

Introduction

INTRODUCTION TO TABLEAU

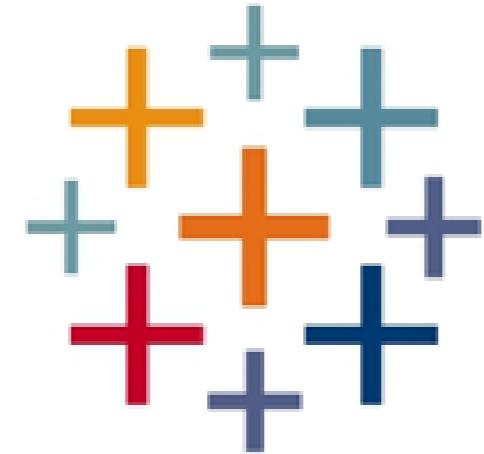


Hadrien Lacroix

Content Developer at DataCamp

What is Tableau

+ a b l e a u



- Visualization tool
- VizQL
- Easy
- Beautiful
- Interactive

Why use Tableau

Traditional photography



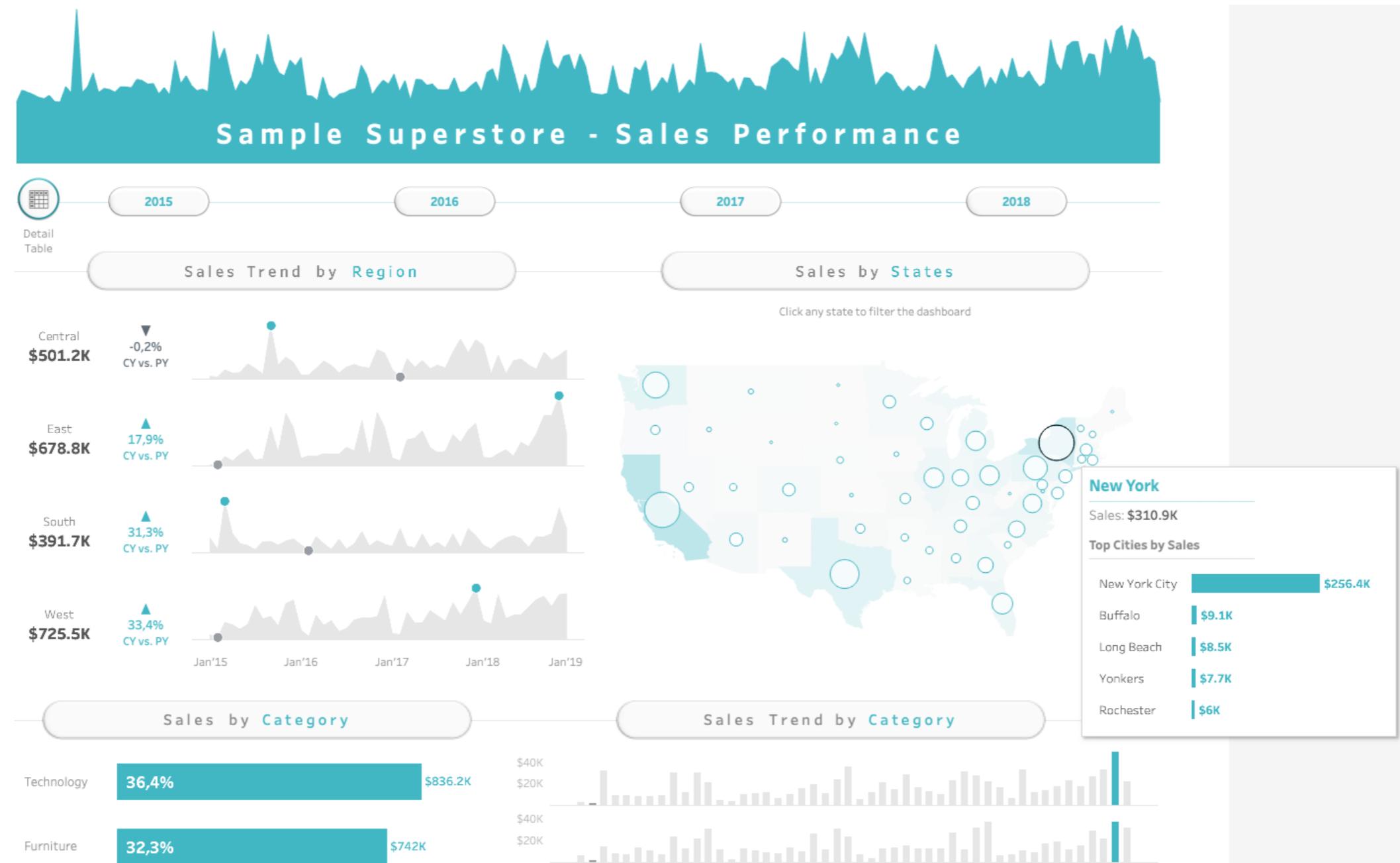
