

Tableau



Introduction to Tableau



Learning Objectives

By the end of this lesson, you will be able to:

- 🕒 Explore Tableau Public and Tableau Dashboard
- 🕒 Learn how to connect, open, and discover sections in the Tableau interface
- 🕒 Analyze how to connect to different types of files used to import data



Business Scenario

ABC is a software development company. The organization presents data and progress to the clients using data visualization. The majority of the clients have indicated that they have numerous issues with the accuracy and consistency of their visualizations.

The company decided to go forward with the Tableau tool. This will help the organization optimize the progress and present the data through visualization more effectively.

The company will now explore the Tableau tool, types of files, Tableau Public, and Tableau Desktop.





Connect, Open, and Discover Sections

Discussion: Introduction to Tableau

Duration: 10 minutes



- What are the different types of file formats used to import data in Tableau?
- How does Tableau outperform other data visualization and analytics tools?
- What are data connectors?

Tableau

Tableau is a popular tool and is used widely in the industry.

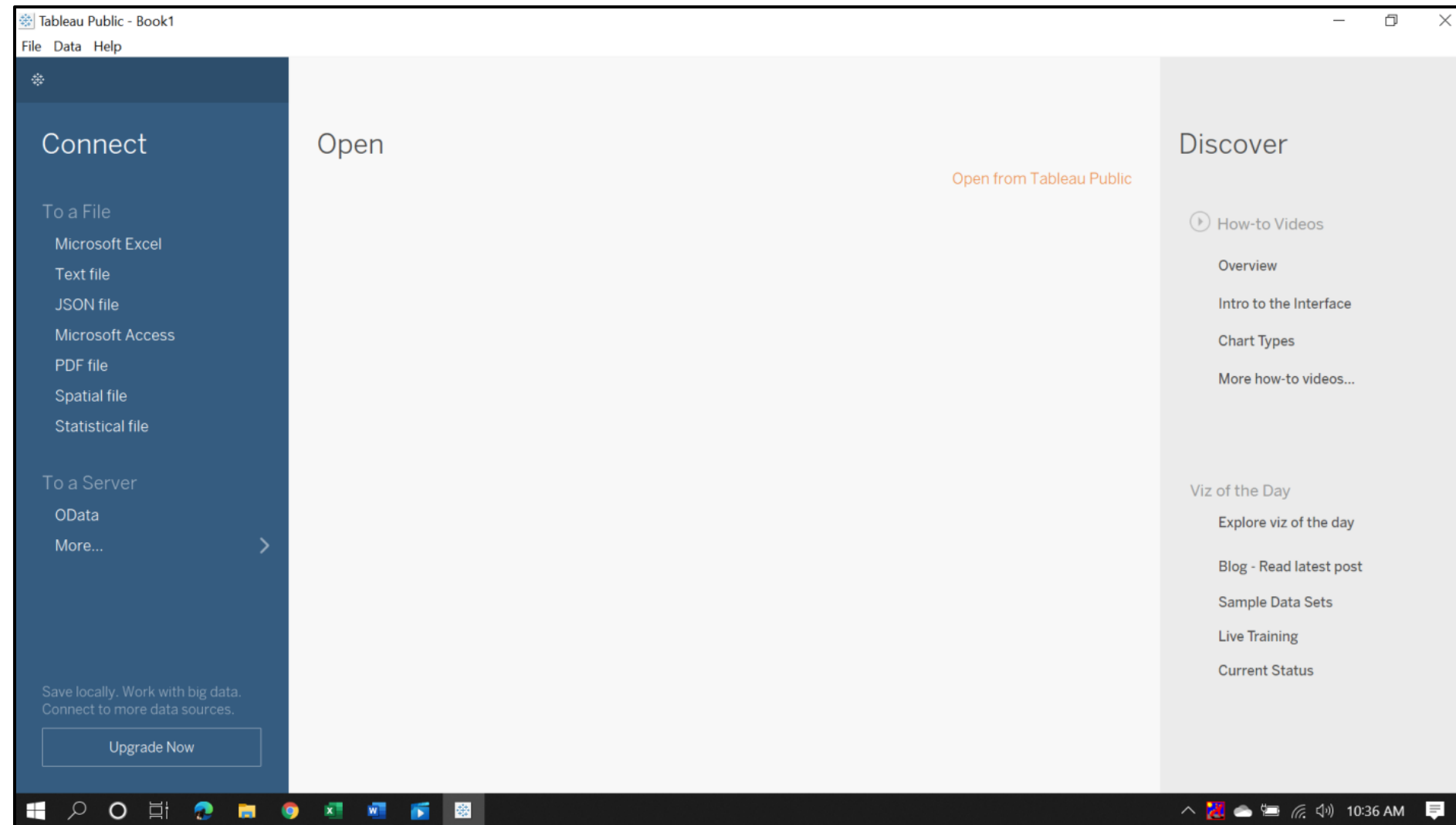


- Tableau allows the evaluation of raw data in the form of reports and graphs.
- One of the most significant aspects of Tableau is data blending.
- Tableau helps in handling a large amount of data.

Tableau is a data visualization application that allows for advanced computing, data blending, and dashboarding to create amazing data visualizations.

Tableau: Welcome Screen

Tableau Public is a free platform for exploring, creating, and sharing data visualizations.



When Tableau Public is accessed, the first screen to appear is Tableau Workspace (Welcome screen).

Tableau: Welcome Screen

Below are the three main components of the Welcome Screen:



Connect pane



Open pane



Discover pane

Discover Section

It helps one connect with the Tableau community and access training videos and blogs.

