
Practice: Using visualizations to deliver impactful insights

Activity: Sketch potential visualizations to meet business goals

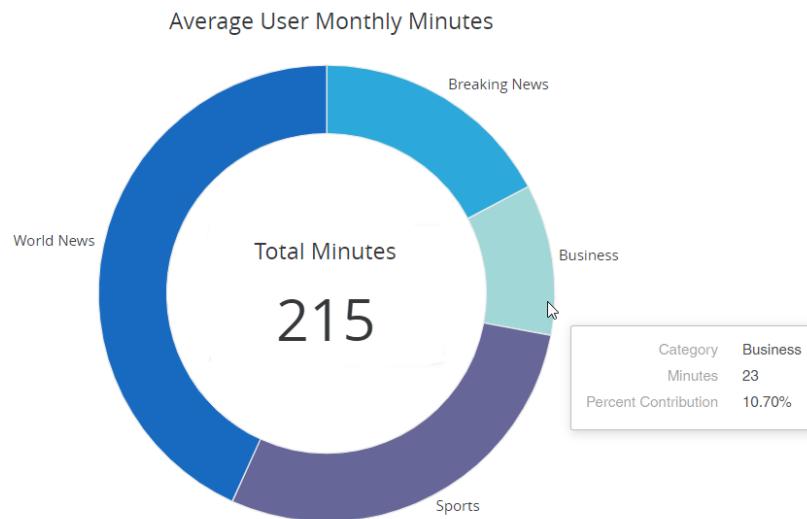
When you want to answer a business question, it is often difficult to immediately know which visualization is the most efficient and effective. Although the visualization you choose depends on the type of analysis you need to conduct, there might be several that satisfy your needs. To identify the optimal visualization that matches your data and analysis goals, you can sketch out potential visualizations.

For each scenario below, use pen and paper to sketch a visualization that meets the analysis goals. Then, compare your sketches to the sample visualizations provided in the answers section, and see how the sample visualization meets the analysis needs.

- A subscription-based online news source wants to understand the popularity of content categories on their website, so that they can improve content in the less-popular categories and increase subscription retention. Access to the website content is based on a monthly subscription. The data tracks the number of monthly minutes each visitor spends on pages in each content category. The categories include: Breaking News, World News, Sports, and Business.
 - A law firm wants to understand the amount of time lawyers spend each week preparing for initial client meetings. The office has data on the average number of hours each lawyer spends per week on preparation, and a goal of 4-5 hours per week. The office wants to understand the distribution of data to identify the most common preparation time commitment.
 - A retail chain wants to track profit trends throughout the year to identify low-performing months. The organization has a high-profit campaign that they can introduce during low-profit months to stabilize profit performance. To ensure that profit trends are similar every year, the retail chain wants to compare fluctuations for three years.
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Activity sample answers

Subscription-based online news source



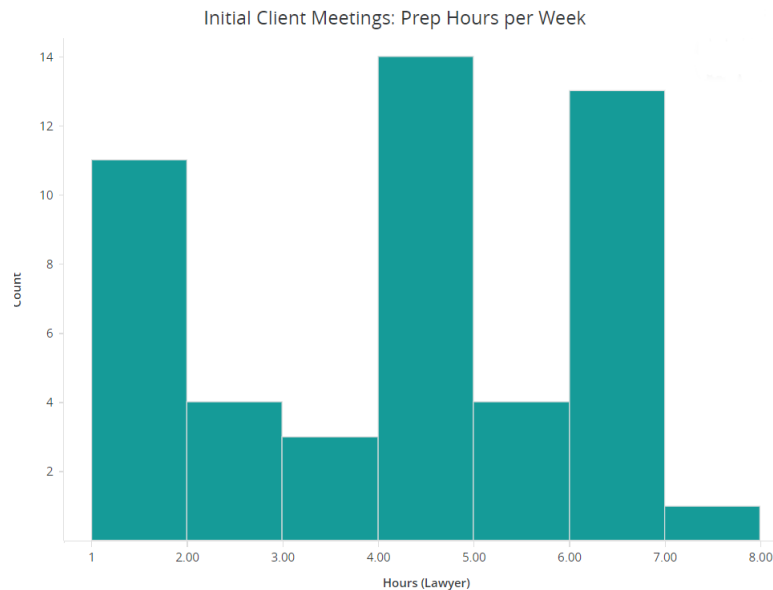
A ring chart is a good choice for part-to-whole analysis. In this example, you want to understand the time spent viewing each content category (the part), as well as the total monthly minutes users spend on the website (the whole). Each section of the ring represents a content category and is sized by the average monthly minutes that users spend in that category. You can also quickly identify the most- and least-popular categories. When you hover over a section of the ring, a tooltip displays the precise number of minutes and percent contribution for that content category.

