Aim: Experiment to study any one BI tool such as Pentaho, Tableau and QlikView

To Do:
1. Load the dataset in the tool.
2. Perform visualization (build Dashboard)
3. Perform data analysis.
4. Create a Report

Comparison of Pentaho, Tableau and Qlikview:

Pentaho, Tableau, and QlikView are all business intelligence (BI) tools that help organizations make better data-driven decisions. While all three tools have similar functionality, they differ in terms of their approach, features, and pricing.

Approach:
Pentaho is a comprehensive open-source BI platform that includes a range of features for data integration, analytics, reporting, and dashboards. Pentaho focuses on providing a complete end-to-end BI solution.
Tableau, on the other hand, is a data visualization tool that emphasizes ease-of-use, interactivity, and visual appeal. Tableau is designed to enable business users to create interactive dashboards and reports without the need for technical expertise.
QlikView is another data visualization tool that emphasizes data exploration and discovery. QlikView enables users to explore data interactively and create their own visualizations, dashboards, and reports.

Features:
Pentaho offers a range of features including data integration, data analytics, reporting, dashboards, and predictive analytics. Pentaho also offers a variety of deployment options including on-premise, cloud, and hybrid environments.
Tableau's key features include data visualization, dashboard creation, and collaboration. Tableau is known for its ease-of-use, flexibility, and interactive capabilities.
QlikView's features include interactive dashboards, ad-hoc reporting, and data discovery. QlikView is known for its in-memory data engine, which allows users to explore data quickly and create visualizations on the fly.

Pricing:

Pentaho is an open-source tool, so it is free to use. However, there is a paid version that includes additional features and support options.

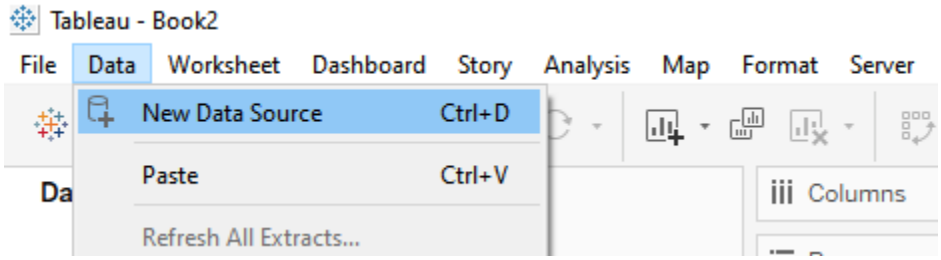
Tableau offers a range of pricing options including a free trial, a personal edition, and several enterprise-level options. Tableau's pricing is generally higher than Pentaho's, but it offers more advanced features.

QlikView's pricing is similar to Tableau, with a free trial and several enterprise-level options. QlikView's pricing is generally higher than Pentaho's, but it offers a more advanced feature set.

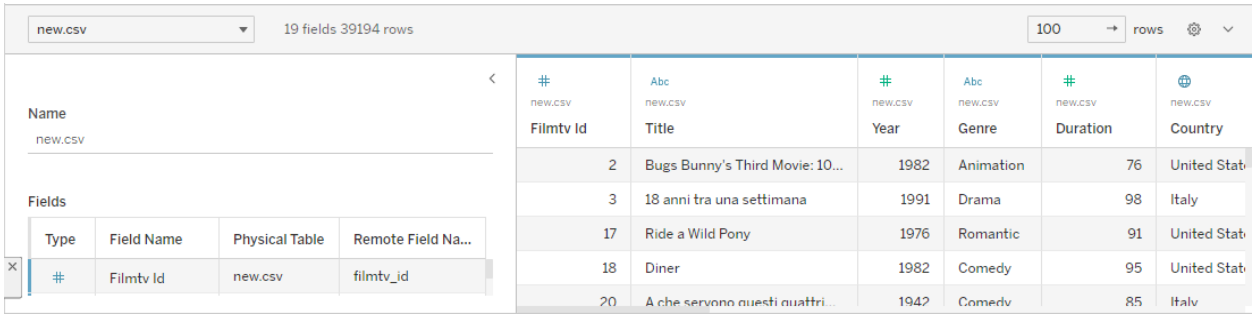
In summary, Pentaho is a comprehensive open-source BI platform, Tableau is a user-friendly data visualization tool, and QlikView is a data discovery tool. Each tool has its strengths and weaknesses, and the choice of tool will depend on the specific needs of the organization. Pentaho may be the best choice for organizations looking for a complete BI solution, Tableau may be the best choice for those looking for a user-friendly data visualization tool, and QlikView may be the best choice for those looking for a powerful data discovery tool.

