Heart Disease Analysis

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INTRODUCTION

HEART DISEASE ANALYSIS

Heart disease remains one of the leading causes of mortality worldwide, and its impact continues to grow due to lifestyle changes, poor dietary habits, and lack of physical activity. Despite advances in medicine, prevention and early detection remain critical in reducing the risk of severe outcomes. However, analyzing large-scale health data related to heart disease—such as patient demographics, medical history, lifestyle choices, and clinical indicators—requires advanced tools for extracting insights.

In this project, we aim to use Tableau as a powerful data visualization and business intelligence tool to analyze heart disease data. The goal is to transform raw data into meaningful dashboards, highlight key risk factors, and identify correlations that can support better decision-making for healthcare providers, policymakers, and individuals. By leveraging Tableau's interactive visualizations, the project seeks to uncover hidden trends, compare patient groups, and tell stories through data that aid in preventive care and awareness.

SCENARIO 1

Dr. Sharma is a senior cardiologist working at a metropolitan hospital. She wants to understand which lifestyle factors contribute most to the increase in heart disease cases among middle-aged patients. Using Tableau dashboards, she can analyze patient data segmented by age, gender, BMI, cholesterol levels, and smoking habits. This helps her identify high-risk groups and design targeted awareness campaigns, such as advising patients on weight management and smoking cessation programs.

SCENARIO 2

Ramesh works with a government health department and is tasked with developing preventive health policies. He uses Tableau dashboards to study trends in heart disease prevalence across different regions, comparing rural and urban populations. By analyzing correlations between sedentary lifestyle indicators and disease rates, he can recommend policies such as fitness programs in workplaces, stricter tobacco regulations, and subsidies for healthier food options. Tableau helps him present these findings in interactive dashboards for decision-makers.

SCENARIO 3

Anita, a 45-year-old professional with a family history of heart disease, wants to monitor her health risks. With simplified Tableau dashboards provided by her healthcare provider, she can visualize her risk factors such as cholesterol levels, blood pressure, and lifestyle habits compared to healthy benchmarks. The dashboard highlights actionable steps like increasing physical activity or reducing fat intake. This empowers Anita to make informed decisions about her lifestyle and proactively reduce her risk of developing heart disease.

PROJECT FLOW

To accomplish this, we have to complete all the activities listed below,

- Define Problem / Problem Understanding
    - Specify the business problem
    - Business requirements
    - Literature Survey
    - Social or Business Impact.
- Data Collection & Extraction from Database
    - Collect the dataset,
    - Storing Data in DB
    - Perform SQL Operations
    - Connect DB with Tableau
- Data Preparation
- Prepare the Data for Visualization
- Data Visualizations
    - No of Unique Visualizations
- Dashboard
    - Responsive and Design of Dashboard
- Story
    - No of Scenes of Story
- Performance Testing
    - Amount of Data Rendered to DB ‘
    - Utilization of Data Filters
    - No of Calculation Fields
    - No of Visualizations/ Graphs
- Web Integration
    - Dashboard and Story embed with UI With Flask
- Project Demonstration & Documentation
    - Record explanation Video for project end to end solution
    - Project Documentation-Step by step project development procedure

MILESTONE 1 : DATA COLLECTION & EXTRACTION FROM DATABASE

Data collection is the process of gathering and measuring information on variables of interest, in an established systematic fashion that enables one to answer stated research questions, test hypotheses, and evaluate outcomes and generate insights from the data.

ACTIVITY 1 : DOWNLOADING THE DATASET

Acquire the finalized dataset required for the Tableau project, ensuring it is clean, relevant, and aligned with the defined problem. Validate data integrity and readiness for analysis and visualization tasks.

Link: https://drive.google.com/file/d/190Qmq27LeZZ_nWricP3Obl7ys_5otEsp/view

ACTIVITY 2 : STORING DATA IN DB & PERFORM SQL OPERATIONS

Store the collected dataset in a structured database system. Use SQL operations to clean, filter, transform, and prepare the data for seamless integration with Tableau for visualization and analysis.

ACTIVITY 3 : CONNECT DB WITH TABLEAU

Establish a secure and reliable connection between the database and Tableau. Ensure real-time or scheduled data access for creating interactive dashboards and performing dynamic data analysis within the Tableau environment.

MILESTONE 2 : DATA PREPARATION

Clean, transform, and organize the connected data to ensure consistency and accuracy. Create calculated fields, handle null values, and structure the data appropriately for effective visualization and insightful analysis in Tableau.

ACTIVITY 1 : PREPARE THE DATA FOR VISUALIZATION

In this step, we focus on preparing the dataset for visualization in Tableau. Fortunately, the dataset we're working with has already been pre-cleaned, meaning major cleaning steps such as handling missing values, removing duplicates, and correcting inconsistencies have already been taken care of.

However, even with a clean dataset, it's still essential to go through a brief review process to ensure it's truly ready for analysis:

- Data Review & Exploration
  While the dataset is clean, it's good practice to explore it briefly—checking data types, value ranges, and distributions. This helps us understand the structure, identify any potential outliers, and gain familiarity with the data we'll be visualizing.

- Filtering and Structuring for Purpose
  Depending on the business question, we may still need to filter the data to focus on specific subsets—such as certain time periods, regions, or product categories. Structuring the data to match the visualization goal helps ensure relevance and clarity.
- Field Renaming & Final Formatting
  To enhance clarity in Tableau, we ensure field names are intuitive and consistent. We also check for proper data types (e.g., date fields, numeric values) and relationships if the dataset spans multiple tables.
- Optional Calculated Fields
  If needed, we can create calculated fields (e.g., profit margin, growth rate) to support deeper analysis. Even with a clean dataset, these additions can make our visualizations more insightful.
- Validation for Accuracy
  Lastly, a quick validation against the source or summary metrics ensures everything is accurate. This final step helps maintain trust in the insights generated.

MILESTONE 3 : DATA VISUALIZATION

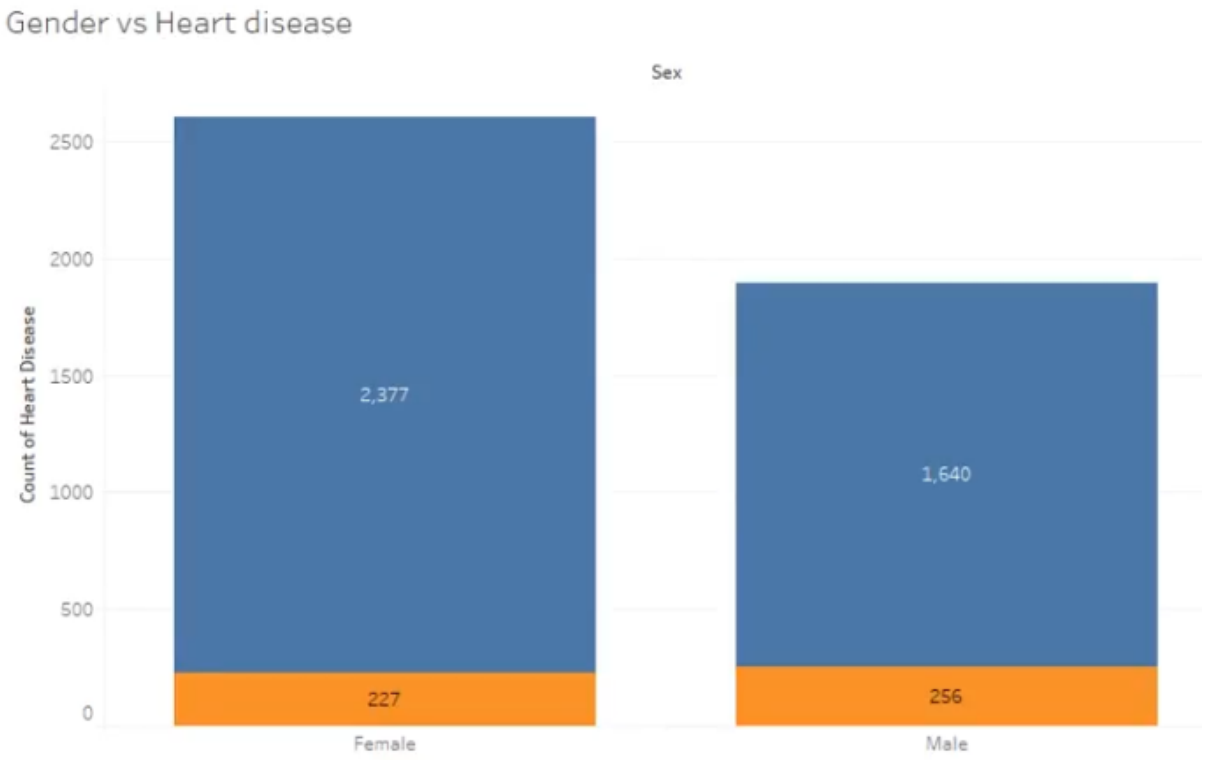
Data visualization is the process of creating graphical representations of data to help people understand and explore the information. The goal of data visualization is to make complex data sets more accessible, intuitive, and easier to interpret. By using visual elements such as charts, graphs, and maps, data visualizations can help people quickly identify patterns, trends, and outliers in the data.

ACTIVITY 1 : NO OF UNIQUE VISUALIZATIONS

This project focuses on analyzing heart disease data using Tableau by creating 8–10 unique visualizations including trend charts, heat maps, comparative bar graphs, scatter plots, and dashboards. The aim is to uncover risk factors like obesity, smoking, and lifestyle habits, enabling healthcare professionals, policymakers, and patients to gain actionable insights and make informed, preventive decisions against cardiovascular diseases.

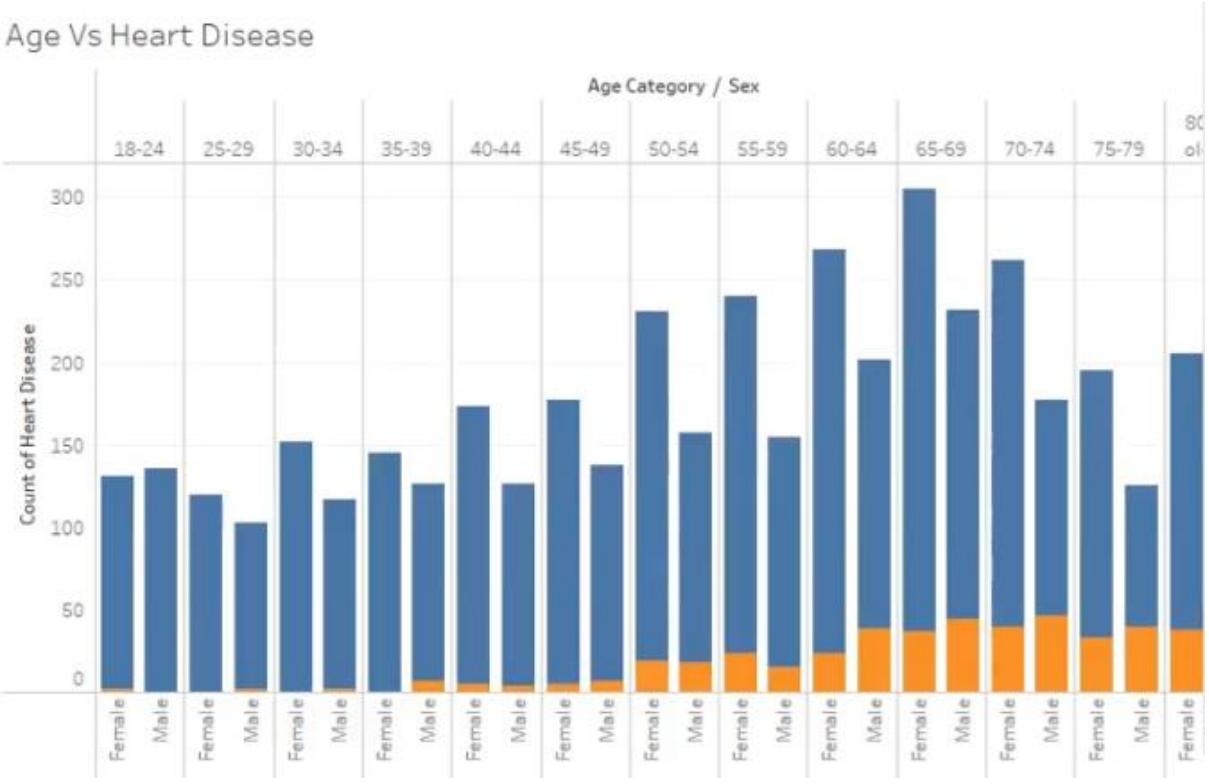
1. Gender Vs Heart Disease

Demo Link



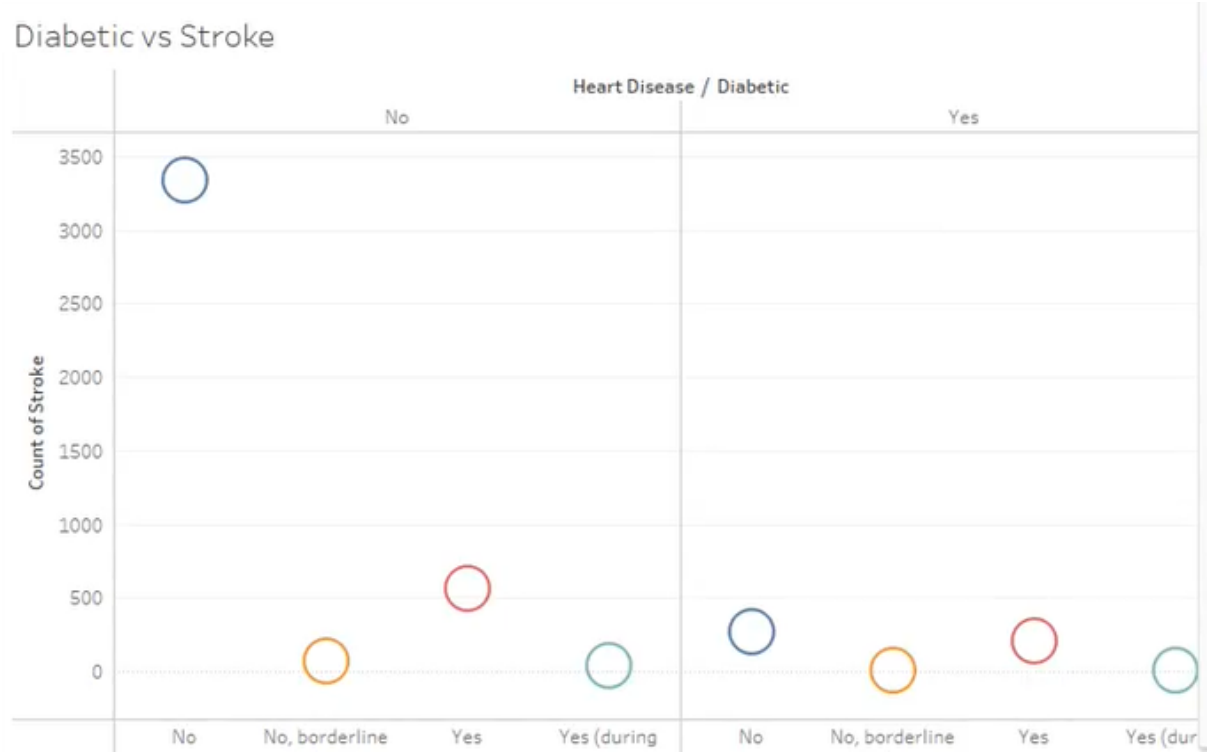
2. Age vs Heart Disease

[Demo Link]