Digital photography



Why use Tableau

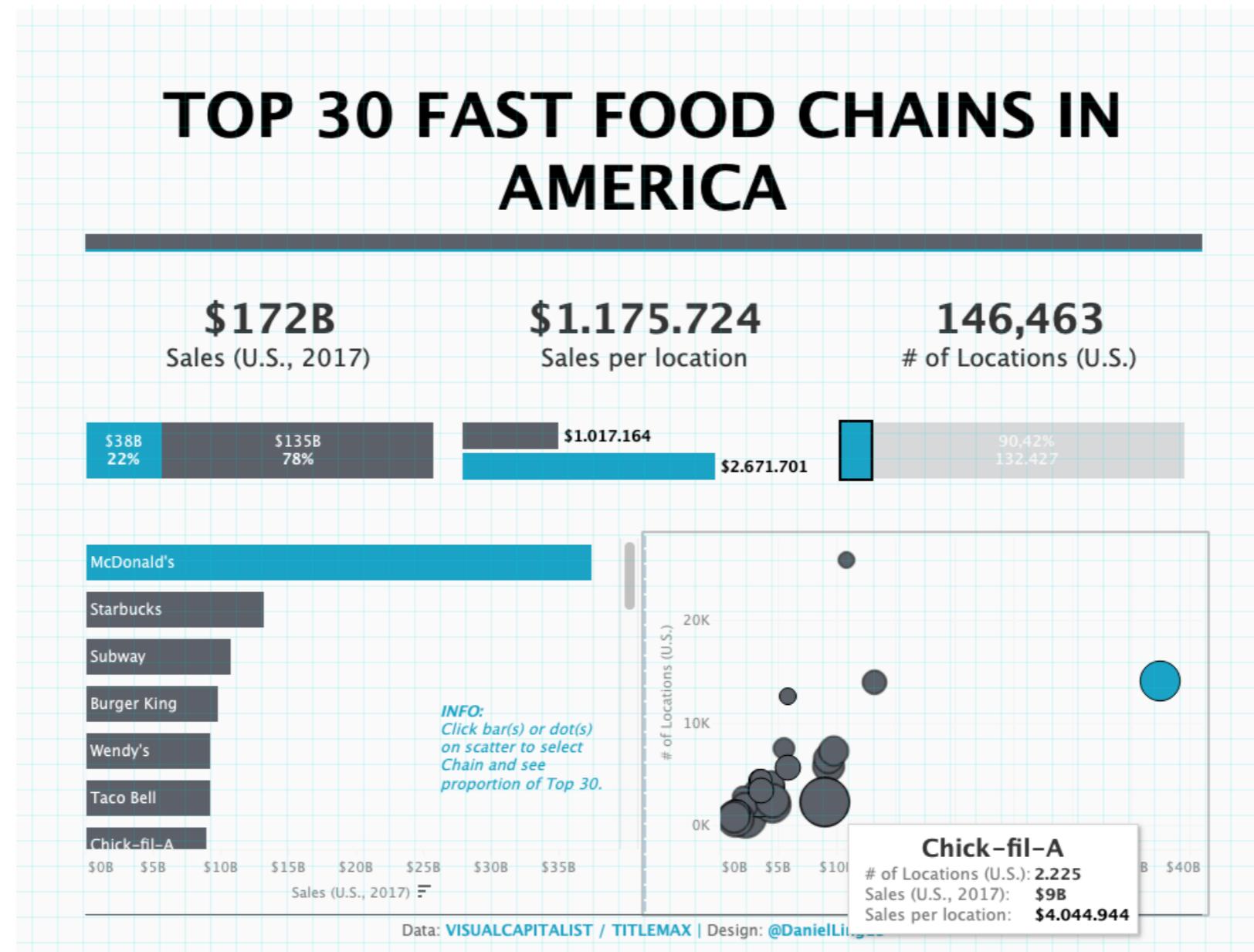
- Accessible...
- ...but complete
- Flexible
- Intuitive
- Quick and robust prototyping
- Frame business questions
- Import and clean data
- Analyze and visualize data
- Drive business decisions
- Present insights