Tableau

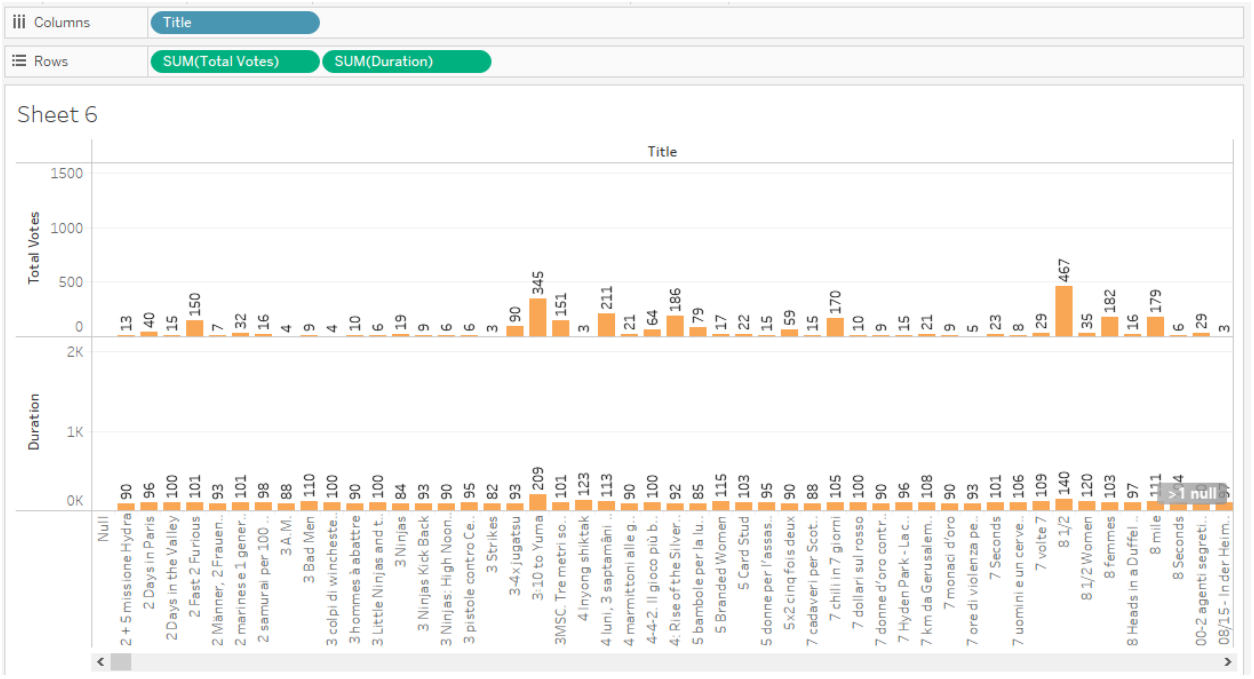
- **Loading dataset**
- Creating a new data source



