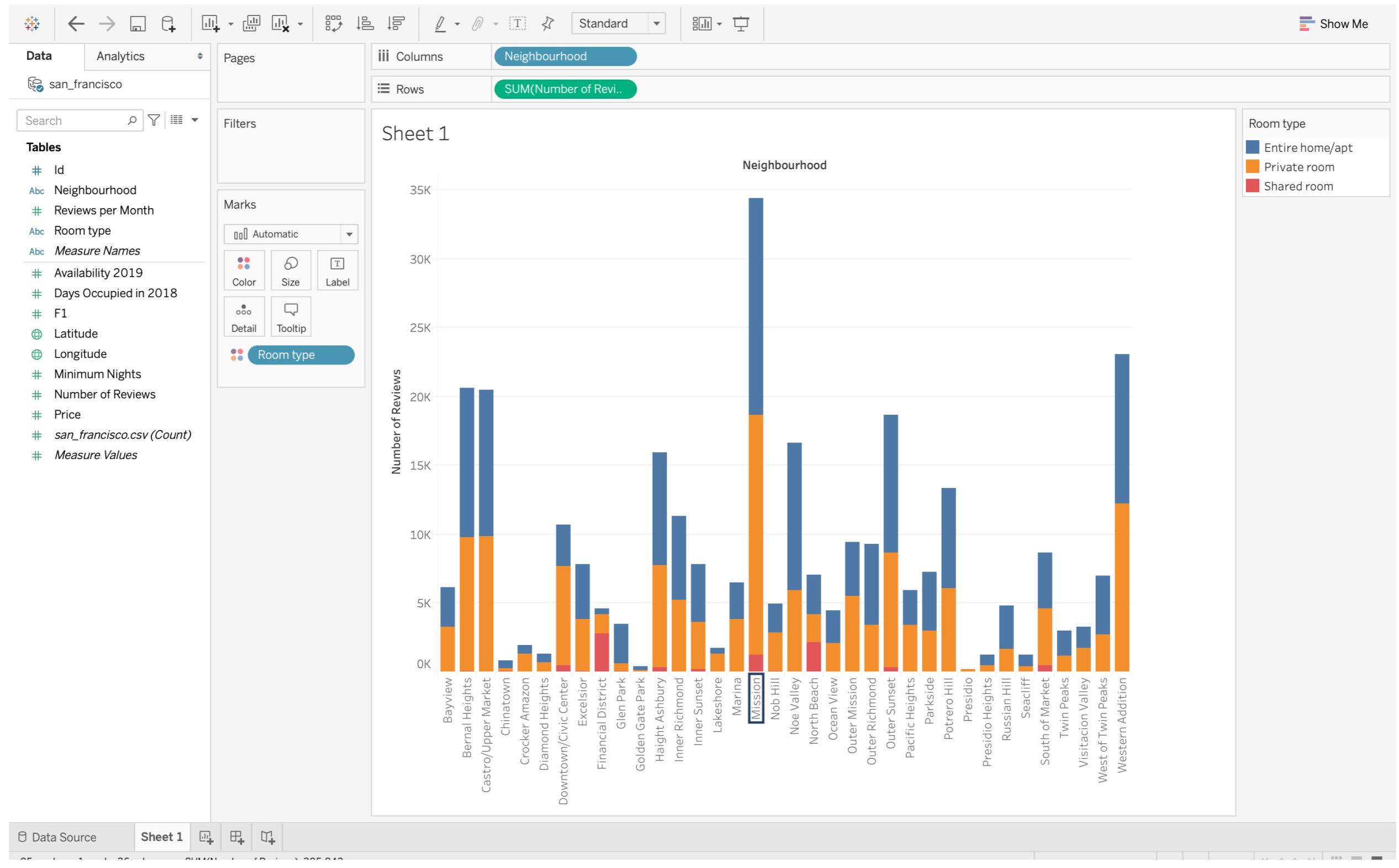












# **Let's practice!**

## **INTRODUCTION TO TABLEAU**

# Building and improving visualizations

INTRODUCTION TO TABLEAU



**Hadrien Lacroix**

Content Developer at DataCamp

# **Let's practice!**

## **INTRODUCTION TO TABLEAU**