This section has two subsections, namely:



How-to Videos



Viz of the Day

Discover Section: How-to Videos

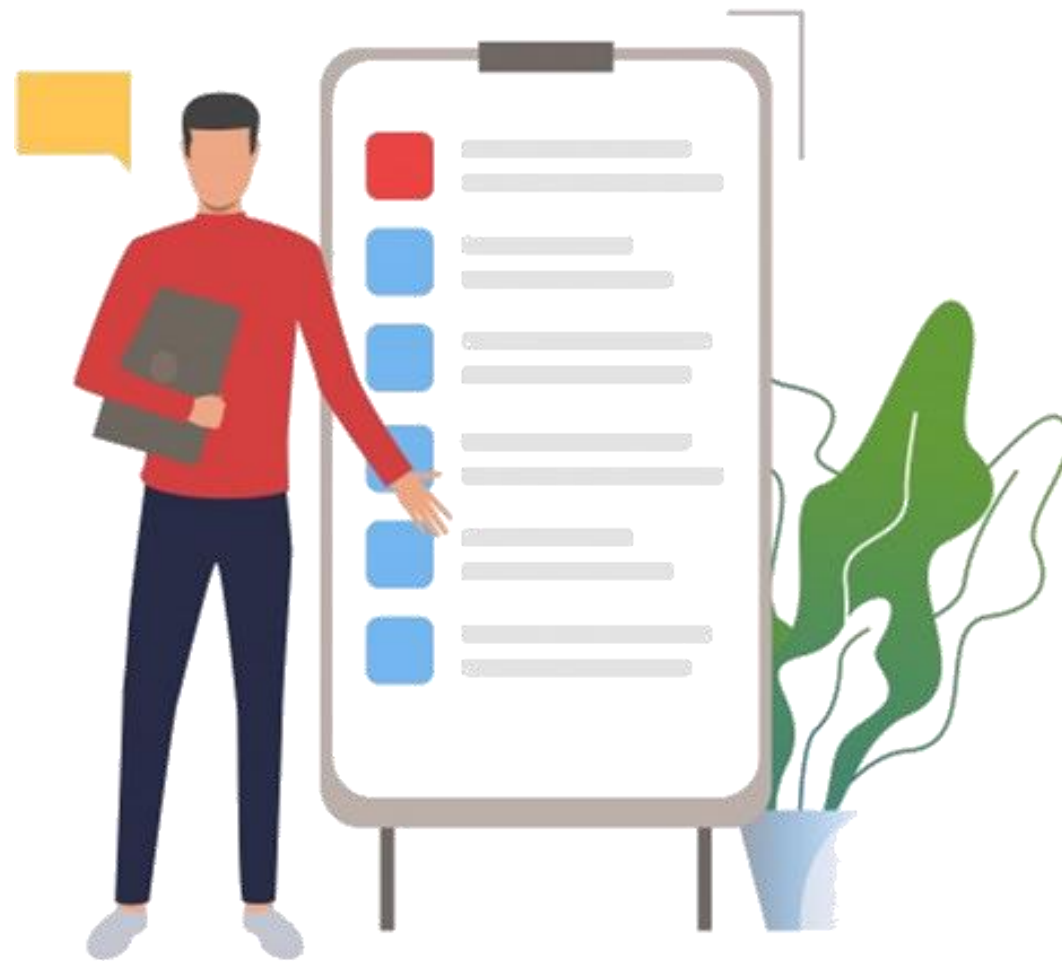
These are instructional videos that help end-users navigate the Tableau platform.



- Instructional videos are publicly available in the resources section.
- When any video is clicked, it takes the user to the resource page of Tableau.

Discover Section: Viz of the Day

It lists a few selected visuals for the day. The list changes daily, with different dashboards and stories.

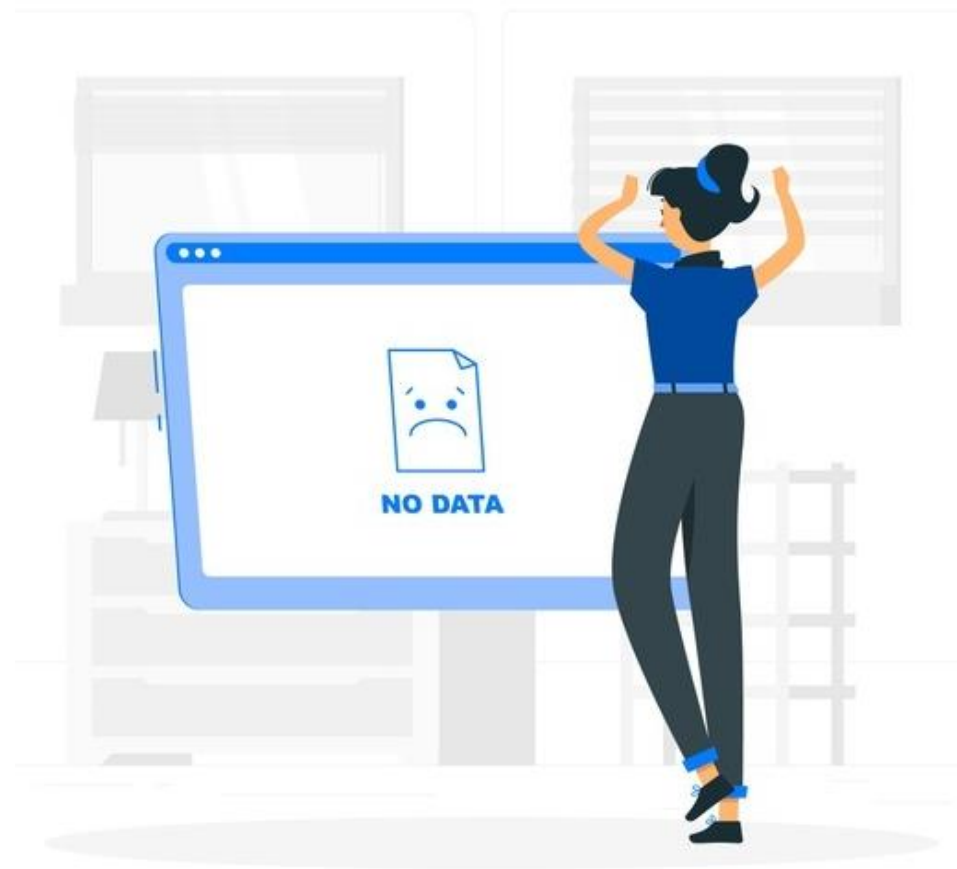


It also has links to Tableau Public's blogs.