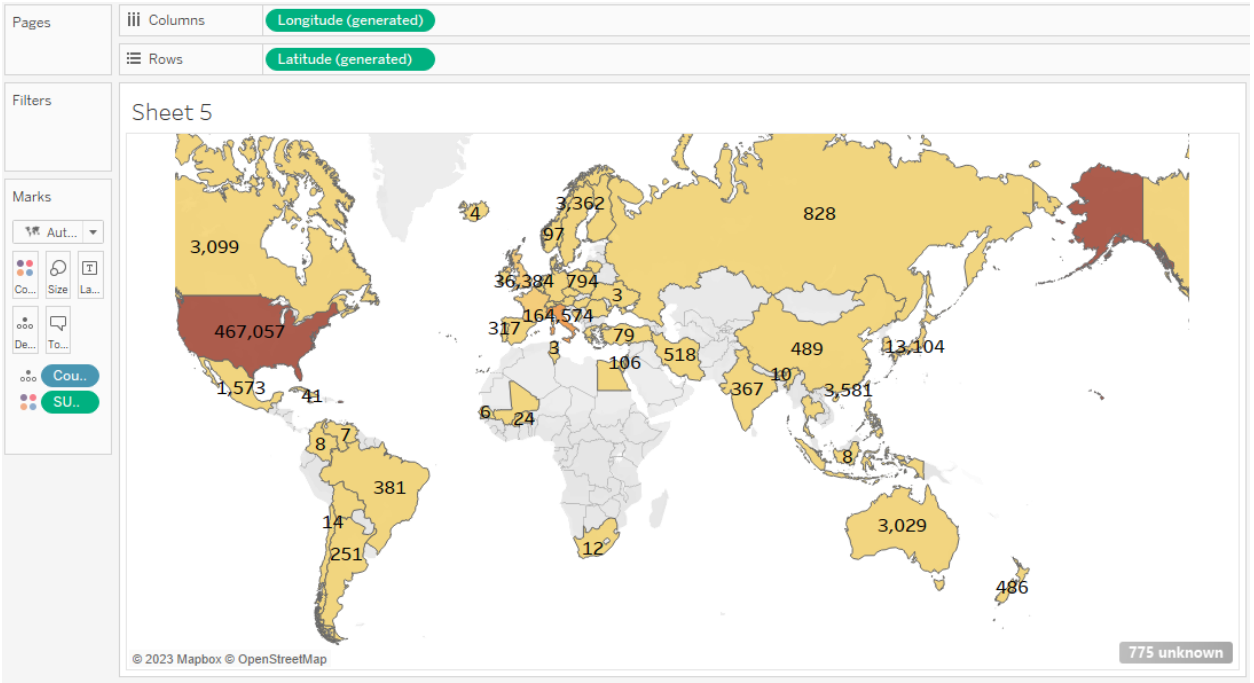
- Upload the dataset from your desktop



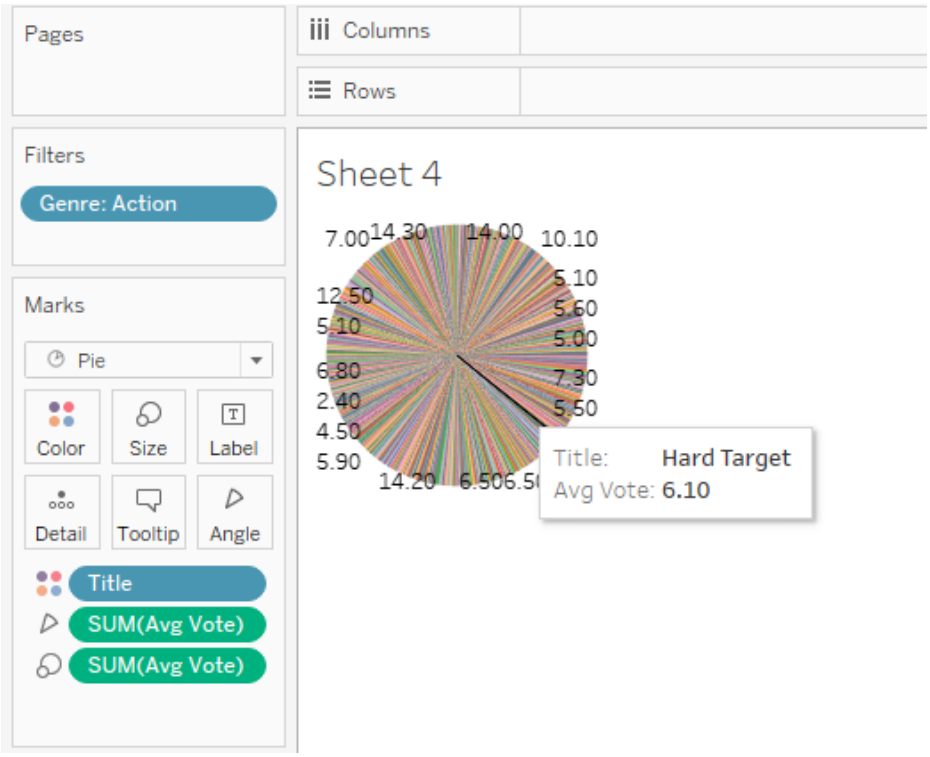
- **Visualization**
- Bar graph showing sum of total votes and duration for each movie title