Why use Tableau - Monitoring performance



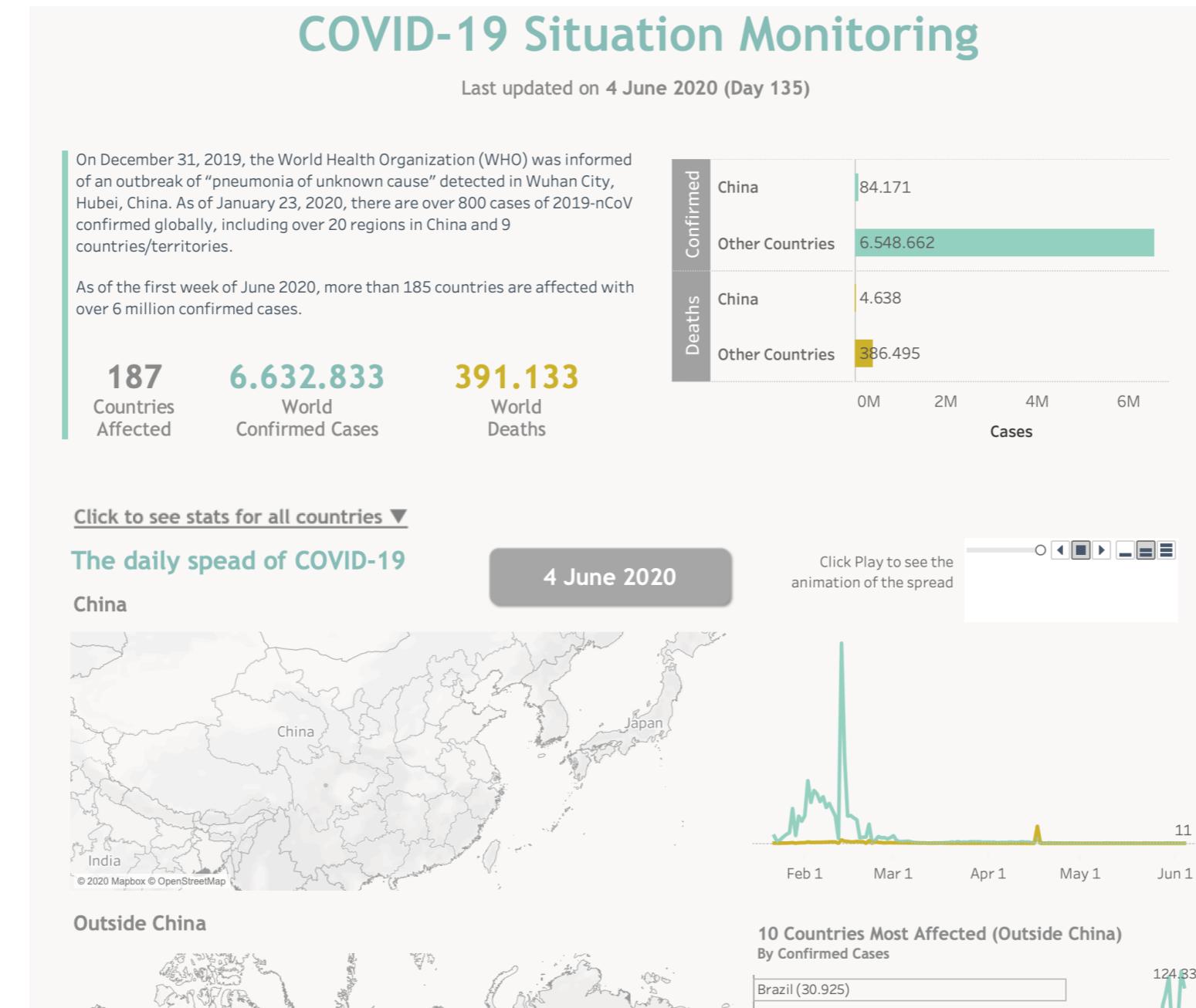
¹ Author: Pradeep Kumar G. Originally published on: Tableau Public

Why use Tableau - Competitive analysis



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

Why use Tableau - Tracking outbreaks



¹ 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.The Walmart logo consists of the word "Walmart" in a large, blue, sans-serif font, accompanied by its signature yellow five-pointed starburst symbol.The Tripadvisor logo consists of the words "trip" in black and "advisor" in green, with a small orange dot above the 'i' in "trip".

¹ <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



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Let's practice!

INTRODUCTION TO TABLEAU

Navigating Tableau

INTRODUCTION TO TABLEAU



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Content Developer at DataCamp

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 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. To the right of the sidebar is the main workspace, which is currently titled "Sheet 1". The workspace features three large, empty rectangular areas labeled "Drop field here" in each corner. On the far left of the workspace, there is a "Marks" shelf with options for Automatic, Color, Size, Text, Detail, and Tooltip. The bottom of the screen shows the standard Windows taskbar.

The screenshot shows the Tableau desktop application interface. The top navigation bar includes icons for file operations, zoom, and standard view. The left sidebar features the 'Data' tab selected, showing a list of data sources: 'san_francisco'. Below this is the 'Tables' section listing various dimensions and measures from the data source. The main workspace is titled 'Sheet 1' and contains three blank rectangular drop zones labeled 'Drop field here' in each column. To the right of these drop zones is the 'Marks' shelf, which is currently set to 'Automatic' and offers options for 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, a search bar, and a "Standard" view dropdown. The left sidebar has tabs for "Data" and "Analytics", with "san_francisco" selected. The "Tables" section lists various 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 a grid with three columns and three rows, each labeled "Drop field here". On the right side of the workspace, there is a "Marks" shelf with the following options:

- Automatic (selected)
- Color
- Size
- Text
- Detail
- Tooltip

At the bottom of the interface, there is a navigation bar with 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 various data fields. The "Reviews per Month" field is currently selected and highlighted with a blue border. The Marks shelf on the right lists "Automatic" as the mark type, with options for Color, Size, Text, Detail, and Tooltip. The main workspace, titled "Sheet 1", features three blank drop zones labeled "Drop field here" in each column.