Tableau Public's blogs are a great source for gaining insights and information on data visualization and Tableau.

Open Section

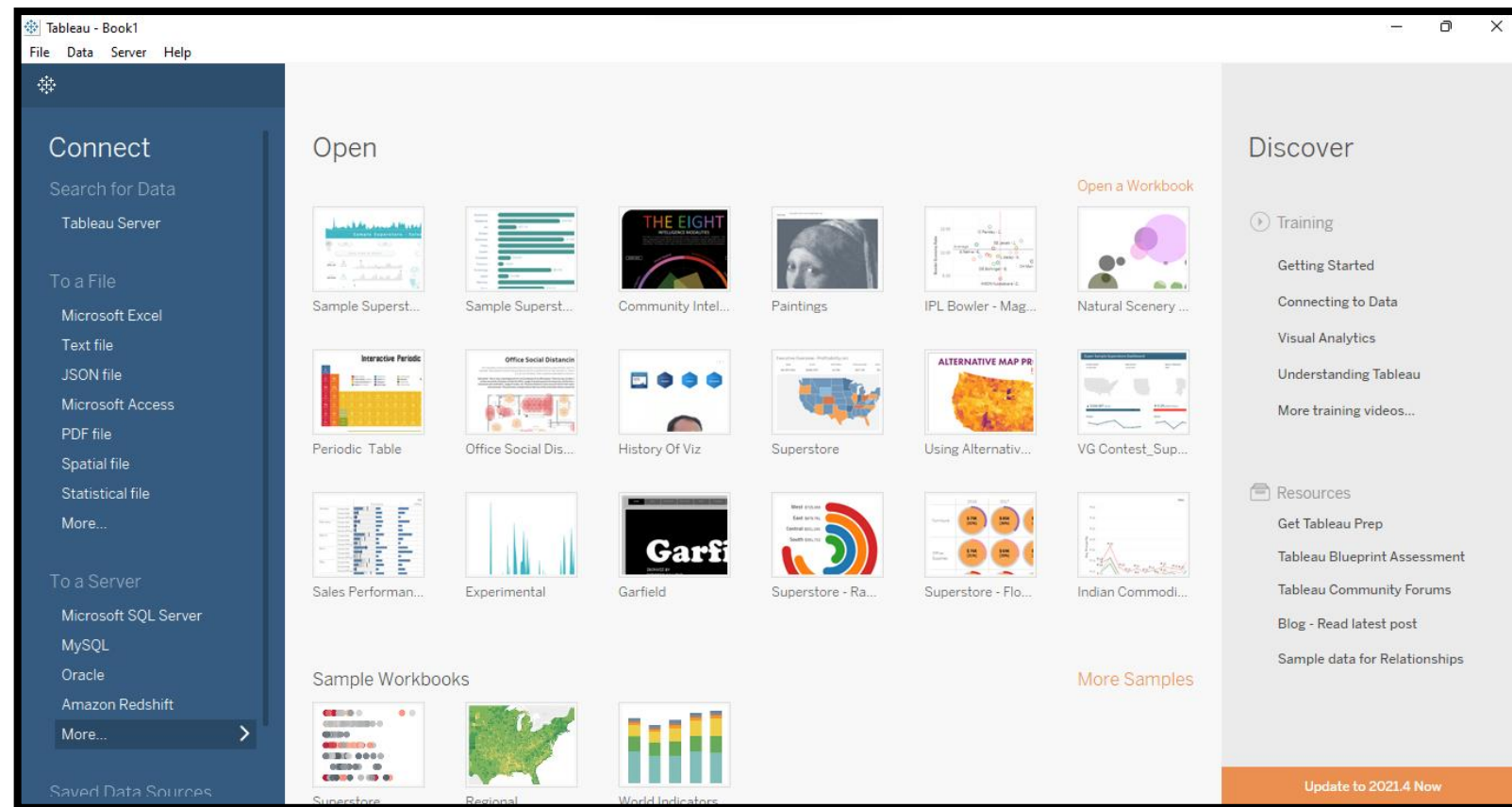
It shows the recently opened files along with sample dashboards.



The area will be empty if Tableau is opened for the first time, as there may not be any recently opened files.

Connect Section

It is used to import data to create visuals.



Various data sources can be connected through the pane visible on the left of the screen.

The list of data sources is available under the *To a File* and *Server* categories.



Connect: Different Types of Files Used to Import Data

Connect Section

The connect section imports or connects to different types of files on a local machine or a server.