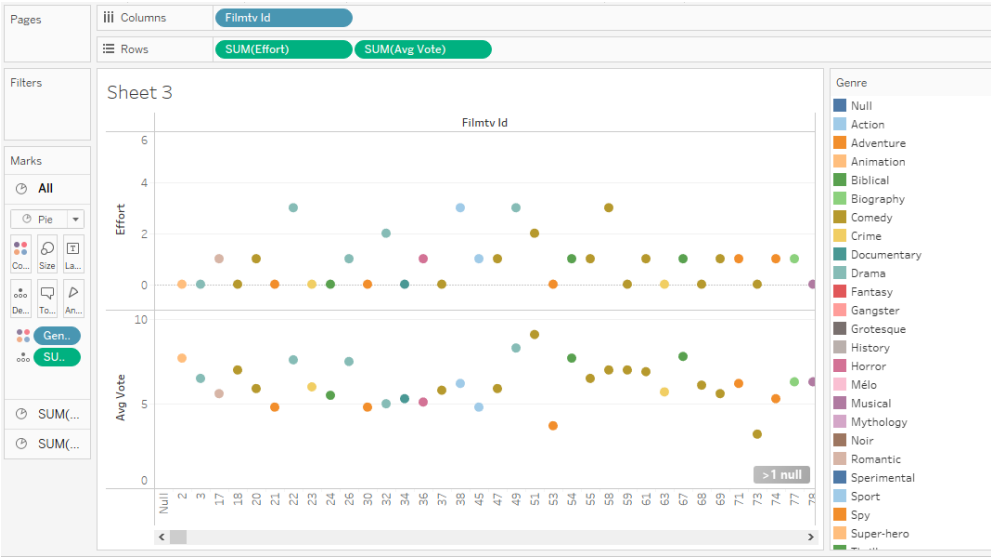
- Using Map to show avg votes of movies country wise



➢ The following graph shows the Pie Chart which displays the total votes the movies have received.



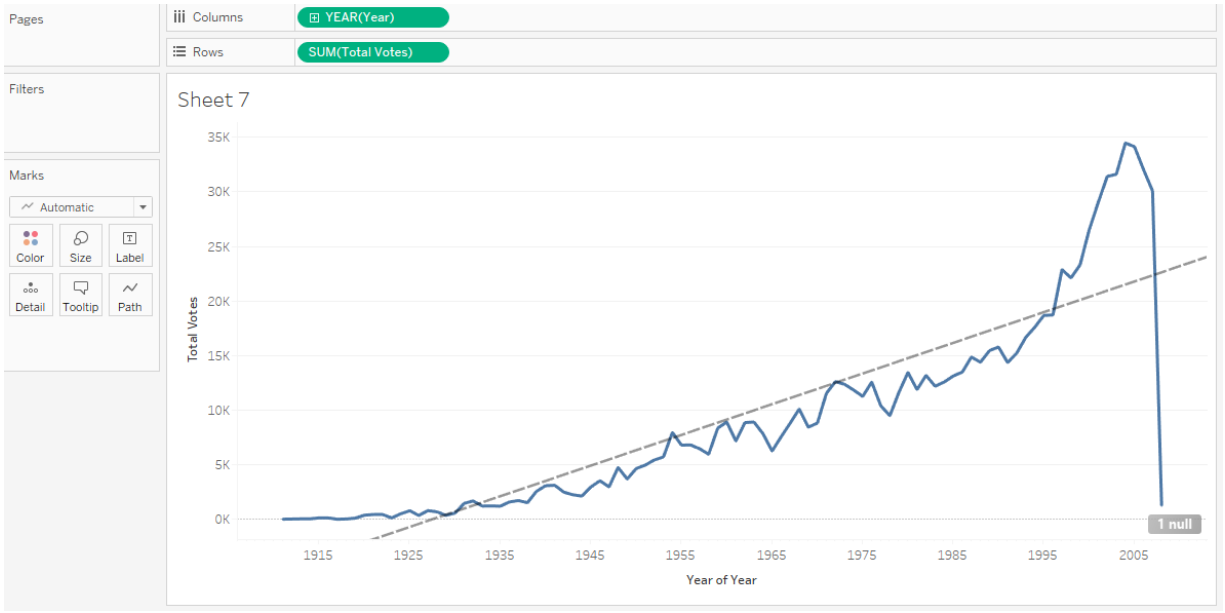
➢ Following graph shows the sum of average votes and effort for each movie