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

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" theme switch. The left sidebar contains the "Data" and "Analytics" tabs, with "san_francisco" selected under Data. 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 "Filters" section is currently empty. The main workspace, titled "Sheet 1", features three empty data shelves labeled "Drop field here". The bottom navigation bar includes "Data Source", "Sheet 1", and other standard Tableau 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" theme switch. The left sidebar contains the "Data" and "Analytics" tabs, with "san_francisco" selected under Data. A search bar and a "Tables" section are also present. The main workspace is titled "Sheet 1" and features three empty columns 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

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 large, empty rectangular areas labeled "Drop field here". To the left of these areas is the "Marks" shelf, which is set to "Automatic" and includes 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
- # Latitude
- # Longitude
- # Minimum Nights
- # Number of Reviews
- # Price
- # *san_francisco.csv (Count)*
- # Measure Values

Show Me

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:** A blank sheet titled "Sheet 1" with three placeholder areas 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.
- 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 word "Neighbourhood" is highlighted here.
- Filters:** A section where you can manage filters.
- Marks:** A section where you can manage marks. It includes a dropdown for "Automatic" and buttons for "Color", "Size", "Text", "Detail", and "Tooltip".
- Sheet 1:** The main workspace area with three empty drop zones labeled "Drop field here".
- Bottom Navigation:** Includes tabs for "Data Source" and "Sheet 1", along with other 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. 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 a grid with four quadrants, each labeled "Drop field here". To the left of the grid is the "Marks" shelf, which is currently set to "Automatic" and displays 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 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, a search bar, and a 'Standard' view mode. The left sidebar displays a 'Data' tab and an 'Analytics' dropdown, with a project named 'san_francisco' selected. 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 'Drop field here' placeholder boxes. The top right box is labeled 'Drop field here'. The bottom right box is also labeled 'Drop field here'. The bottom left box is labeled 'Drop field here'. The 'Rows' shelf at the top of the workspace is highlighted with a dark blue border. The 'Marks' shelf on the left contains options for 'Automatic' marks (Color, Size, Text) and 'Detail' marks (Detail, Tooltip). The bottom navigation bar includes tabs for 'Data Source' and 'Sheet 1', along with other standard interface elements.

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 features the "Data" and "Analytics" tabs, with "Data" selected. Below this is a search bar and a "Tables" section listing various data fields. A "san_francisco" data source is currently selected. 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 a "Marks" shelf with options for Color, Size, Text, Detail, and 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 (New, Open, Save, etc.), a search bar, and a "Show Me" button. The left sidebar contains the "Data" tab selected, showing a single data source named "san_francisco". Below the data source are sections for "Tables" and "Measures". The "Tables" section lists various 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 "Measures" section is currently empty. The main workspace is titled "Sheet 1" and features three empty columns for dragging and dropping fields. The top column has a placeholder "Drop field here". The bottom-left column has a placeholder "Drop field here". The bottom-right column has a placeholder "Drop field here". To the left of the workspace, there are three panes: "Pages" (with one page listed), "Columns" (with one column listed), and "Rows" (empty). The "Filters" pane is also visible on the left, containing a list of filters. The "Marks" pane on the right shows options for Automatic, 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:

- # 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 three large, empty rectangular areas labeled 'Drop field here' in each corner. To the left of these areas is a 'Marks' shelf panel, which is currently set to 'Automatic' and displays five options: Color, Size, Text, Detail, and Tooltip. The entire workspace has a light gray background.

At the bottom of the screen, there is a navigation bar with tabs for 'Data Source' (selected) and 'Sheet 1', along with other icons for navigating between sheets and saving workbooks.

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 drop zones 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 tabs.

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

- Data:** A sidebar containing a search bar and a list of tables and measures. The table "Reviews per Month" is currently selected.
- Analytics:** A section for defining columns and rows.
- Pages:** A section for defining columns and rows.
- Filters:** A section for defining filters.
- Marks:** A dropdown menu showing various visualization types: Automatic, Bar, Line, Area, Square, Circle, Shape, Text, Map, Pie, Gantt Bar, Polygon, and Density. The "Automatic" option is selected.
- Sheet 1:** The main workspace area with 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 icons.

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 menu. Under "Data", there's a section for "san_francisco" with a "Search" bar and a "Tables" list. The "Tables" list includes fields like "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, the main workspace is titled "Sheet 1". It features a grid with three columns and three rows, each labeled "Drop field here". On the far left of the workspace, there's a "Filters" panel and a "Marks" panel. The "Marks" panel is set to "Automatic" and offers options for "Color", "Size", "Text", "Detail", and "Tooltip". At the bottom of the workspace, there are tabs for "Data Source" and "Sheet 1", along with other navigation icons.

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

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Let's practice!