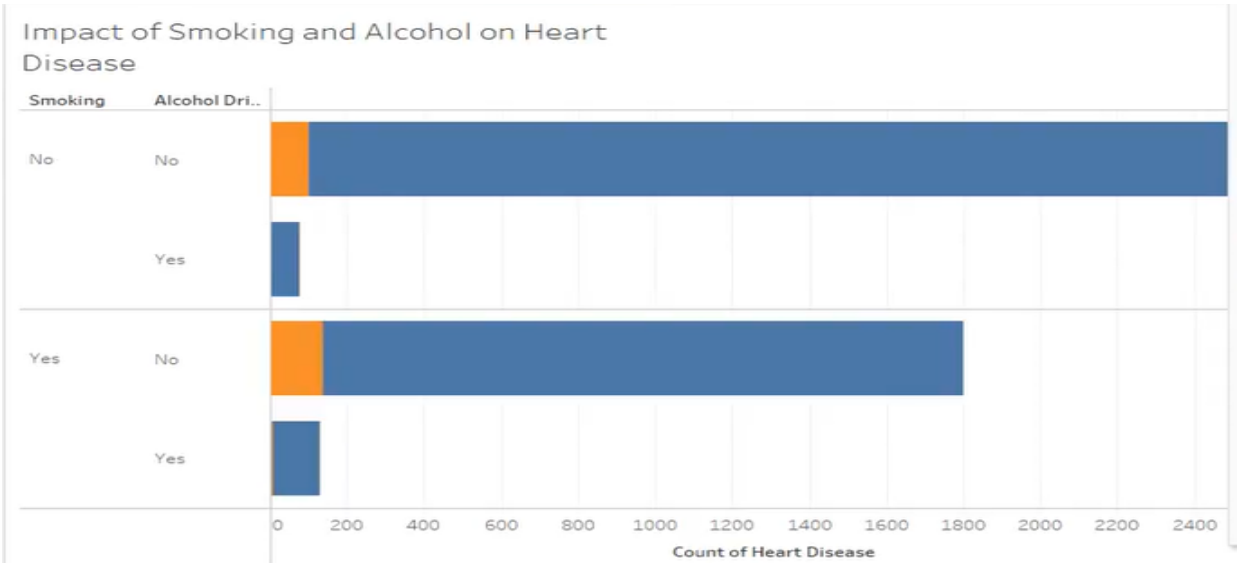
3.Diabetic vs Stroke

Demo Link



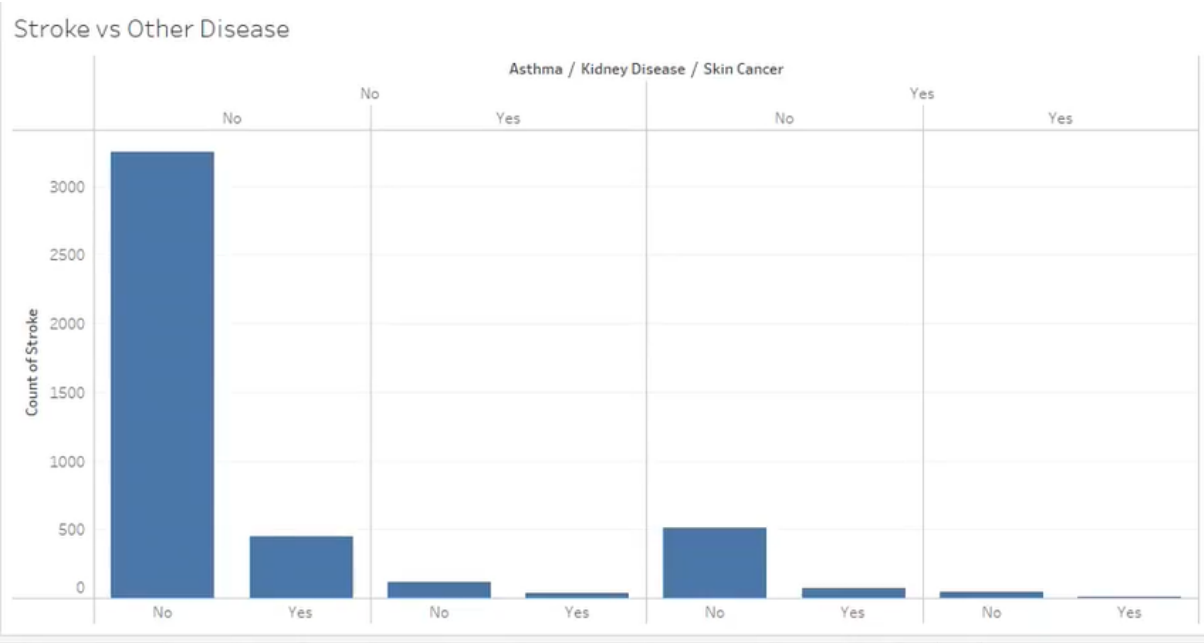
4. Impact of Smoking and Alcohol on Heart Disease