Analysis

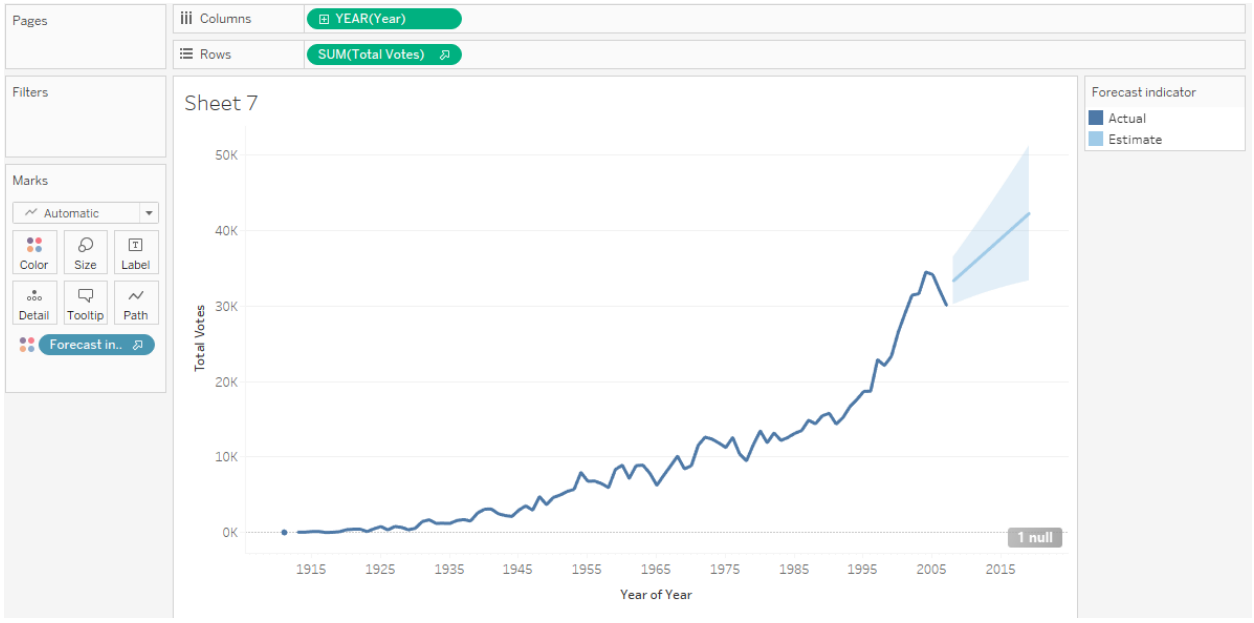
Trend Line

➢ It shows the average line for total number of votes each year.