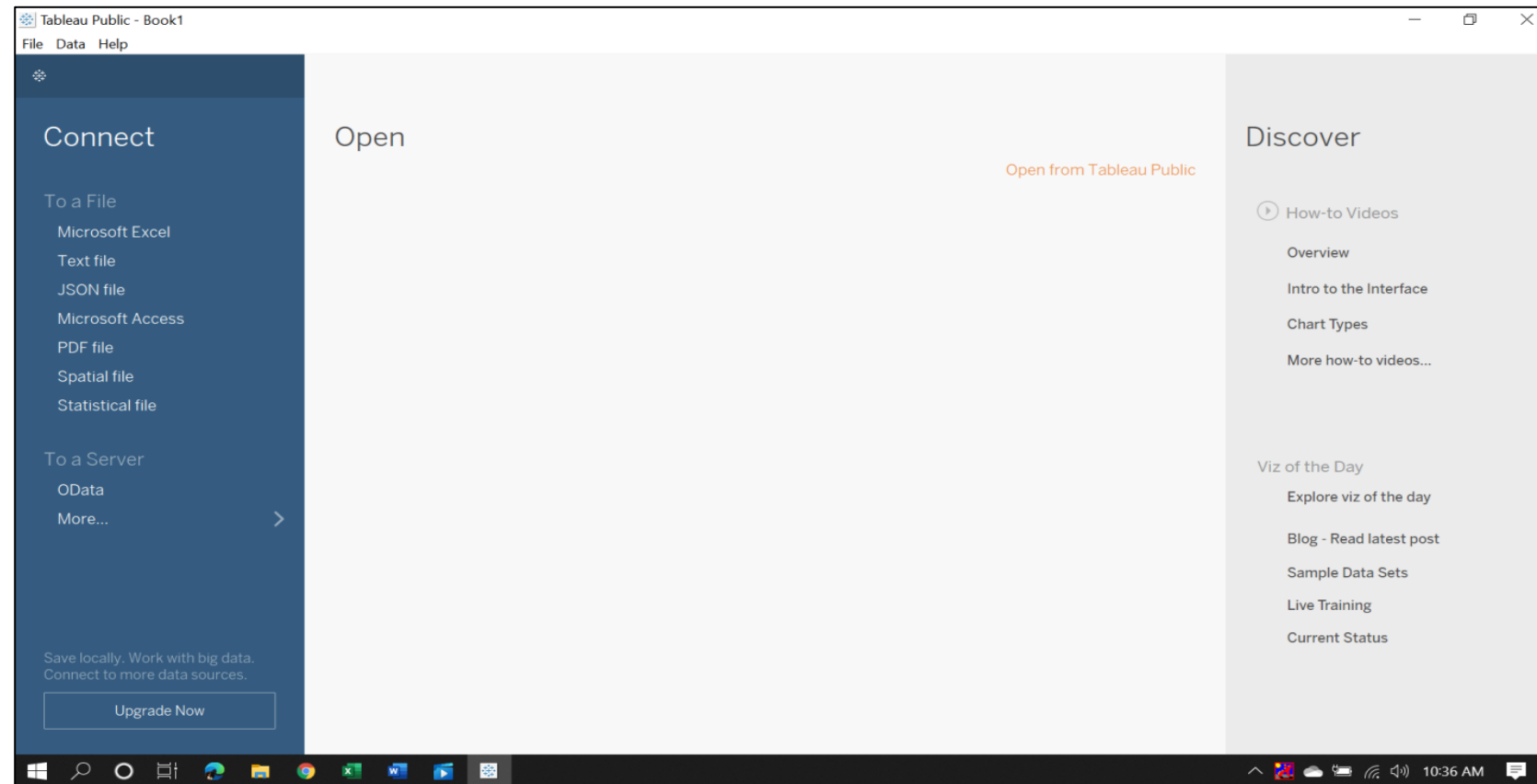


Tableau supports different types of file formats, such as Microsoft Excel, text files, JSON files, Microsoft Access, pdf files, spatial files, and statistical file formats.

Microsoft Excel File

Tableau supports different types of Excel files, including:

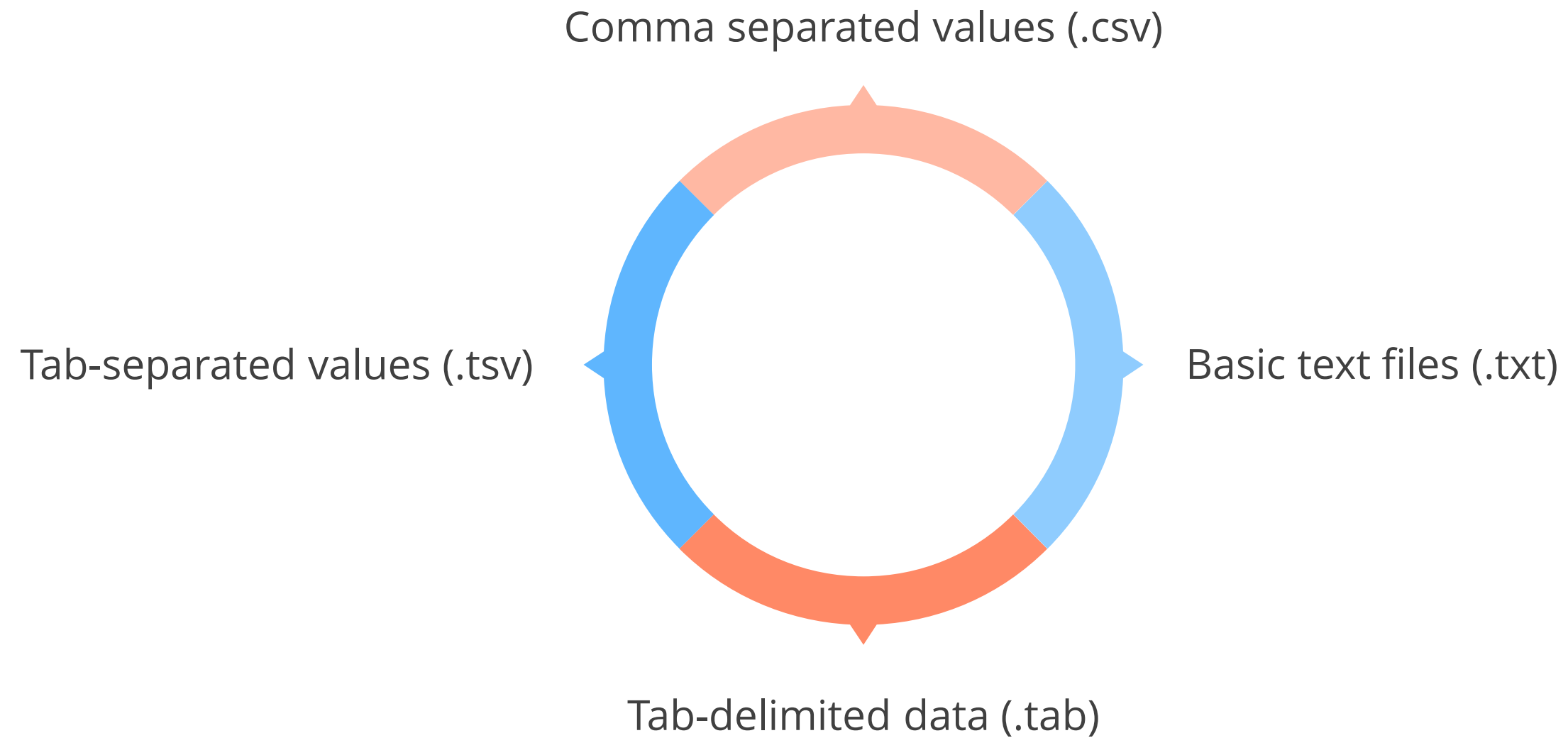
.xls

.xlsx

.xlsm

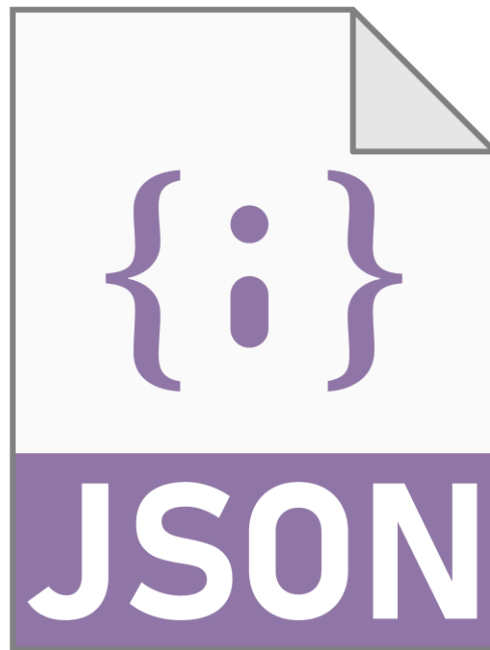
Text Files

The following are the different types of text files:



JSON Files

Tableau also supports the JavaScript object notation (JSON) file format.

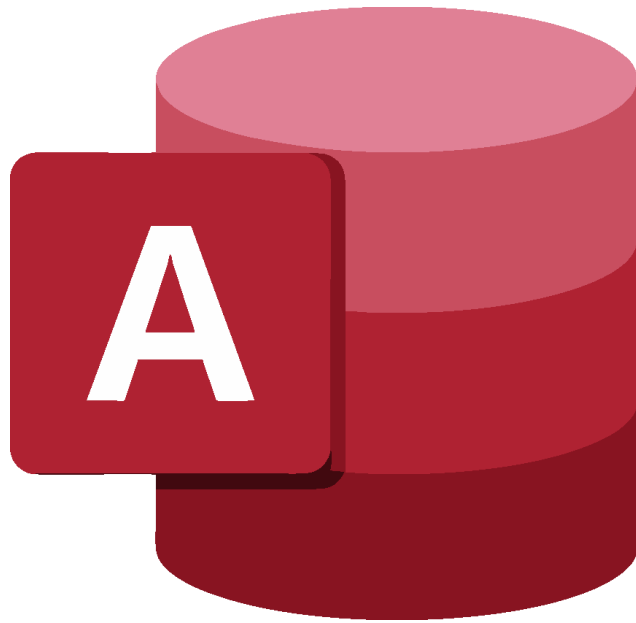


- It transmits the data between a web application and a server.
- To connect to the JSON file type in Tableau, select Schema levels to view and analyze.

Seek Tableau's help to get a detailed understanding of working with JSON files in Tableau.

Microsoft Access

Microsoft Access manages large amounts of data that cannot be worked on spreadsheet applications.



It is an information management tool, or a relational database used for reporting and analysis.

It is used in Tableau when the size of the data is larger than a spreadsheet.

PDF Files

To connect a pdf file, specify the range of pages to be scanned for tables.



The tables will be scanned from left to right.

Tableau does not support right-to-left (RTL) languages and displays the data in reverse order if imported.

Spatial Files

The different types of spatial files are:



Shapefiles



GeoJSON files



MapInfo tables



TopoJSON files



KML files



Esri file Geodatabases

Statistical File Formats

The different types of statistical file formats are:

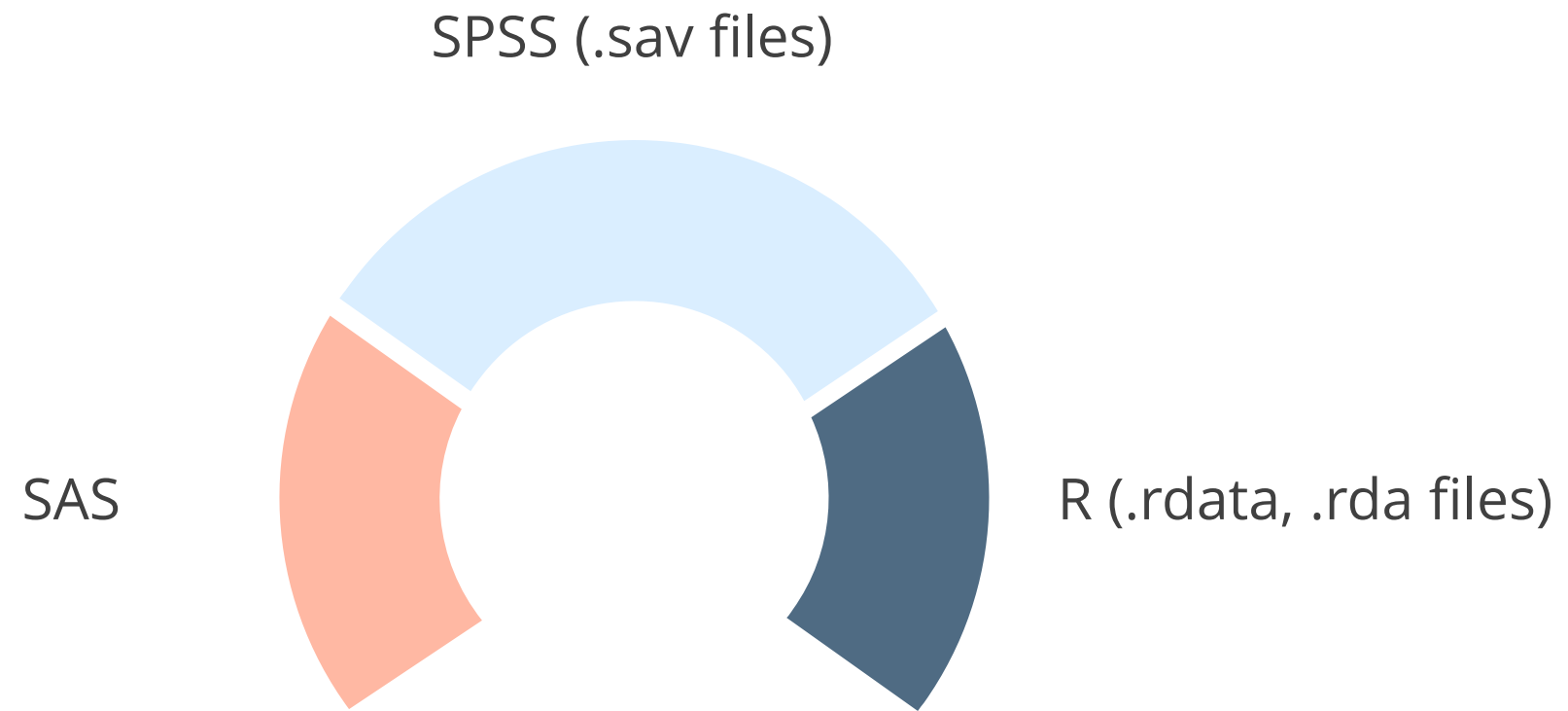


Tableau reads data based on a file's character encoding or information in an input file.



Data Connectors

Data Connectors

The data connectors used in Tableau simplify the process of accessing real-time enterprise data.



Types of Connectors

The different types of connectors available in Tableau Public are as follows:



OData

OData:

This is a powerful set of certified data connectors to access enterprise data.



Google Drive

Google Drive:

This connector in Tableau supports Google-shared drives.

Types of Connectors

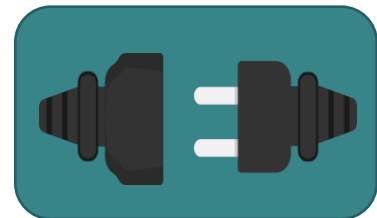
The different types of connectors available in Tableau Public are as follows:



Google Sheets

Google Sheets:

Google Sheets are connected to Tableau using a data connector.



Web Data Connector:

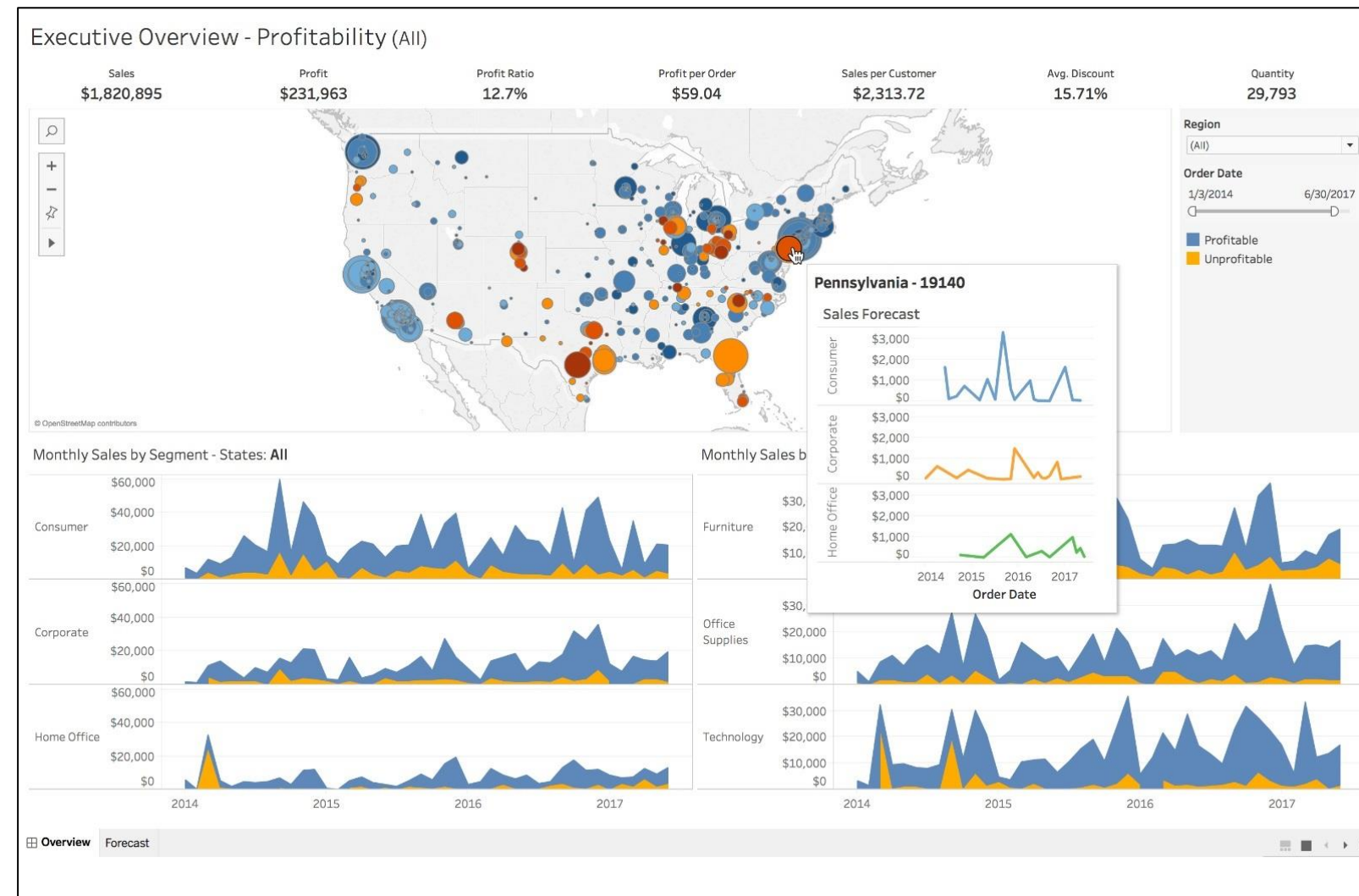
Web data connector provides accessible data connection over HTTP.