Demo Link



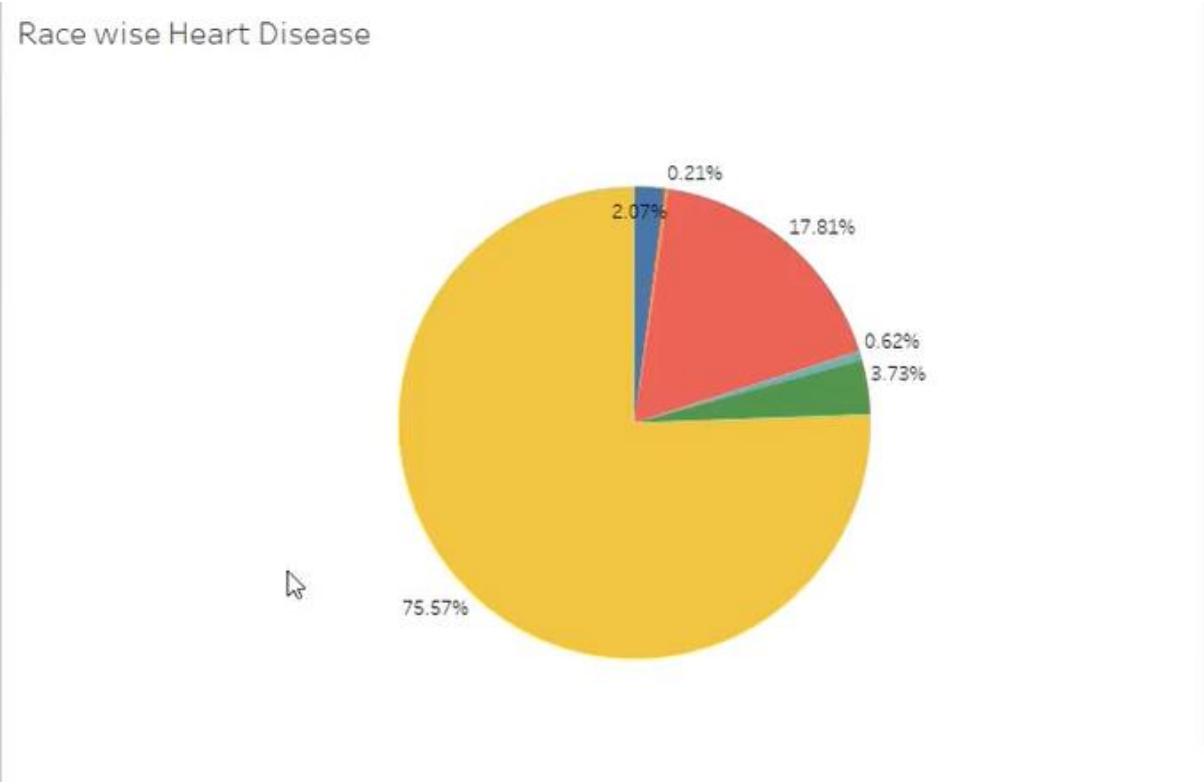
5. Other Heart Disease vs Stroke

Demo Link



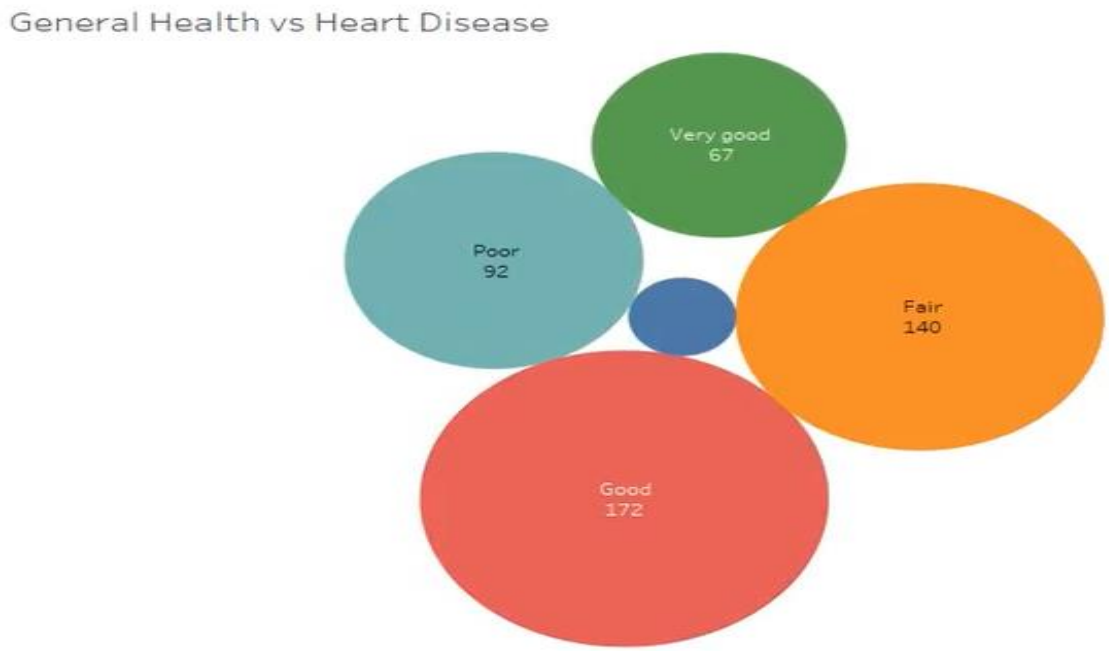
6. Race wise Heart Disease

Demo Link



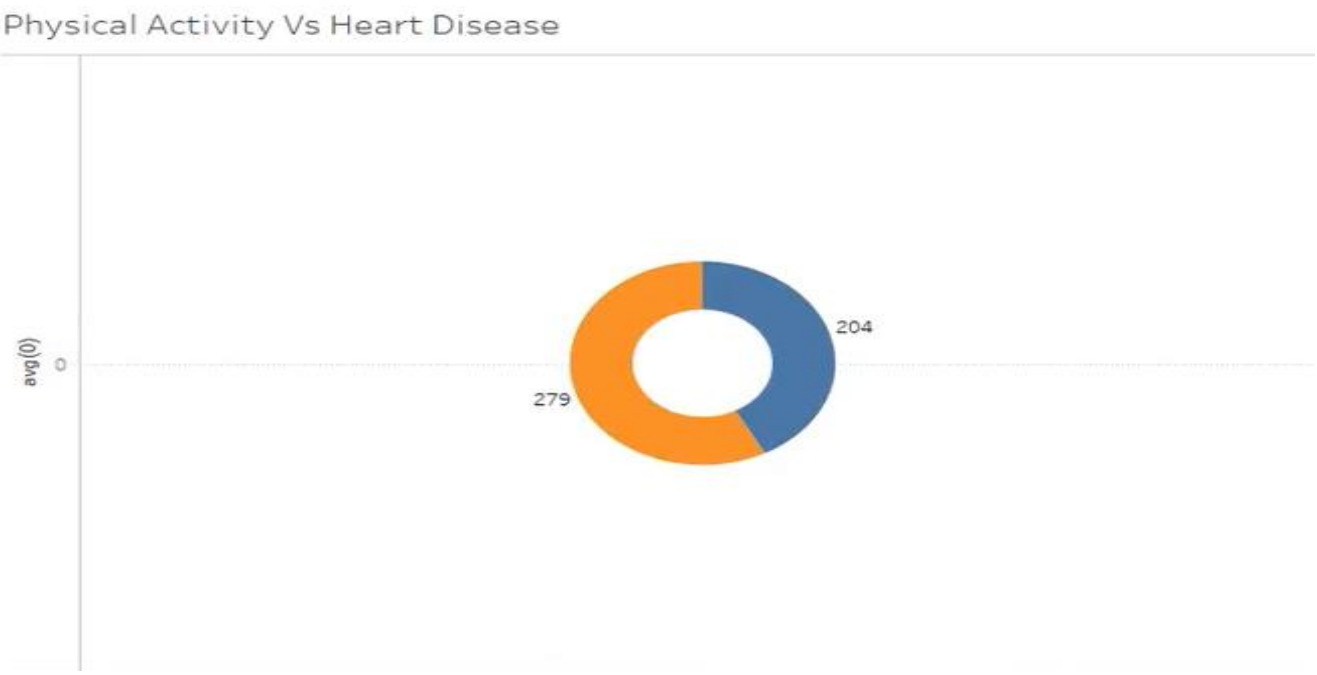
7. General Health vs Heart Disease

Demo Link



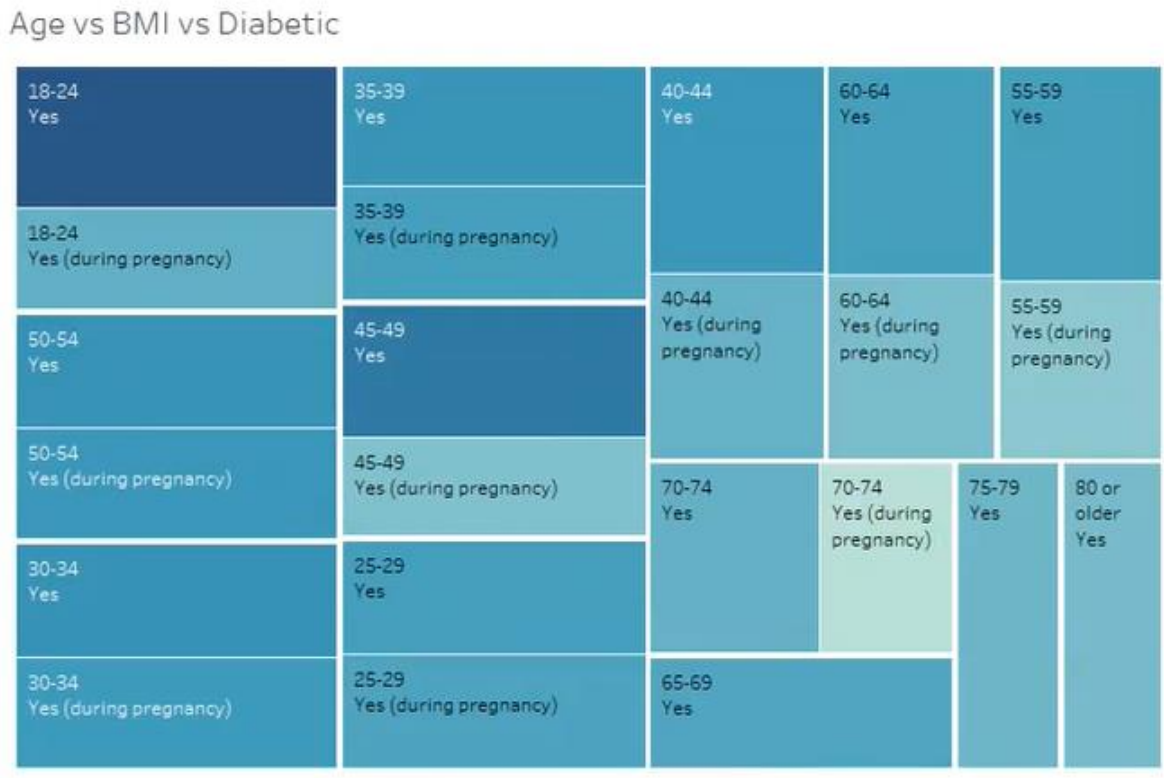
8. Physical Activity vs Heart Disease

Demo Link



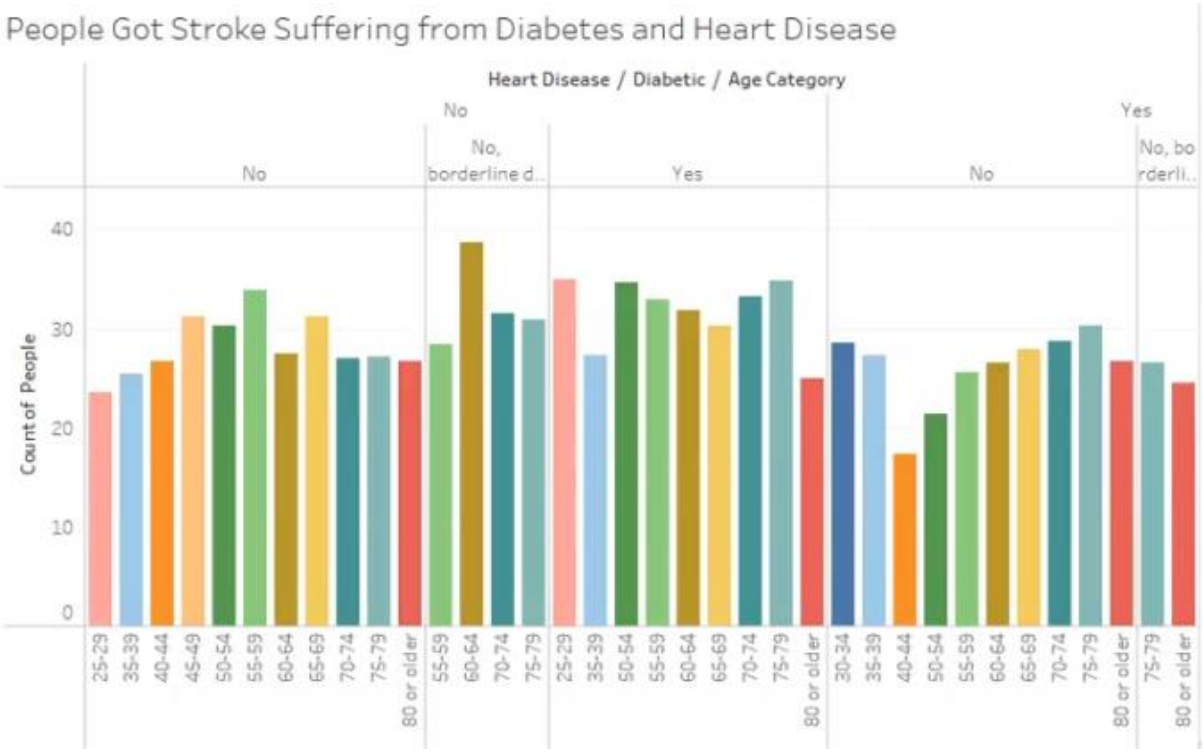
9. Age vs BMI vs Diabetic

Demo Link



10. People got stroke suffering from Heart Disease and Diabetic

[Demo Link]

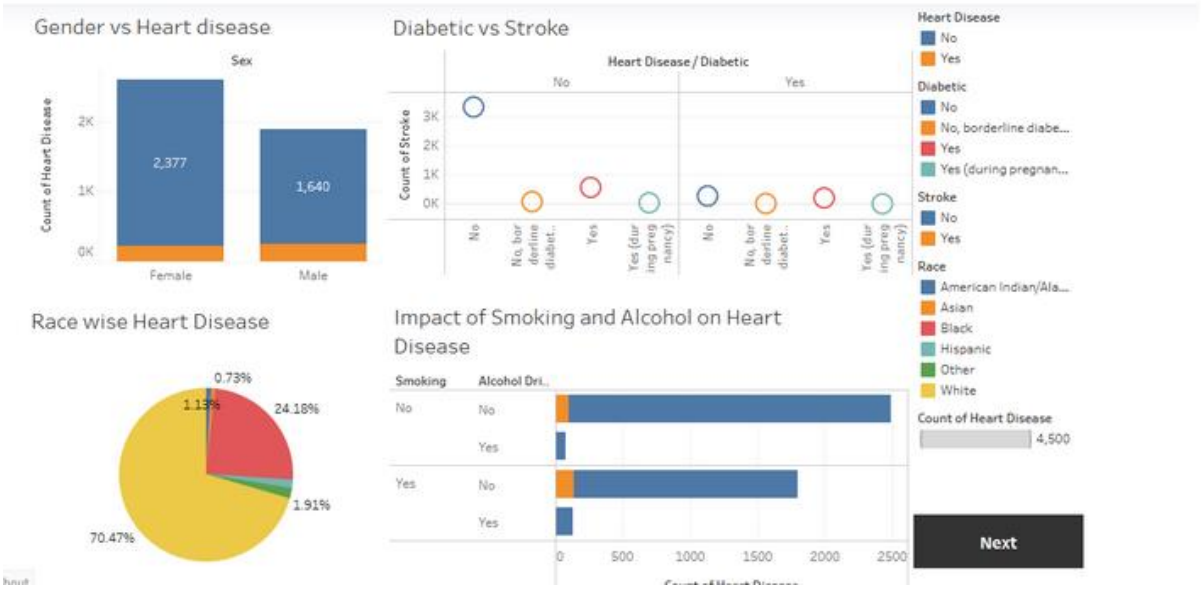


MILESTONE 4 : DASHBOARD

A dashboard is a graphical user interface (GUI) that displays information and data in an organized, easy-to-read format. Dashboards are often used to provide real-time monitoring and analysis of data and are typically designed for a specific purpose or use case. Dashboards can be used in a variety of settings, such as business, finance, manufacturing, healthcare, and many other industries. They can be used to track key performance indicators (KPIs), monitor performance metrics, and display data in the form of charts, graphs, and tables.

ACTIVITY 1 : RESPONSIVE AND DESIGN OF DASHBOARD

A responsive dashboard adapts to different screen sizes—desktop, tablet, or phone—so it looks good and is easy to use everywhere. Use flexible layouts, simplify visuals for small screens, keep fonts and colors clear, and test on multiple devices. This ensures everyone can view and interact with your data smoothly.



MILESTONE 5 : STORY

A data story is a way of presenting data and analysis in a narrative format, intending to make the information more engaging and easier to understand. A data story typically includes a clear introduction that sets the stage and explains the context for the data, a body that presents the data and analysis logically and systematically, and a conclusion that summarizes the key findings and highlights their implications. Data stories can be told using a variety of mediums, such as reports, presentations, interactive visualizations, and videos.

ACTIVITY 1 : NO OF SCENES OF STORY

The number of scenes in a storyboard for a data visualization analysis of the Heart disease will depend on the complexity of the analysis and the specific insights that are trying to be conveyed. A storyboard is a visual representation of the data analysis process and it breaks down the analysis into a series of steps or scenes.

MILESTONE 6 : PERFORMANCE TESTING

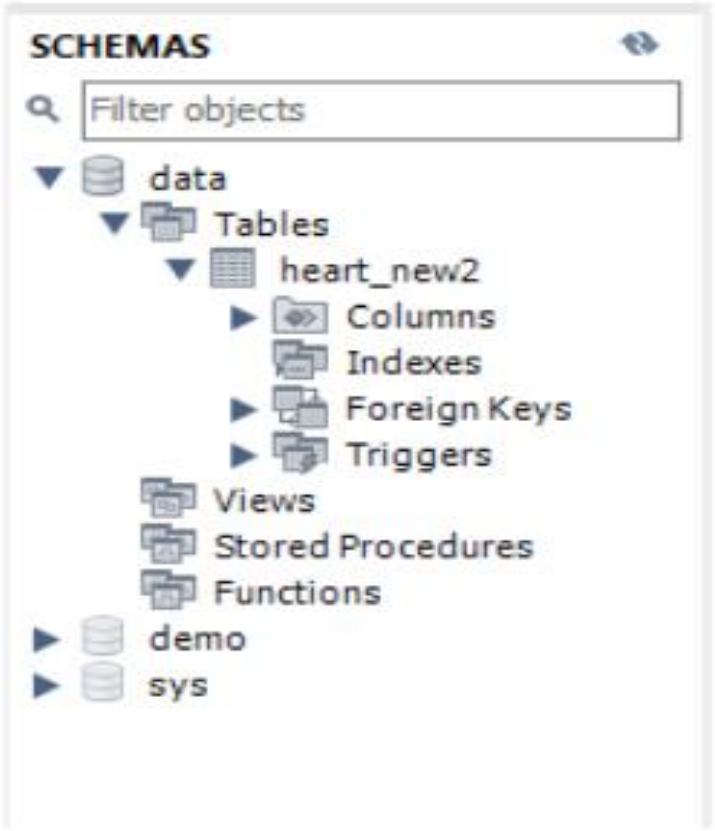
Performance testing involves assessing the volume of data rendered from the database, the impact of data filters on system responsiveness, and the complexity introduced by the number of visualizations. Optimizing these factors ensures the dashboard operates efficiently, providing timely and reliable insights

ACTIVITY 1 :AMOUNT OF DATA TO DB:

Monitor the volume of data being pulled and rendered from the database to ensure queries are optimized and not overloading the system.