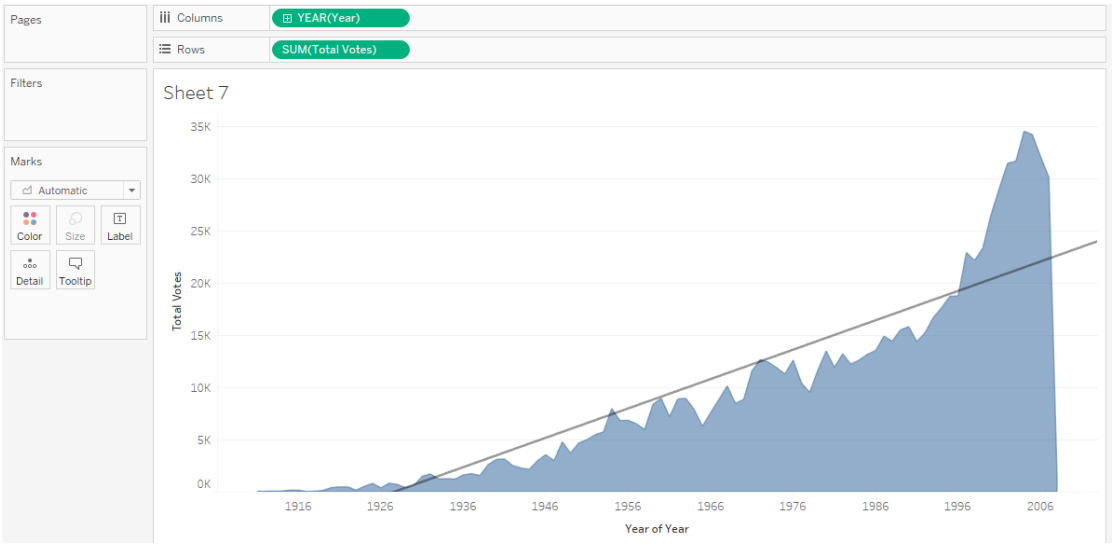
Forecast Indicator

➢ The following chart shows the predicted values of total votes received by the movie. It predicts the total number of votes that movie will receive in that particular year.



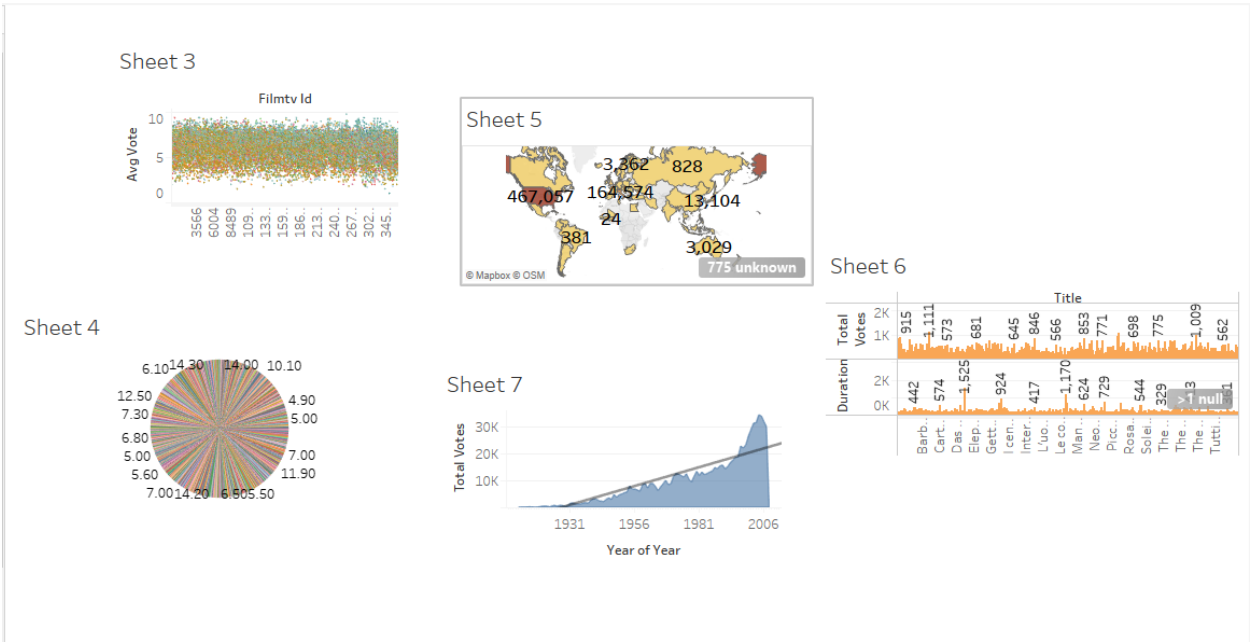
Stack marks

➢ To show the total number of votes per year cumulatively along an axis.