Introduction to Tableau Public and Tableau Desktop

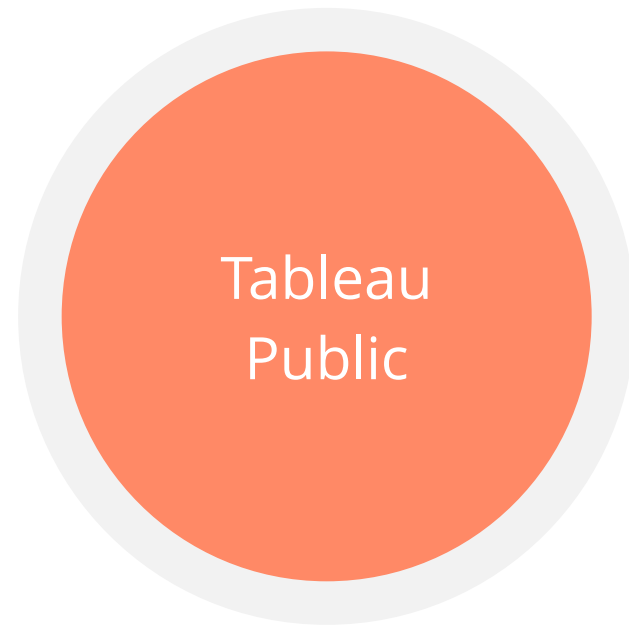
Tableau

Tableau visualization software comes in two versions: free and premium.



Tableau

There are two versions of Tableau:



Free version



Paid version

Tableau Public

Tableau Public is a free version of Tableau visualization software that offers limited features.



It connects seamlessly to multiple types of data, like files and data connectors.

Tableau Public Feature

It builds visuals with public data for personal use.

It operates in a cloud server and does not provide integration with other Tableau products.

It needs an internet connection.

It does not provide data privacy or security.

Tableau Desktop

Tableau Desktop is a fully loaded, paid developer version of Tableau visualization software.



- Offers many advantages, including better security and the provision to work offline
- Connects seamlessly to different types of data
- Supports many file types
- Supports around 60 types of data connectors
- Is used by business organizations and teams for building visuals

Tableau Desktop

It provides integration with two other Tableau products, namely:



Tableau Server

The diagram consists of two hexagonal shapes. The left hexagon is orange and contains the text 'Tableau Server'. The right hexagon is teal and contains the text 'Tableau Online'. Both hexagons have rounded corners and are positioned side-by-side in the lower half of the slide.

Tableau Online

Tableau Public vs. Tableau Desktop

Difference between Tableau Public and Tableau Desktop:

Tableau Public

- Offers a free license
- Offers fewer file type and data connector type options
- Mandates files to be published online

Tableau Desktop

- Offers a paid license
- Offers more file type and data connector type options
- Supports saving visuals in local machines

Tableau Visualization Software

Tableau visualization software offers both free and paid versions.



However, in this course, visualizations are created with Tableau Public.

Discussion: Classical Architectures

Duration: 10 minutes



- What are the different types of file formats used to import data in Tableau?

Answer: Tableau supports formats like Excel, CSV, Text files, JSON, statistical files, databases, and cloud-based data sources for importing data.

- How does Tableau outperform other data visualization and analytics tools?

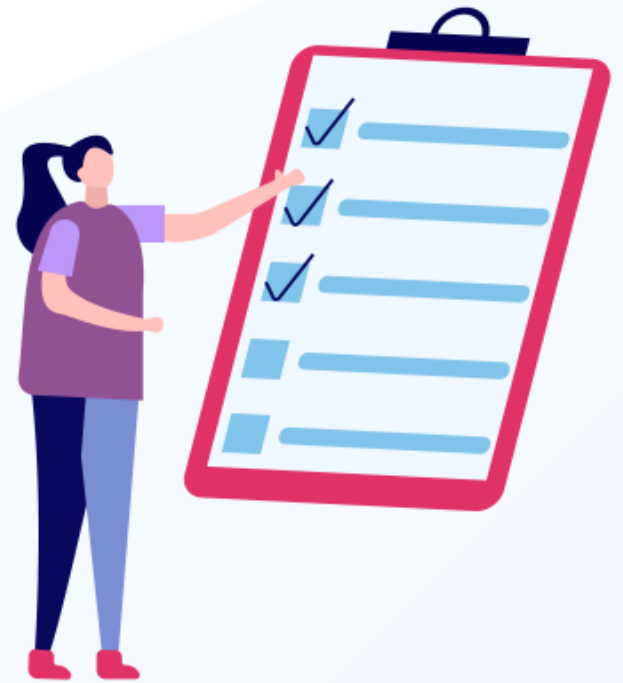
Answer: Tableau differentiates itself by providing an intuitive interface, extensive data connectivity options, advanced analytics features, and a strong user community, making it a standout choice for data visualization and analytics.