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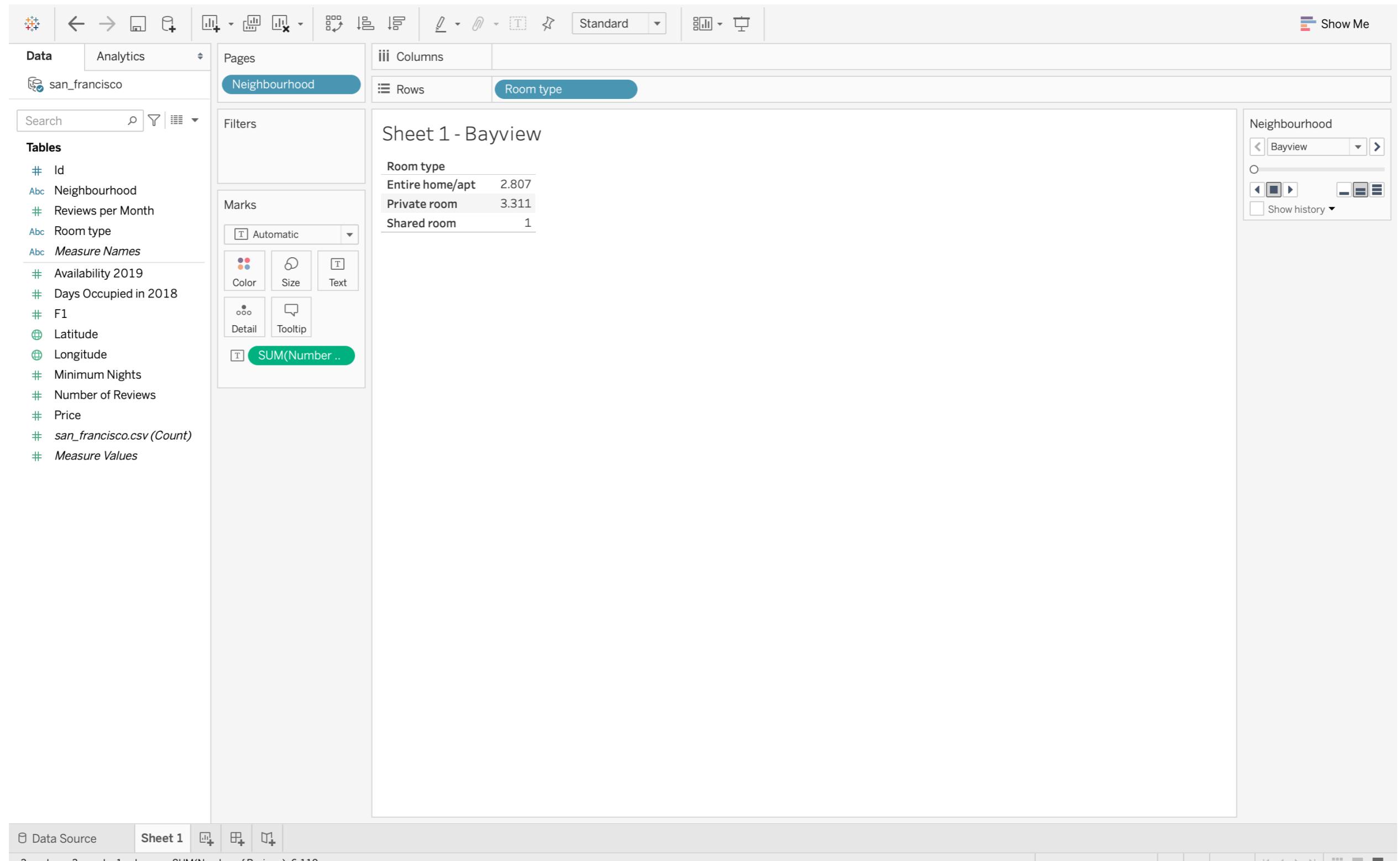
Your first visualization