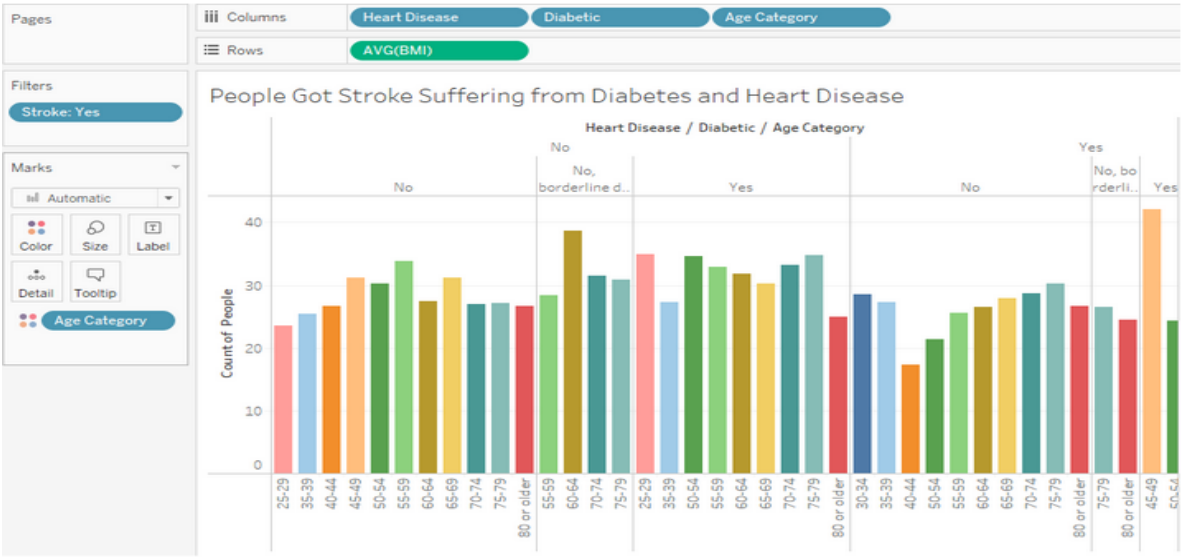
The amount of data that is rendered to a database depends on the size of the dataset and the capacity of the database to store and retrieve data.

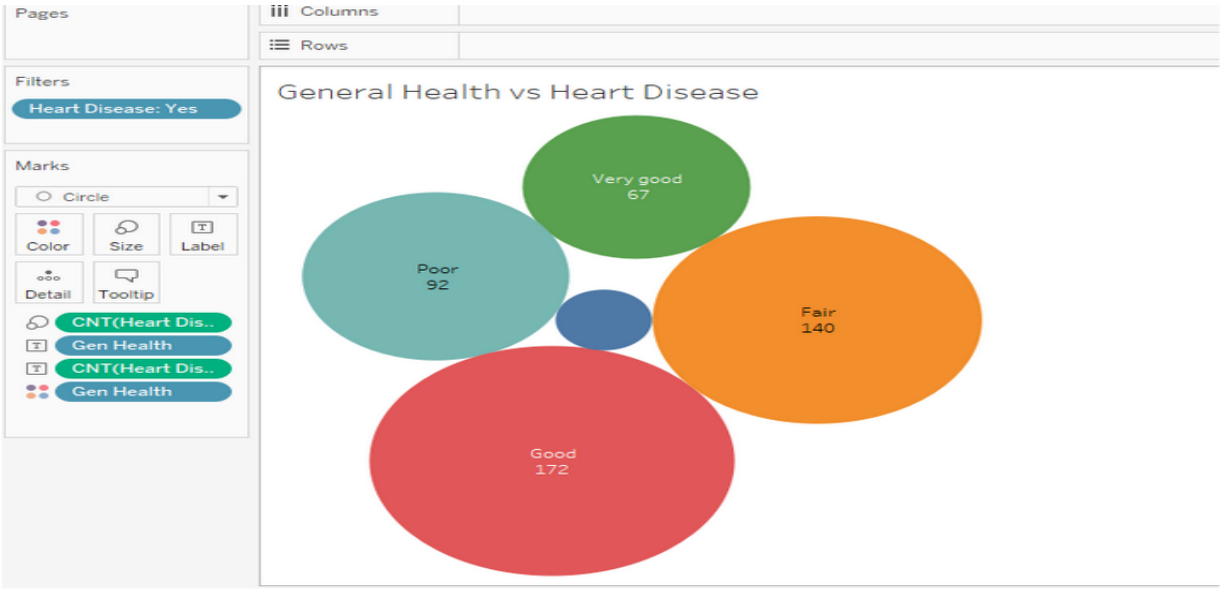
Open the MySQL Workbench, go to the database then click to expand the tables,select the table and click on (i) button to get the information related to table such as column count,table rows etc.



ACTIVITY 2 : UTILIZATION OF DATA FILTERS

Utilization of data filters refers to the effective implementation and management of filtering mechanisms within the Project to refine and focus the dataset. Proper use of filters enhances performance by limiting the volume of data processed and displayed, thereby improving responsiveness. It also enables users to interactively explore specific segments of data, leading to more targeted and meaningful insights.





Attachment

No Story Attachments

No story attachments have been added yet. Please upload attachments to view them here.

ACTIVITY 3 : NO OF CALCULATION FIELDS

In Tableau, a Calculated Field is a custom field you create using formulas to perform computations on your data. It allows you to go beyond the raw fields in your dataset and generate new metrics or dimensions. For example, you might calculate BMI categories, risk scores, or percentage changes.

You can create a calculated field in Tableau by:

1. Right-clicking on the data pane and selecting Create ? Calculated Field.
2. Giving it a name.
3. Writing your formula (e.g., IF [Cholesterol] > 200 THEN "High" ELSE "Normal" END).
4. Clicking OK, after which the new field appears in your data pane.

In our project, we have not created any calculated fields, but you can create them according to the specific insights you want, such as risk group classifications, ratios, or derived health metrics.

ACTIVITY 4 : NO OF VISUALIZATIONS/ GRAPHS

1. Gender wise Heart Disease
2. Age wise Heart Disease

3. People Suffering from Diabetic and Stroke
4. Impact of Smoking and alcohol drinking on heart disease
5. Other Diseases vs Stroke
6. Race wise Heart disease
7. General Health vs Heart Disease
8. Physical activity vs heart disease
9. Age and BMI vs Heart disease
10. People got stroke suffering from Diabetes and Heart disease

MILESTONE 7 : WEB INTEGRATION

Web integration of a Tableau Dashboard Story involves embedding interactive visualizations into a website or web application. This allows users to explore data insights directly within a web interface, enhancing accessibility and engagement. It supports real-time updates, user filtering, and seamless navigation for a dynamic data storytelling experience.

ACTIVITY 1 : PUBLISHING

Publishing helps us to track and monitor key performance metrics and to communicate results and progress. help a publisher stay informed, make better decisions, and communicate their performance to others.

1. Prepare Your Dashboard or Story

- Ensure your dashboard or story is complete and working as expected.
- Clean up any unnecessary sheets or data to reduce file size.

2. Sign in to Tableau Public

- In Tableau Desktop, go to File > Save to Tableau Public.
- If you're not already signed in, a login window will appear.
- Enter your Tableau Public credentials or sign up if you don’t have an account.

3. Save and Publish

- After logging in, you’ll be prompted to name your workbook.
- Click Save – Tableau will upload the workbook to your Tableau Public profile.

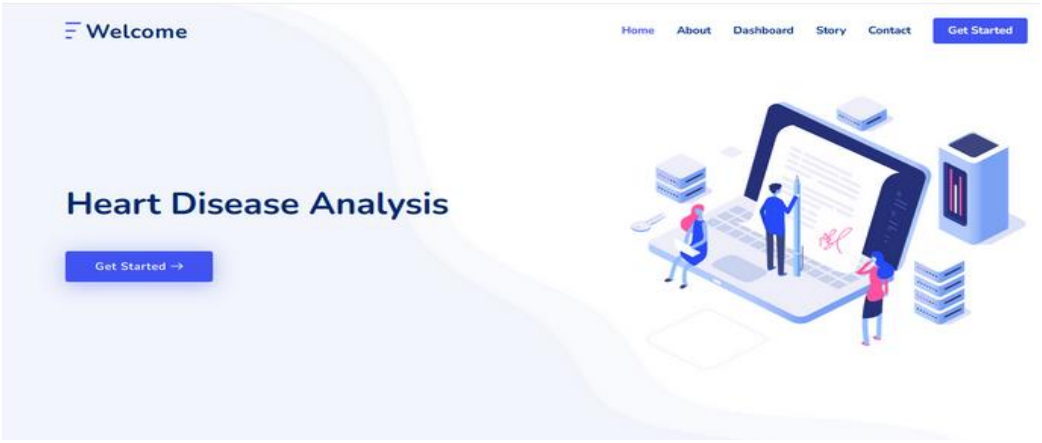
4. View Your Published Dashboard/Story

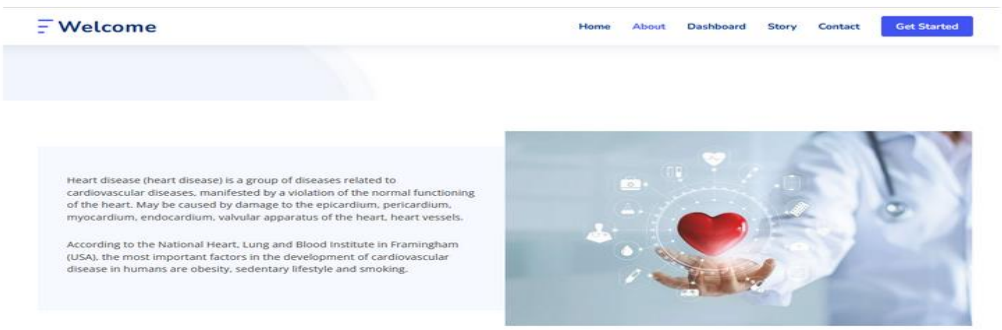
- After uploading, your browser will open the published workbook on your Tableau Public profile.

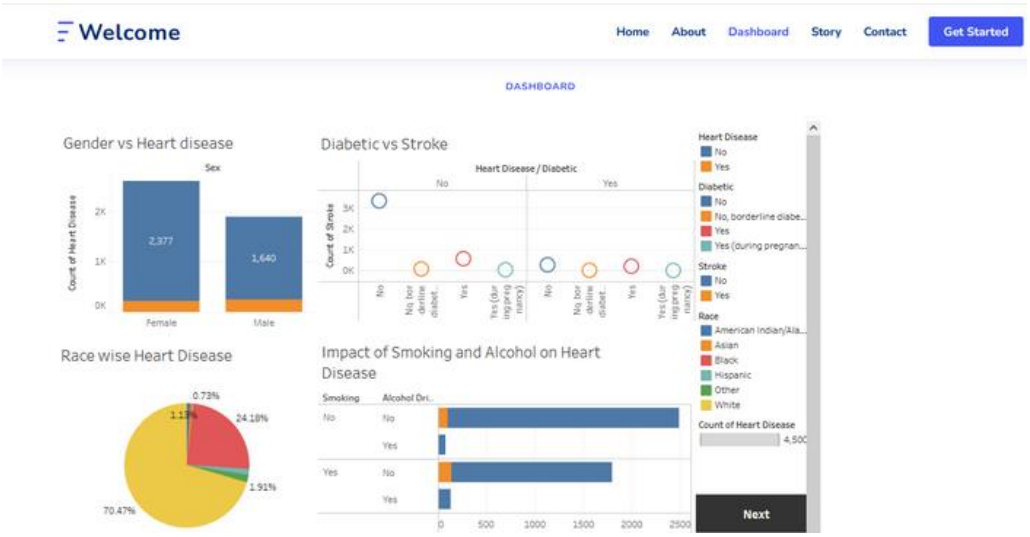
- Here you can:
    - Share the link
    - Embed it into a website
    - Set the workbook to public or hidden

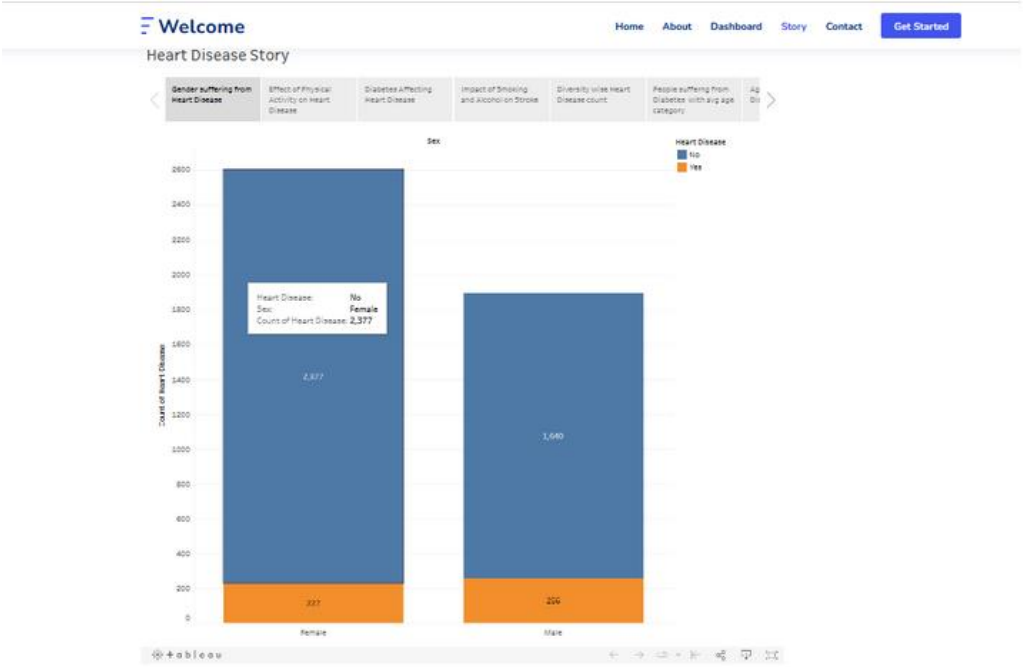
ACTIVITY 2 : DASHBOARD AND STORY EMBED WITH UI WITH FLASK

This section demonstrates how to embed Tableau Dashboards and Stories within a Flask web application to provide interactive, real-time access to heart disease insights. By integrating Tableau's powerful visualization capabilities with Flask's lightweight framework, users can explore dashboards directly in a browser, making the analysis more accessible, shareable, and actionable for healthcare professionals, policymakers, and individuals.