DashBoard

➢ DashBoard displays the summary of each graph plotted. It makes it easy to locate all graphs at one place.



Report:

Introduction

Tableau is a powerful business intelligence tool that allows organizations to visualize and analyze their data in an interactive and user-friendly way. In this report, we will provide an overview of Tableau's key features and benefits, as well as some examples of how it can be used to improve business decision-making.

Overview of Tableau:

Tableau is a data visualization and analysis tool that enables users to create interactive dashboards, reports, and visualizations from various data sources. With Tableau, users can easily connect to and integrate data from multiple sources, including spreadsheets, databases, and cloud services. Tableau provides a wide range of visualization options, including charts, graphs, maps, and tables, that can be customized and combined to create compelling and insightful visualizations.

Key features and benefits of Tableau:

Interactive Dashboards: Tableau allows users to create interactive dashboards that can be customized and shared with others. Dashboards can be designed to display key performance indicators (KPIs), track progress against goals, and provide real-time insights into business operations.

Powerful Analytics: Tableau provides a range of powerful analytical tools that allow users to analyze data and identify trends and patterns. These tools include statistical analysis, predictive analytics, and data blending.

Data Visualization: Tableau provides a range of visualization options, including charts, graphs, maps, and tables, that can be customized and combined to create compelling visualizations. These visualizations make it easy to identify trends, patterns, and outliers in data.

Collaboration: Tableau enables users to collaborate and share insights with others. It provides a range of collaboration tools, including commenting, annotations, and sharing options, that make it easy to share insights with colleagues and stakeholders.

Examples of how Tableau can be used:

Sales Analysis: Tableau can be used to analyze sales data and identify trends and patterns. By creating interactive dashboards and visualizations, sales teams can gain insights into customer behavior, product trends, and sales performance.

Marketing Analysis: Tableau can be used to analyze marketing data, including website traffic, social media engagement, and email campaigns. By creating interactive dashboards and visualizations, marketing teams can gain insights into customer behavior, campaign performance, and ROI.

About Dataset:
For this experiment we have chosen the dataset on Netflix movies and Shows. It contains the data about movies and shows such as their name, genre, total votes etc.
The dataset contains the columns such as filmtv_id, title, year, duration, country, directors, actors, avg_votes, critics_vote, public_votes, total votes, description, notes, humor, rhythm, efforts, tension, erotism

Link of dataset: Netflix Dataset

Implementation and Result:

Tableau is a data visualization and analysis application that allows users to create interactive dashboards, reports, and visualizations from a variety of data sources. Tableau was used to visualize and analyze Netflix. Netflix is a massive platform with a massive dataset to work with. To demonstrate different features, we used graphs such as scatter plots, pie charts, bar graphs, and maps. For example, we used a map to show average votes by country. This same thing would have been difficult to understand on an excel sheet, but we were able to understand it better because we visualized it.

We examined some of the data's characteristics after visualizing it. We forecasted the votes for future years by analyzing the pattern of total votes per year. We also generated trend lines, which helped us determine which movies are currently trending. In this way, we examined various patterns of Netflix shows from the dataset.

Conclusion of the report:
Tableau is a powerful tool that can help organizations gain insights into their data and make better business decisions. With its powerful analytical tools, customizable visualizations, and collaboration features, Tableau is an essential tool for any organization that wants to make data-driven decisions.

Conclusion: In this Experiment we have performed comparison between different types of BI tools such as Pentaho, Tableau and QlikView in detailed manner. After comparing them we visualized the dataset in Tableau in different forms of graphs, pie charts and many more. It helps the user to understand the data more easily rather than reading it from a csv or excel file. After performing Visualization we created a detailed report on how we performed the whole process.