INTRODUCTION TO TABLEAU



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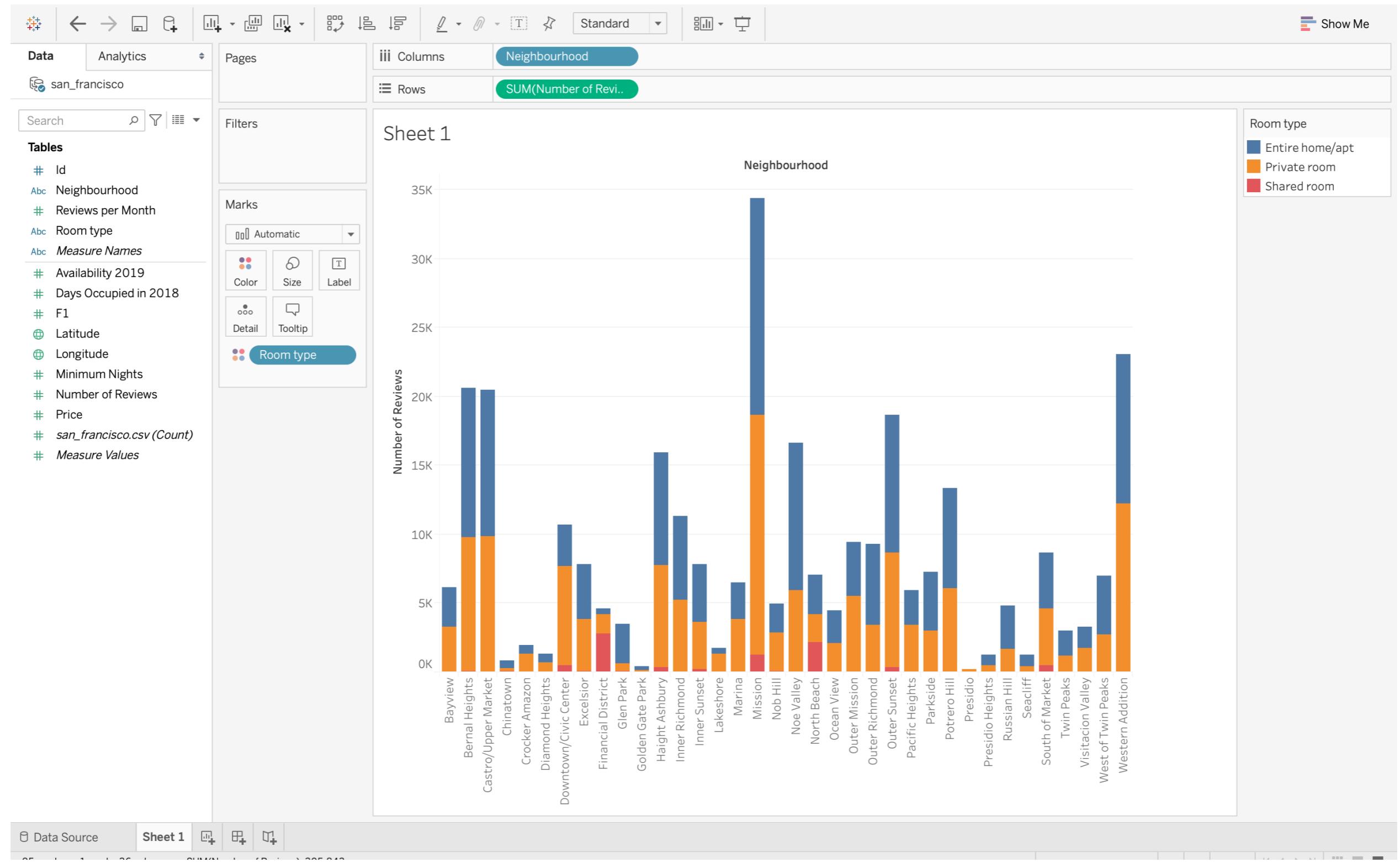


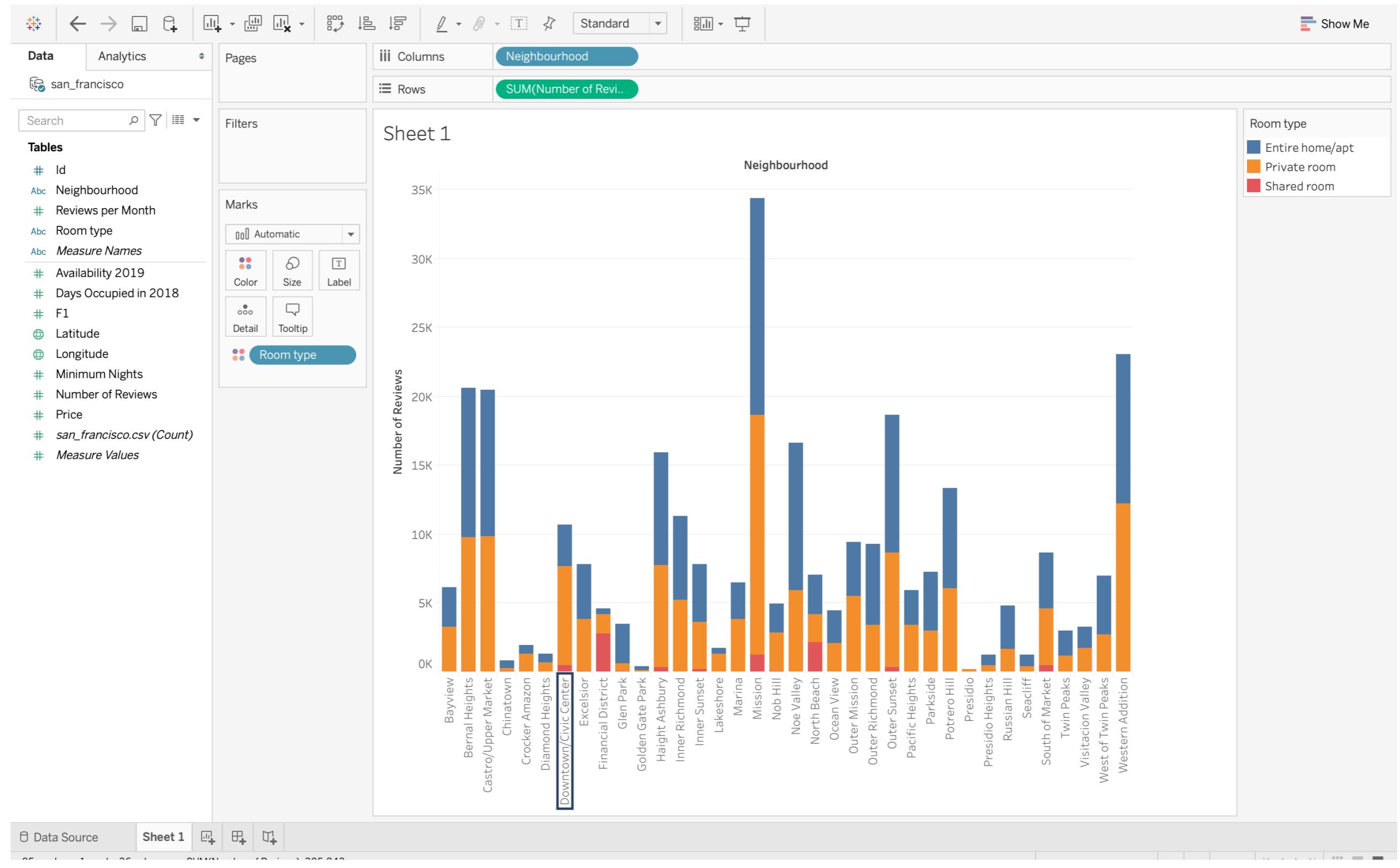
The screenshot shows the Tableau Data Prep interface with the following components:

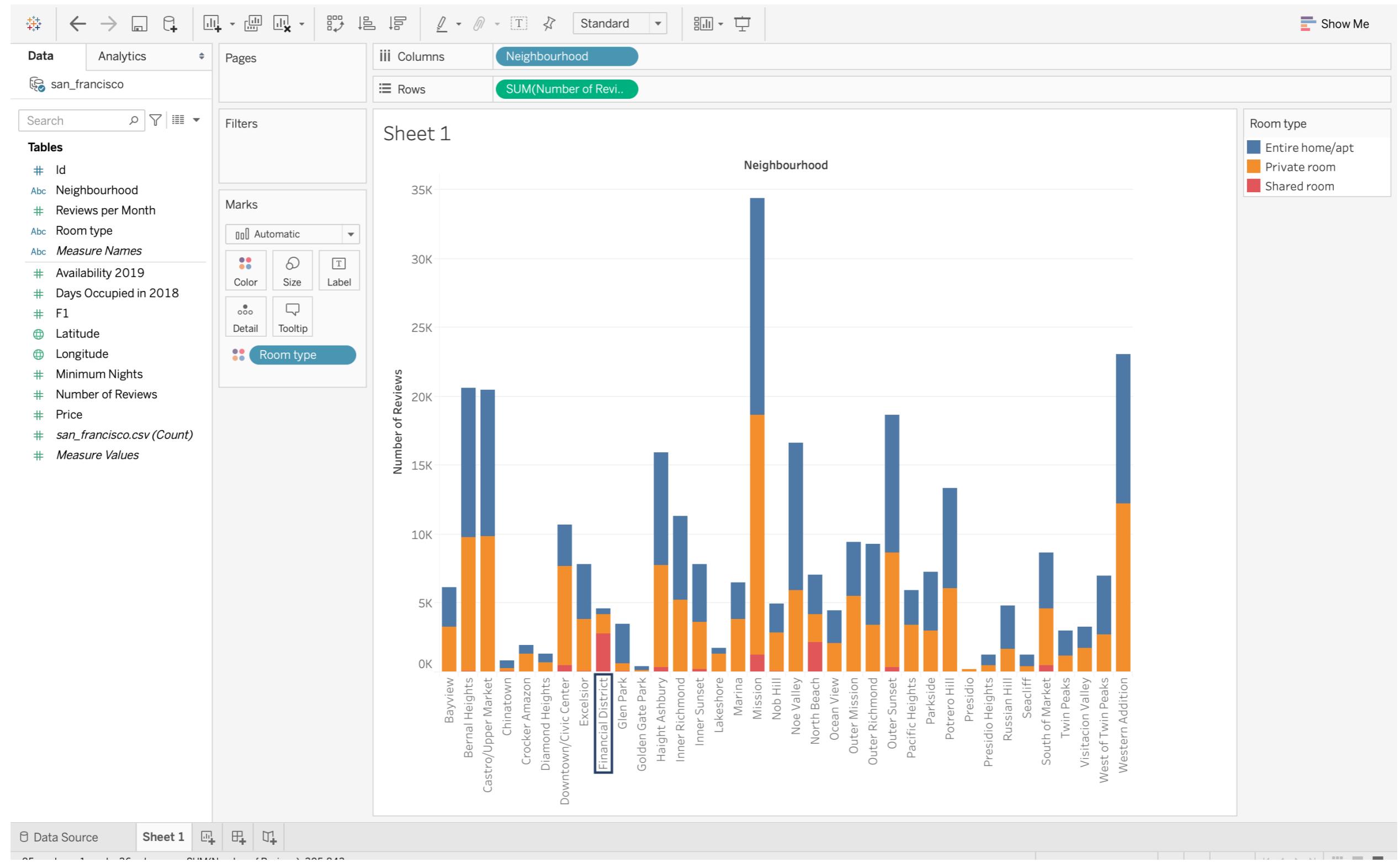
- Top Bar:** Includes icons for file operations (New, Open, Save, etc.), undo/redo, and various settings.
- Data Tab:** Selected tab, showing the dataset `san_francisco`.
- Analytics Tab:** Available tab.
- Search Bar:** Contains the dataset name `san_francisco`.
- Tables Panel:** Lists available columns:
 - # 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
- Sheet 1 - Bayview:** The main workspace showing a summary of room types in Bayview.