MILESTONE 8 : PROJECT DEMONSTRATION & DOCUMENTATION

Project Demonstration & Documentation involves presenting the project's functionality, features, and outcomes while providing clear written records, diagrams, and explanations to ensure understanding, usability, and reproducibility for stakeholders and future reference.

Below mentioned deliverables to be submitted along with other deliverables
Activity 1:- Record explanation Video for project end to end solution
Activity 2:- Project Documentation-Step by step project development procedure

Create document as per the template provid

OUTPUT :

Clean Data from Excel, CSV, PDF, and Google Sheets with Data Interpreter

Applies to: Tableau Cloud, Tableau Desktop, Tableau Server

When you track data in Excel spreadsheets, you create them with the human interface in mind. To make your spreadsheets easy to read, you might include things like titles, stacked headers, notes, maybe empty rows and columns to add white space, and you probably have multiple tabs of data too.

When you want to analyze this data in Tableau, these aesthetically pleasing attributes make it very difficult for Tableau to interpret your data. That's where Data Interpreter can help.

Tip: Though Tableau's Excel add-in is no longer supported, Data Interpreter can help you reshape your data for analysis in Tableau.

What does Data Interpreter do?

Data Interpreter can give you a head start when cleaning your data. It can detect things like titles, notes, footers, empty cells, and so on and bypass them to identify the actual fields and values in your data set.

It can even detect additional tables and sub-tables so that you can work with a subset of your data independently of the other data.

After Data Interpreter has done its magic, you can check its work to make sure it captured the data that you wanted and identified it correctly. Then, you can make any necessary adjustments.

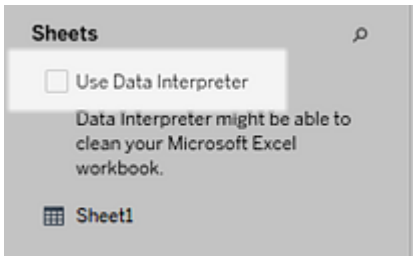
After you select the data that you want to work with, you might also need to do some additional cleaning steps like pivoting your data, splitting fields, or adding filters to get the data in the shape you want before starting your analysis.

Note: If your data needs more cleaning than what Data Interpreter can help you with, try Tableau Prep(Link opens in a new window).

Turn on Data Interpreter and review results

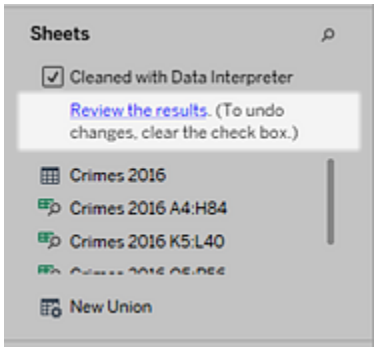
1. **From the Connect pane, connect to an Excel spreadsheet or other connector that supports Data Interpreter such as Text (.csv) files, PDF files or Google sheets.**

2. **Drag a table to the canvas (if needed), then on the Data Source page, in the left pane, select the Use Data Interpreter check box to see if Data Interpreter can help clean up your data.**

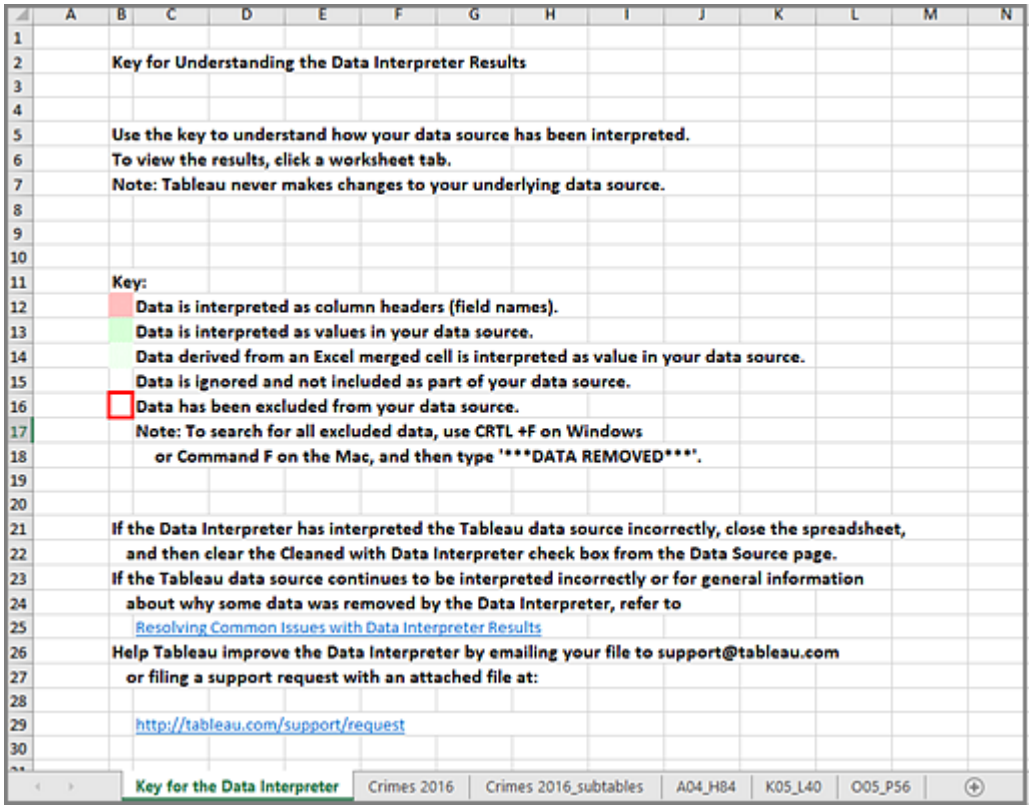


Note: When you clean your data with Data Interpreter, Data Interpreter cleans all the data associated with a connection in the data source. Data Interpreter does not change the underlying data.

3. **In the Data pane, click the Review the results link to review the results of the Data Interpreter.**



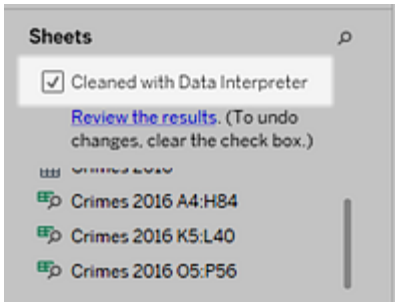
A copy of your data source opens in Excel on the Key for the Data Interpreter tab. Review the key to find out how to read the results.



4. Click each tab to review how Data Interpreter interpreted the data source.

If Data Interpreter found additional tables, also called found tables or sub-tables, they are identified in the <sheet name>_subtables tab by outlining their cell ranges. A separate tab is also included for each sub-table, color coded to identify the header and data rows.

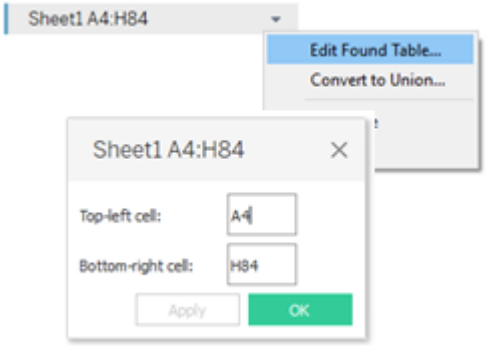
If Data Interpreter does not provide the expected results, clear the Cleaned with Data Interpreter check box to use the original data source.



5. To replace the current table with any of the found tables, drag the current table off the canvas and then drag the found table that you want to use to the canvas.

If Data interpreter has misidentified the range of the found table, after you drag the found table to the canvas, click the drop-down arrow on that table, and then

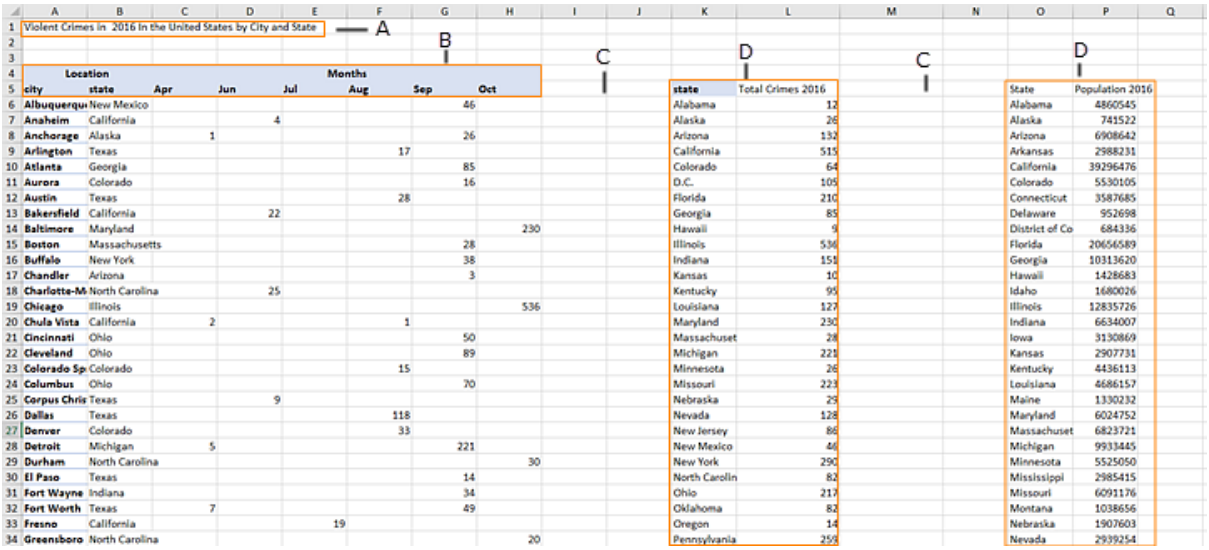
select Edit Found Table to adjust the corners of the found table (the top-left cell and bottom-right cell of the table).



6. **After you have the data that you want to work with, you can apply any additional cleaning operations to your data so that you can analyze it.**

Data Interpreter Example

In this example we are connecting to an Excel spreadsheet with violent crime data by city and state for the year 2016. This spreadsheet includes multiple tables on one sheet and some extra formatting.



A. **Title**

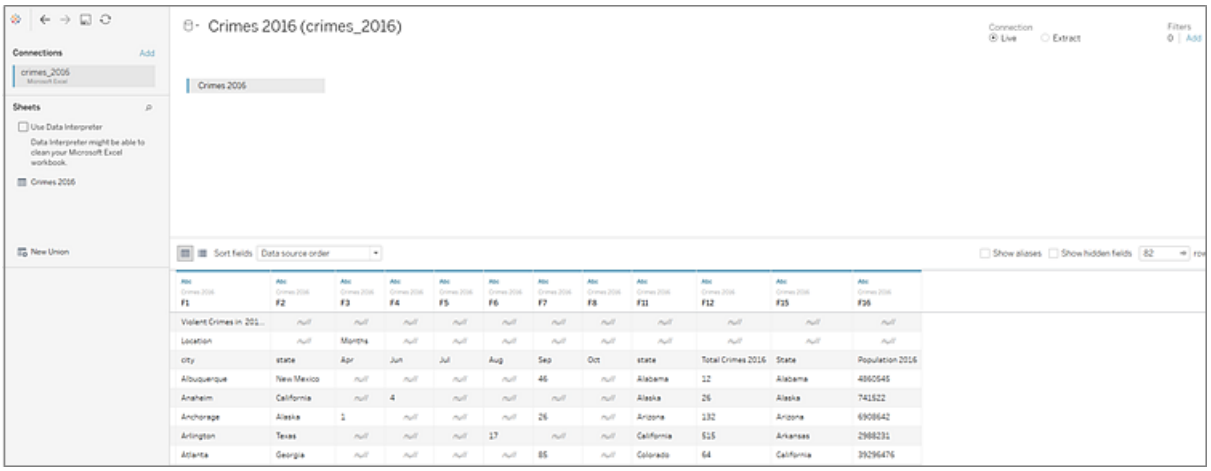
B. **Merged header cells**

C. **Extra white space**

D. **Sub-tables**

The extra formatting in this spreadsheet makes it difficult for Tableau to determine what the field headers and values are.

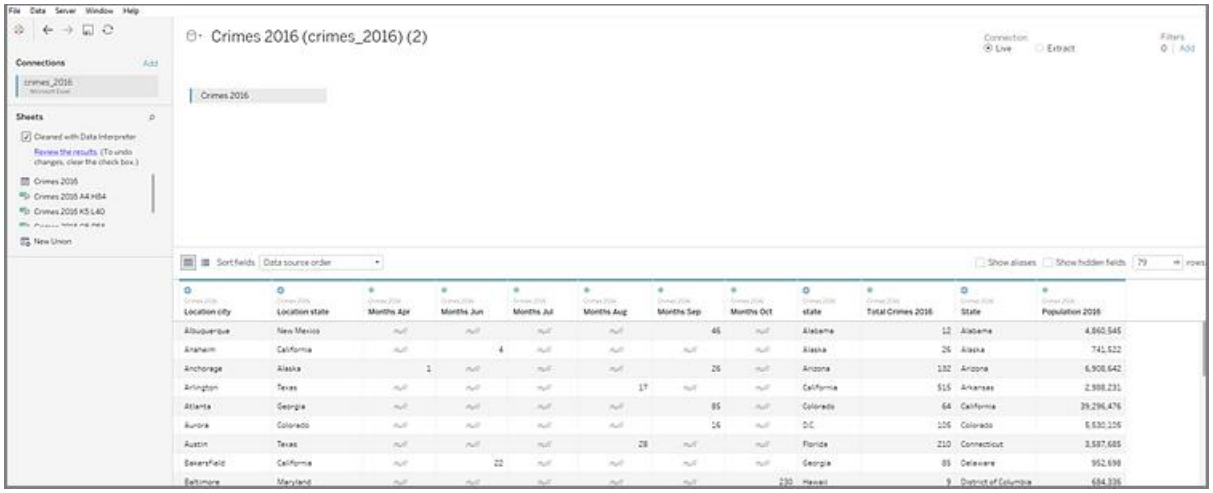
Instead, it reads the data vertically and assigns each column the default value F1, F2, F3 (Field 1, Field 2, Field 3) and so on. Blank cells are read as null values.