You learn more about tooltips in the [Optimizing Visualizations to Guide Analysis](#) chapter of the [Departmental Analyst](#) learning path.

The ring chart shows that World News is the most popular content category and Business is the least popular. The company can use this as a starting point to further analyze the World News content's popularity and identify ways to improve the Business content to increase overall time spent on the website.

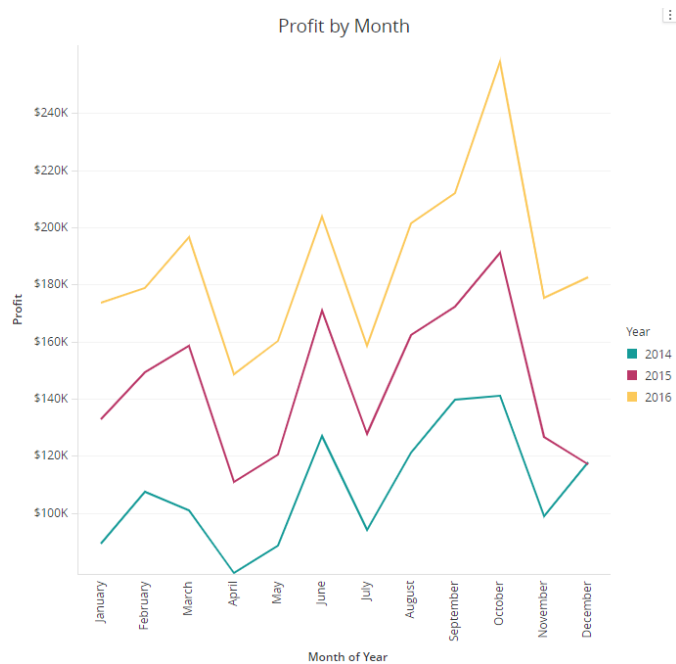
Notice that the white space in the center of the ring chart is filled with a KPI visualization that draws attention to the total average monthly minutes spent on the website, across all categories. It is not necessary to fill the center of a ring chart with a KPI, but it can be helpful depending on the business scenario.

Preparation time distribution at a law firm



A histogram conveys the distribution of a data value. In this case, you can use a histogram to view the distribution for the number of hours lawyers spend each week preparing for initial client meetings. The goal is for lawyers to spend 4-5 hours per week preparing for the meetings. Because a histogram shows the spread of all possible values and how often they occur, it makes it easy to see if most lawyers are meeting this goal and if not, how long most of them spend. You can see that most lawyers do spend 4-5 hours, but many also spend 1-2 hours or 6-7 hours. The law firm might want to conduct further analysis to figure out the reason for the variation in hours and how they can help more lawyers spend 4-5 hours.

Profit trends at a retail chain



A line chart displays trends in data over time. You can use a line chart to display annual trends in profit by month and compare the trends over multiple years. The example above displays three downward trends in profits in April, July, and November. The trend is identified in each of the three years displayed. The retail organization can use this analysis to introduce new marketing campaigns to stabilize profit generation throughout the year.