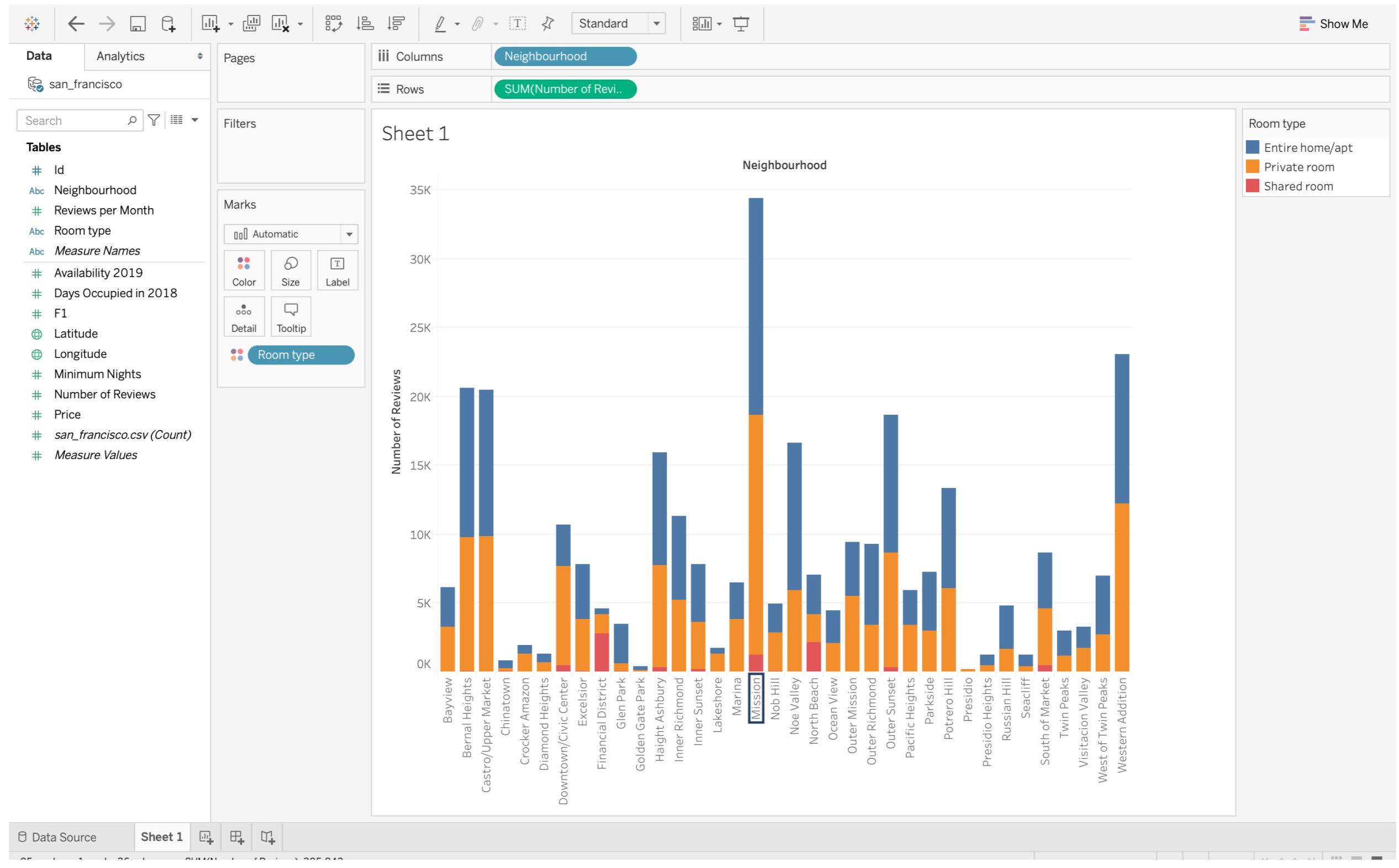
Room type	Value
Entire home/apt	2.807
Private room	3.311
Shared room	1
- Filters Panel:** Shows the current filter applied: `Neighbourhood` set to `Bayview`.
- Marks Panel:** Displays the marks configuration, currently set to `Automatic`, with options for Color, Size, Text, Detail, and Tooltip.
- Bottom Navigation:** Includes tabs for `Data Source` and `Sheet 1`, along with other standard navigation icons.











Let's practice!

INTRODUCTION TO TABLEAU

Building and improving visualizations

INTRODUCTION TO TABLEAU



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