To see if Data Interpreter can help clean this data set, we select Use Data Interpreter.

Data Interpreter detected the proper headings for the fields, removed the extra formatting and found several sub-tables. The sub-tables are listed in the Sheets section in the Data pane and are named using the original sheet name and the cell ranges for each sub-table.

In this example there are three sub-tables: Crimes 2016 A4:H84, Crimes 2016 K5:L40, and Crimes 2016 O5:P56.

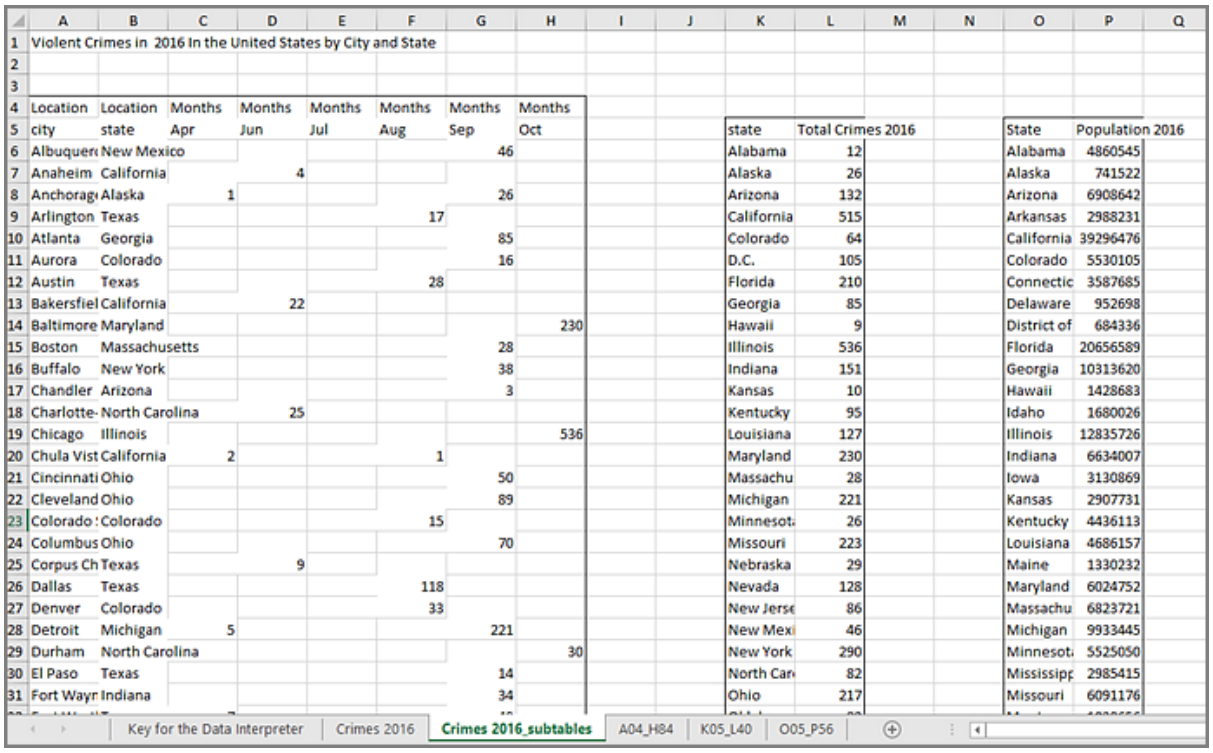


To examine the results of the Data Interpreter more closely, we click the Review the results link in the Data pane to view an annotated copy of the spreadsheet.

Here we see a copy of the original data, color coded to identify which data was identified as header data and which data was identified as field values.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1	Violent Crimes in 2016 In the United States by City and State																
2																	
3																	
4	Location	Location	Months	Months	Months	Months	Months	Months									Header
5	city	state	Apr	Jun	Jul	Aug	Sep	Oct			state	Total Crimes 2016			State	Populatio	Header
6	Albuquer	New Mexico					46				Alabama	12			Alabama	4860545	Data
7	Anaheim	California			4						Alaska	26			Alaska	741522	Data
8	Anchorag	Alaska		1			26				Arizona	132			Arizona	6908642	Data
9	Arlington	Texas				17					California	515			Arkansas	2988231	Data
10	Atlanta	Georgia					85				Colorado	64			California	39296476	Data
11	Aurora	Colorado					16				D.C.	105			Colorado	5530105	Data
12	Austin	Texas				28					Florida	210			Connectic	3587685	Data
13	Bakersfiel	California			22						Georgia	85			Delaware	952698	Data
14	Baltimore	Maryland						230			Hawaii	9			District of	684336	Data
15	Boston	Massachusetts					28				Illinois	536			Florida	20656589	Data
16	Buffalo	New York					38				Indiana	151			Georgia	10313620	Data
17	Chandler	Arizona					3				Kansas	10			Hawaii	1428683	Data

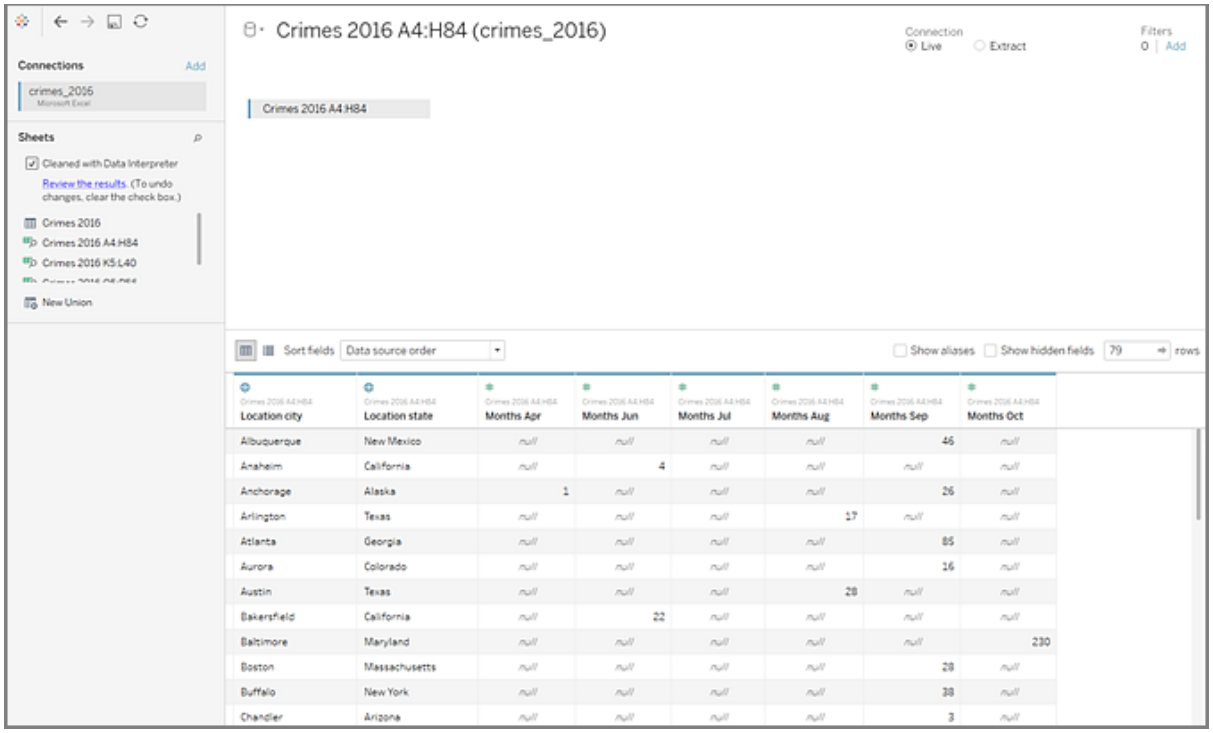
The next tab shows us the sub-tables that Data Interpreter found, outlined by the cell ranges.



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1	Violent Crimes in 2016 In the United States by City and State																
2																	
3																	
4	Location	Location	Months	Months	Months	Months	Months	Months									
5	city	state	Apr	Jun	Jul	Aug	Sep	Oct			state	Total Crimes 2016			State	Population 2016	
6	Albuquer	New Mexico					46				Alabama	12			Alabama	4860545	
7	Anaheim	California			4						Alaska	26			Alaska	741522	
8	Anchorag	Alaska		1			26				Arizona	132			Arizona	6908642	
9	Arlington	Texas				17					California	515			Arkansas	2988231	
10	Atlanta	Georgia					85				Colorado	64			California	39296476	
11	Aurora	Colorado					16				D.C.	105			Colorado	5530105	
12	Austin	Texas				28					Florida	210			Connectic	3587685	
13	Bakersfiel	California			22						Georgia	85			Delaware	952698	
14	Baltimore	Maryland						230			Hawaii	9			District of	684336	
15	Boston	Massachusetts					28				Illinois	536			Florida	20656589	
16	Buffalo	New York					38				Indiana	151			Georgia	10313620	
17	Chandler	Arizona					3				Kansas	10			Hawaii	1428683	
18	Charlotte-	North Carolina			25						Kentucky	95			Idaho	1680026	
19	Chicago	Illinois						536			Louisiana	127			Illinois	12835726	
20	Chula Vist	California		2			1				Maryland	230			Indiana	6634007	
21	Cincinnati	Ohio					50				Massachu	28			Iowa	3130869	
22	Cleveland	Ohio					89				Michigan	221			Kansas	2907731	
23	Colorado :	Colorado				15					Minnesot	26			Kentucky	4436113	
24	Columbus	Ohio					70				Missouri	223			Louisiana	4686157	
25	Corpus Ch	Texas			9						Nebraska	29			Maine	1330232	
26	Dallas	Texas				118					Nevada	128			Maryland	6024752	
27	Denver	Colorado				33					New Jerse	86			Massachu	6823721	
28	Detroit	Michigan	5				221				New Mexi	46			Michigan	9933445	
29	Durham	North Carolina						30			New York	290			Minnesot	5525050	
30	El Paso	Texas					14				North Car	82			Mississipp	2985415	
31	Fort Wayr	Indiana					34				Ohio	217			Missouri	6091176	

Key for the Data Interpreter | Crimes 2016 | Crimes 2016_subtables | A04_H84 | K05_L40 | O05_P56

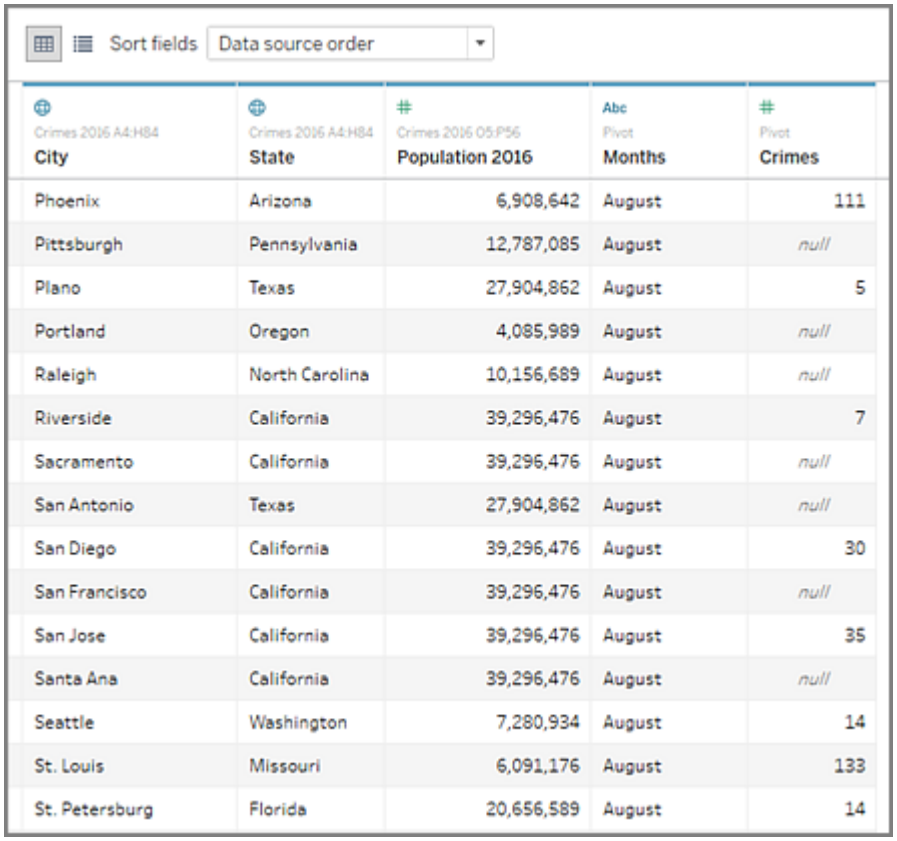
In this example the first sub-table, Crimes 2016 A4:H84, has the main data that we want to work with. To use this table as our data table, we can simply drag the original table off the canvas and then drag the new table to the canvas.