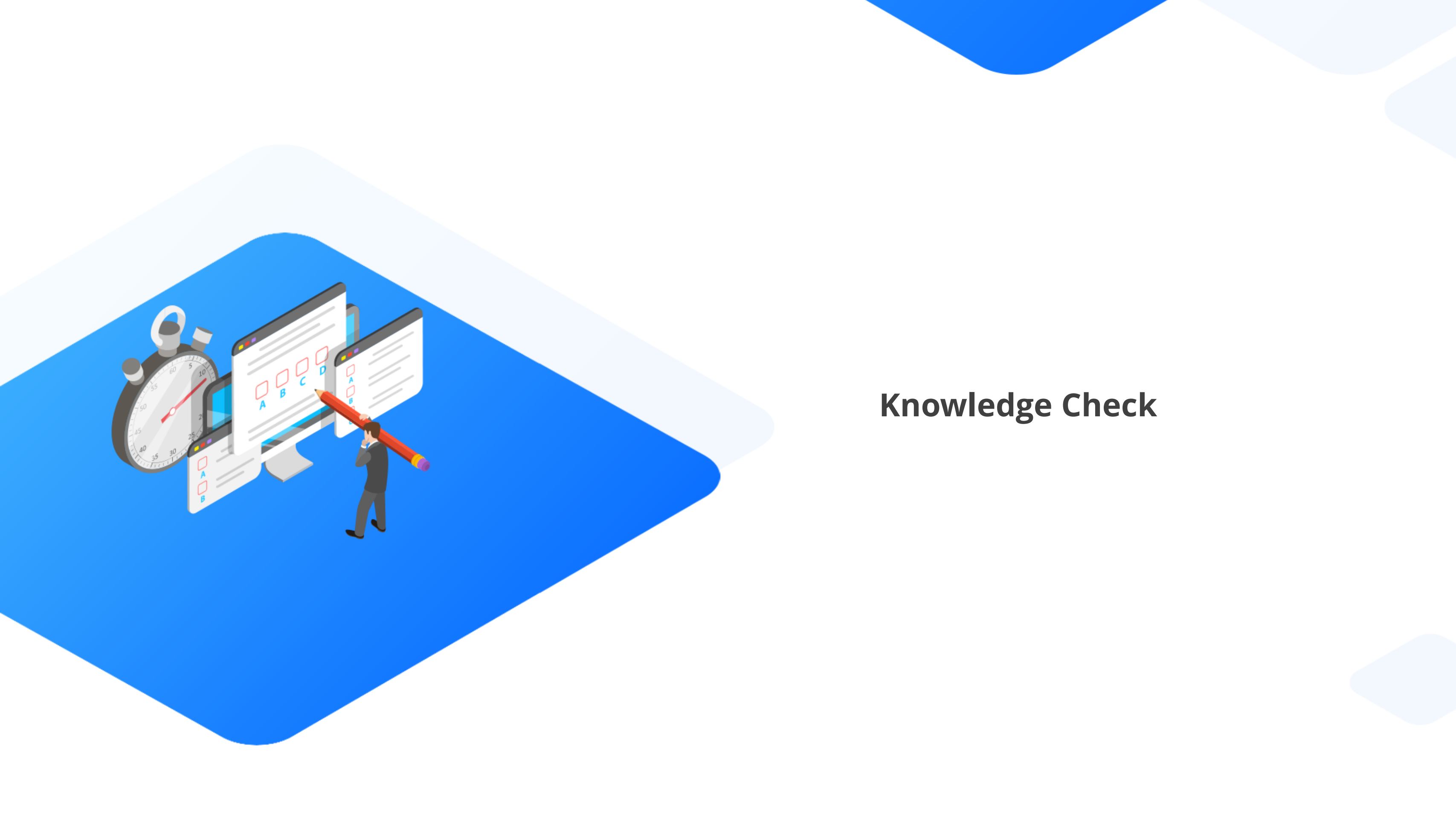
- What are data connectors?

Answer: Data connectors are software components or modules that facilitate data integration and connectivity between different data sources and applications.

Key Takeaways

- 🕒 The free version is called Tableau Public, and the paid version is called Tableau Desktop.
- 🕒 The Connect section in the Tableau workspace is used to import data.
- 🕒 The Open section shows recently worked Tableau workbooks.
- 🕒 The Discover section is composed of two subsections, namely, How-to Videos and Viz of the Day.





Knowledge Check

Knowledge Check

1

What are the sections present in the Tableau welcome screen?

- A. Connect pane
- B. Open pane
- C. Discover pane
- D. All of the above



Knowledge Check

1

What are the sections present in the Tableau welcome screen?

- A. Connect pane
- B. Open pane
- C. Discover pane
- D. All of the above

The correct answer is **D**

After launching the Tableau window, the start page opens, which consists of three main components: Connect pane, Open pane, and Discover pane.



Knowledge Check

2

Which is the most significant aspect of Tableau?

- A. Data blending
- B. Data visualization
- C. Data gathering
- D. None of the above



Knowledge Check

2

Which is the most significant aspect of Tableau?

- A. Data blending
- B. Data visualization
- C. Data gathering
- D. None of the above



The correct answer is **A**

The most significant aspect of Tableau is data blending.

Knowledge Check

3

Which is the paid version of Tableau visualization software?

- A. Tableau data blending
- B. Tableau Public
- C. Tableau Desktop
- D. Data connectors



Knowledge Check

3

Which is the paid version of Tableau visualization software?

- A. Tableau data blending
- B. Tableau Public
- C. Tableau Desktop
- D. Data connectors

The correct answer is **C**

Tableau Desktop is a fully loaded paid developer version of Tableau visualization software.





Thank You