Once we have the data that we want to work with in the canvas, we can do some additional clean up on the data. For example we can:

- **Change the field names so that they represent city, state, and month names.**
- **Pivot the months fields.**
- **Drag in the third sub-table Crimes 2016 o5:P56 and join it to our first sub-table on the State field to include state populations for our analysis.**
- **Hide any duplicate fields that were added as a result of the join.**

The results might look something like this:



Sort fields: Data source order

Crimes 2016 A4:H84 City	Crimes 2016 A4:H84 State	Crimes 2016 05:P56 Population 2016	Pivot Months	Pivot Crimes
Phoenix	Arizona	6,908,642	August	111
Pittsburgh	Pennsylvania	12,787,085	August	*null*
Plano	Texas	27,904,862	August	5
Portland	Oregon	4,085,989	August	*null*
Raleigh	North Carolina	10,156,689	August	*null*
Riverside	California	39,296,476	August	7
Sacramento	California	39,296,476	August	*null*
San Antonio	Texas	27,904,862	August	*null*
San Diego	California	39,296,476	August	30
San Francisco	California	39,296,476	August	*null*
San Jose	California	39,296,476	August	35
Santa Ana	California	39,296,476	August	*null*
Seattle	Washington	7,280,934	August	14
St. Louis	Missouri	6,091,176	August	133
St. Petersburg	Florida	20,656,589	August	14

Now we are ready to start analyzing our data in Tableau.

When Data Interpreter is not available

The Data Interpreter option might not be available for the following reasons:

- **The data source is already in a format that Tableau can interpret: If Tableau Desktop doesn't need extra help from Data Interpreter to handle unique formatting or extraneous information, the Data Interpreter option is not available.**
- **Many rows or many columns: The Data Interpreter option is not be available when your data has the following attributes:**
    - **Data contains more than 2000 columns.**
    - **Data contains more than 3000 rows and more than 150 columns.**
- **The data source is not supported: Data Interpreter is only available for Microsoft Excel, Text (.csv) files, PDF files and Google Sheets. For Excel, your data must be in the .xls or .xlsx format.**

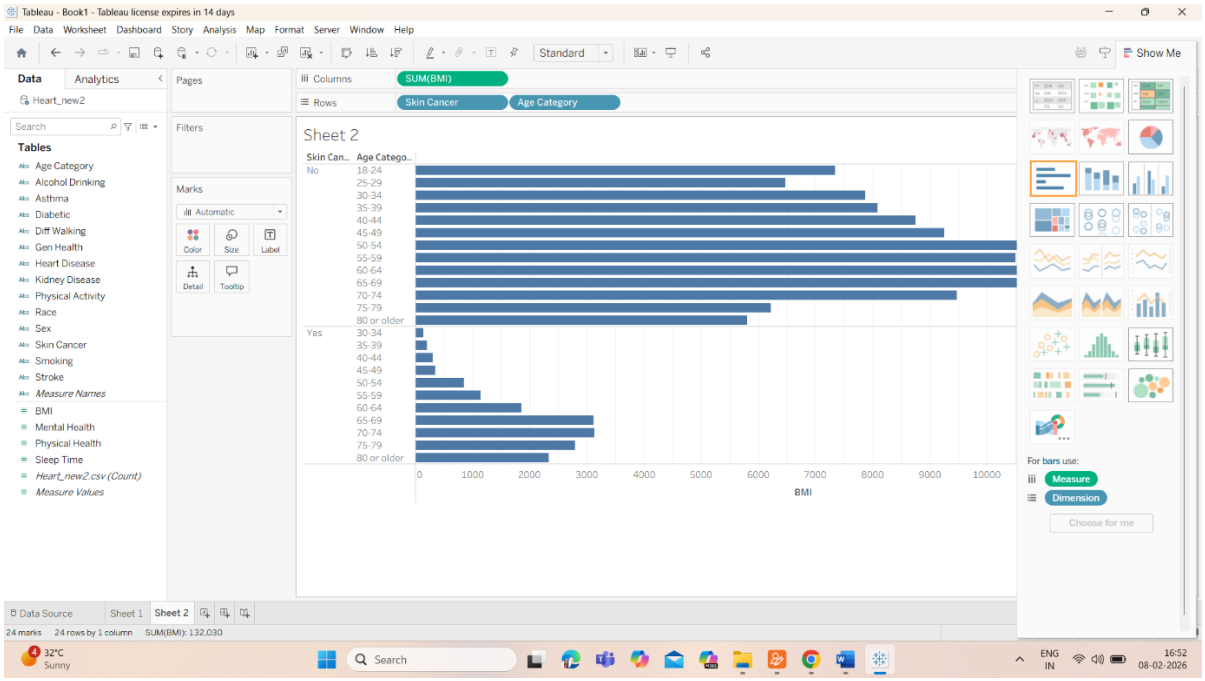


Tableau - Book1 - Tableau license expires in 14 days
File Data Worksheet Dashboard Story Analysis Map Format Server Window Help
Standard
Show Me
Data
Analytics
Heart_new2
Search
Tables
Age Category
Alcohol Drinking
Asthma
Diabetic
Diff Walking
Gen Health
Heart Disease
Kidney Disease
Physical Activity
Race
Sex
Skin Cancer
Smoking
Stroke
Measure Names
BMI
Mental Health
Physical Health
Sleep Time
Heart_new2.csv (Count)
Measure Values
Pages
Filters
Marks
Automatic
Color
Size
Label
Detail
Tooltip
Columns
SUM(BMI)
Rows
Skin Cancer
Age Category
Sheet 2
Skin Can..
Age Catego..
No
Yes
18-24
25-29
30-34
35-39
40-44
45-49
50-54
55-59
60-64
65-69
70-74
75-79
80 or older
0
1000
2000
3000
4000
5000
6000
7000
8000
9000
10000
BMI
For bars use:
Measure
Dimension
Choose for me
Data Source
Sheet 1
Sheet 2
24 marks
24 rows by 1 column
SUM(BMI): 132,030
32°C
Sunny
Search
ENG
IN
16:52
08-02-2026

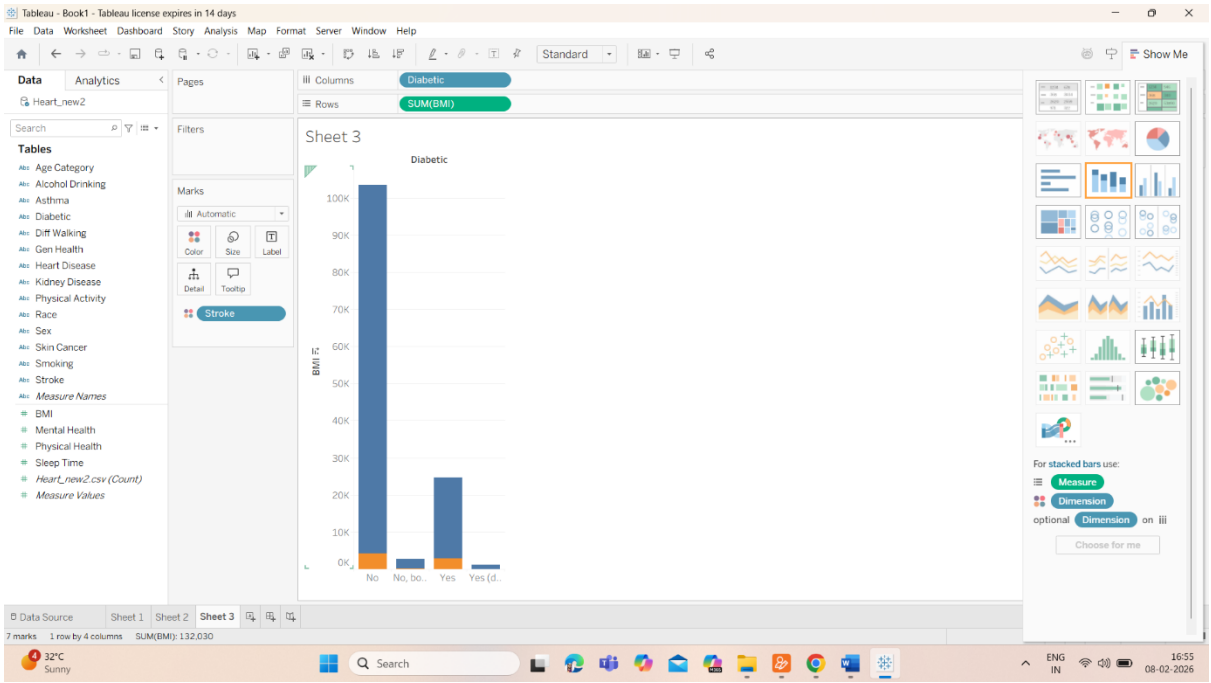


Tableau - Book1 - Tableau license expires in 14 days
File Data Worksheet Dashboard Story Analysis Map Format Server Window Help
Standard
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Age Category
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Gen Health
Heart Disease
Kidney Disease
Physical Activity
Race
Sex
Skin Cancer
Smoking
Stroke
Measure Names
BMI
Mental Health
Physical Health
Sleep Time
Heart_new2.csv (Count)
Measure Values
Pages
Filters
Marks
Automatic
Color
Size
Label
Detail
Tooltip
Stroke
Columns
Diabetic
Rows
SUM(BMI)
Sheet 3
Diabetic
BMI
100K
90K
80K
70K
60K
50K
40K
30K
20K
10K
0K
No
No, bo..
Yes
Yes (d..
For stacked bars use:
Measure
Dimension
optional
Dimension
on
Choose for me
Data Source
Sheet 1
Sheet 2
Sheet 3
7 marks
1 row by 4 columns
SUM(BMI): 132,030
32°C
Sunny
Search
ENG
IN
16:55
08-02-2026

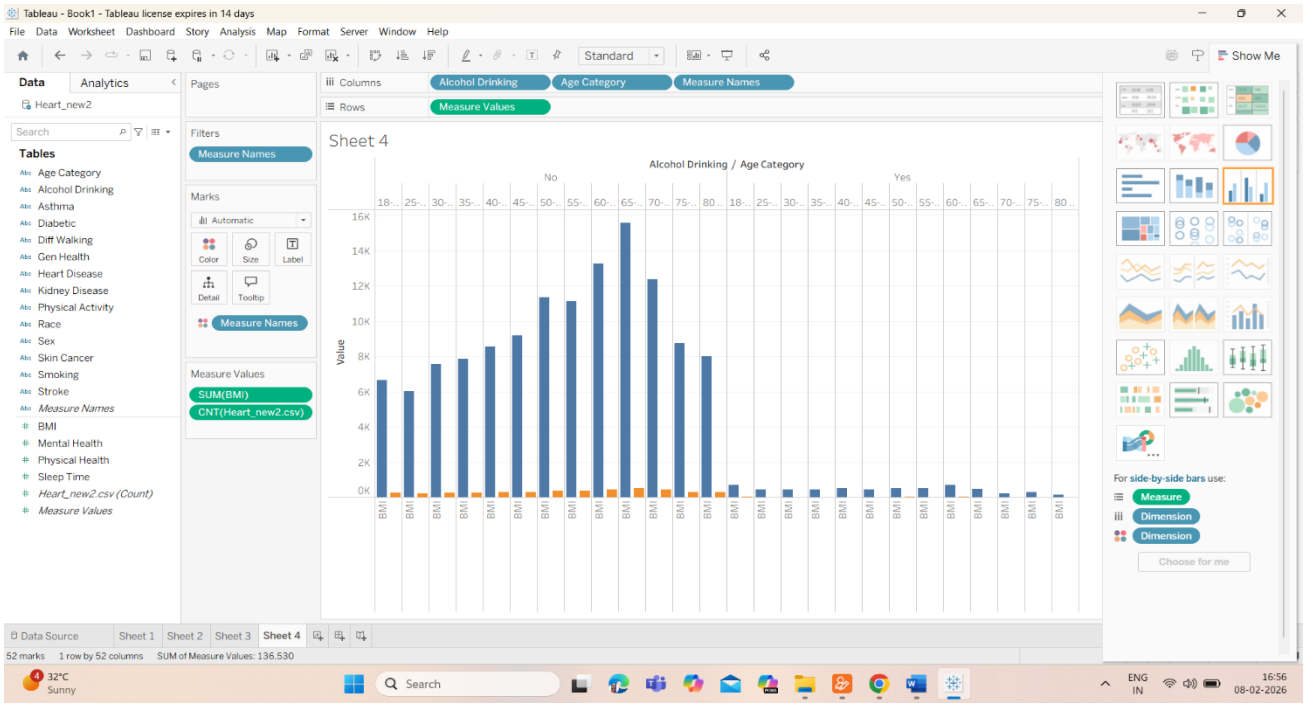


Tableau - Book1 - Tableau license expires in 14 days
File Data Worksheet Dashboard Story Analysis Map Format Server Window Help
Data Analytics
Heart_new2
Tables
Age Category
Alcohol Drinking
Asthma
Diabetic
Diff Walking
Gen Health
Heart Disease
Kidney Disease
Physical Activity
Race
Sex
Skin Cancer
Smoking
Stroke
Measure Names
BMI
Mental Health
Physical Health
Sleep Time
Heart_new2.csv (Count)
Measure Values
Pages
Filters
Measure Names
Marks
Automatic
Color
Size
Label
Detail
Tooltip
Measure Names
Measure Values
SUM(BMI)
CNT(Heart_new2.csv)
Columns
Alcohol Drinking
Age Category
Measure Names
Rows
Measure Values
Sheet 4
Alcohol Drinking / Age Category
No
Yes
Value
For side-by-side bars use:
Measure
Dimension
Dimension
Choose for me
Data Source
Sheet 1
Sheet 2
Sheet 3
Sheet 4
52 marks
1 row by 52 columns
SUM of Measure Values: 136.530
32°C
Sunny
Search
ENG
IN
16:56
08-02-2026

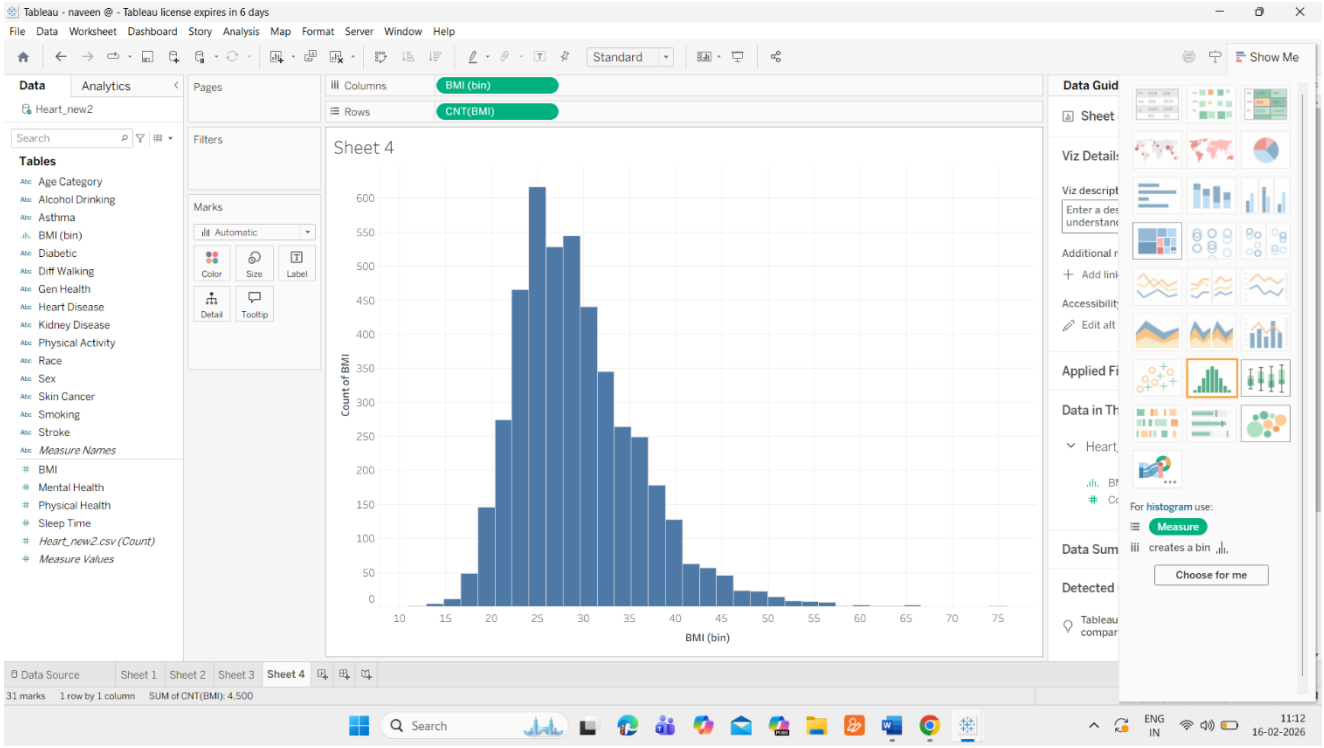
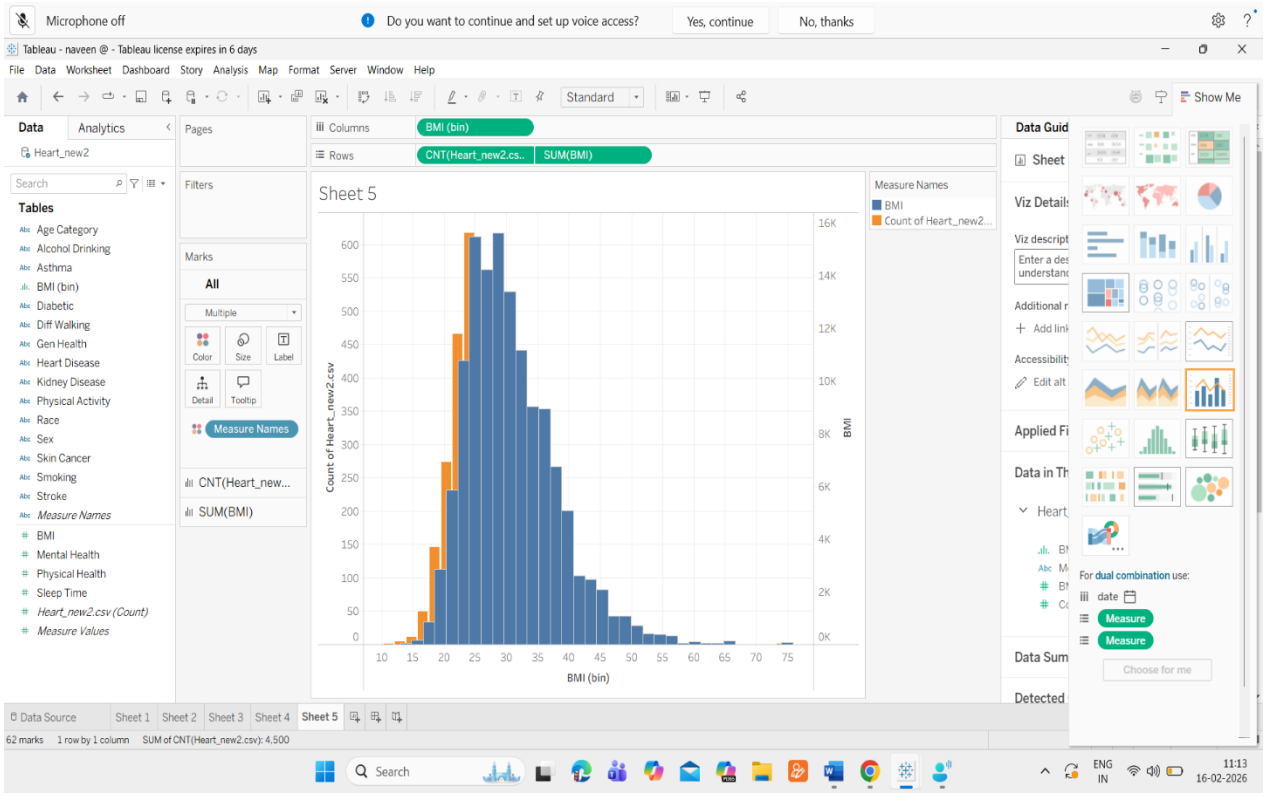
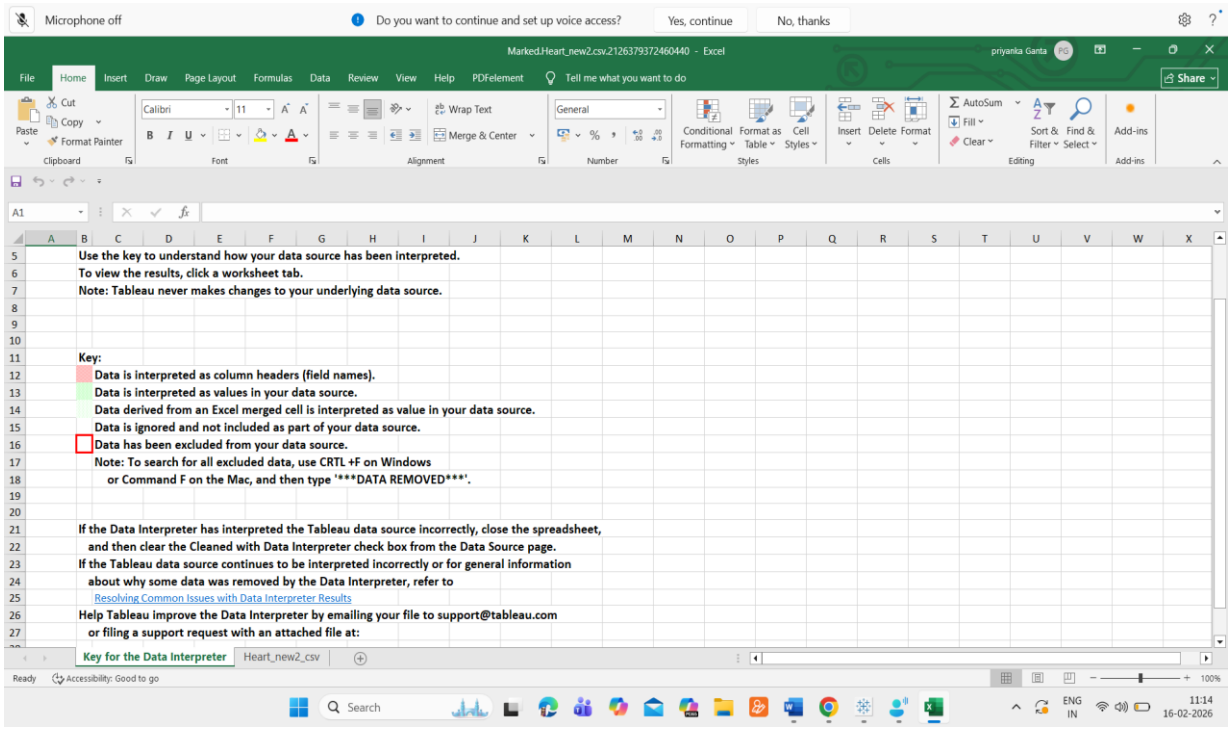


Tableau - naveen @ - Tableau license expires in 6 days
File Data Worksheet Dashboard Story Analysis Map Format Server Window Help
Data Analytics
Heart_new2
Tables
Age Category
Alcohol Drinking
Asthma
BMI (bin)
Diabetic
Diff Walking
Gen Health
Heart Disease
Kidney Disease
Physical Activity
Race
Sex
Skin Cancer
Smoking
Stroke
Measure Names
BMI
Mental Health
Physical Health
Sleep Time
Heart_new2.csv (Count)
Measure Values
Pages
Filters
Marks
Automatic
Color
Size
Label
Detail
Tooltip
Columns
BMI (bin)
Rows
CNT(BMI)
Sheet 4
Count of BMI
BMI (bin)
Data Guid
Viz Details
For histogram use:
Measure
creates a bin
Choose for me
Data Source
Sheet 1
Sheet 2
Sheet 3
Sheet 4
31 marks
1 row by 1 column
SUM of CNT(BMI): 4,500
Search
ENG
IN
11:12
16-02-2026


Microphone off
Do you want to continue and set up voice access?
Yes, continue
No, thanks
Tableau - naveen @ - Tableau license expires in 6 days
File Data Worksheet Dashboard Story Analysis Map Format Server Window Help
Standard
Show Me
Data
Analytics
Heart_new2
Search
Tables
Age Category
Alcohol Drinking
Asthma
BMI (bin)
Diabetic
Diff Walking
Gen Health
Heart Disease
Kidney Disease
Physical Activity
Race
Sex
Skin Cancer
Smoking
Stroke
Measure Names
BMI
Mental Health
Physical Health
Sleep Time
Heart_new2.csv (Count)
Measure Values
Pages
Filters
Marks
All
Multiple
Color
Size
Label
Detail
Tooltip
Measure Names
CNT(Heart_new...
SUM(BMI)
Columns
BMI (bin)
Rows
CNT(Heart_new2.cs..
SUM(BMI)
Sheet 5
Count of Heart_new2.csv
BMI
BMI (bin)
Measure Names
BMI
Count of Heart_new2...
Data Guid
Sheet
Viz Details
Viz descript
Enter a des
understanc
Additional r
Add link
Accessibility
Edit alt
Applied Fi
Data in Th
Heart
For dual combination use:
date
Measure
Measure
Choose for me
Data Sum
Detected
Data Source
Sheet 1
Sheet 2
Sheet 3
Sheet 4
Sheet 5
62 marks
1 row by 1 column
SUM of CNT(Heart_new2.csv): 4,500
Search
ENG
IN
11:13
16-02-2026


Microphone off
Do you want to continue and set up voice access?
Yes, continue
No, thanks
Marked.Heart_new2.csv.2126379372460440 - Excel
priyanka Ganta
File Home Insert Draw Page Layout Formulas Data Review View Help PDFelement
Tell me what you want to do
Share
Paste
Cut
Copy
Format Painter
Clipboard
Calibri
11
Font
Wrap Text
Merge & Center
Alignment
General
Number
Conditional Formatting
Format as Table
Cell Styles
Styles
Insert
Delete
Format
Cells
AutoSum
Fill
Clear
Sort & Filter
Find & Select
Editing
Add-ins
A1
Use the key to understand how your data source has been interpreted.
To view the results, click a worksheet tab.
Note: Tableau never makes changes to your underlying data source.
Key:
Data is interpreted as column headers (field names).
Data is interpreted as values in your data source.
Data derived from an Excel merged cell is interpreted as value in your data source.
Data is ignored and not included as part of your data source.
Data has been excluded from your data source.
Note: To search for all excluded data, use CRTL +F on Windows
or Command F on the Mac, and then type '***DATA REMOVED***'.
If the Data Interpreter has interpreted the Tableau data source incorrectly, close the spreadsheet,
and then clear the Cleaned with Data Interpreter check box from the Data Source page.
If the Tableau data source continues to be interpreted incorrectly or for general information
about why some data was removed by the Data Interpreter, refer to
Resolving Common Issues with Data Interpreter Results
Help Tableau improve the Data Interpreter by emailing your file to support@tableau.com
or filing a support request with an attached file at:
Key for the Data Interpreter
Heart_new2_csv
Ready
Accessibility: Good to go
100%
Search
ENG
IN
11:14
16-02-2026

GROUP PHOTO

DEMO LINK :

https://drive.google.com/file/d/1_NhdIjF4HXr1sTDEIq3QrBiXuvF-6wbN/view?usp=drivesdk