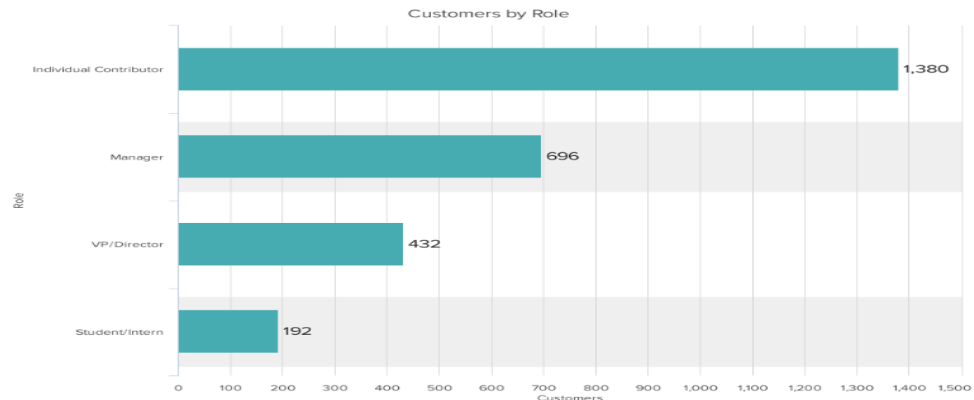**Explore all Charts types**

Submitted by: **Hurair**

Submitted to: **Usman Afridi**

1. For Comparing Values, we use the following Types of Charts.
    a. **Horizontal Bar Chart**
       It is used for different items comparison. While column charts show information vertically, and bar graphs show data horizontally. we can use both to display changes in data

    b. **Vertical Bar chart / Column Chart**
       Use to compare different groups or track changes over time Bar graph are useful when there are big changes over time. This chart is best for negative data
       e.g., at the start of the pandemic, online businesses saw a big jump in traffic. So, if you want to look at monthly traffic for an online business, a bar graph would make it easy to see that jump.
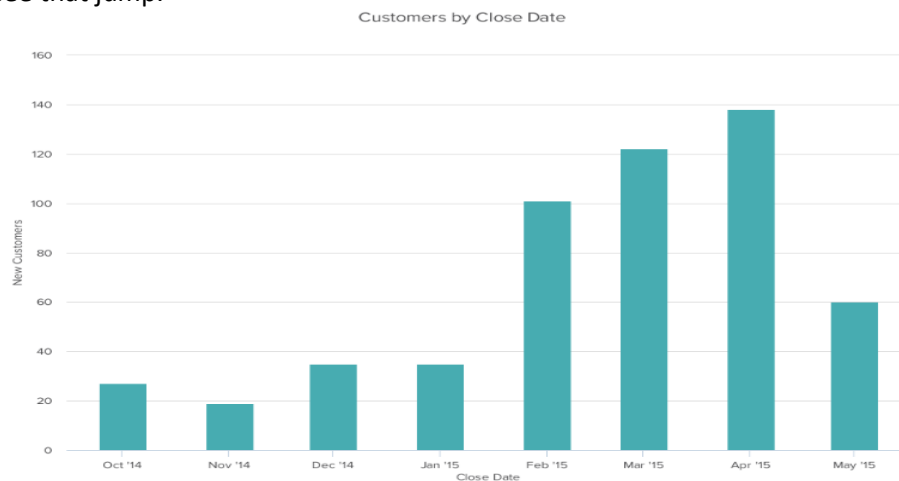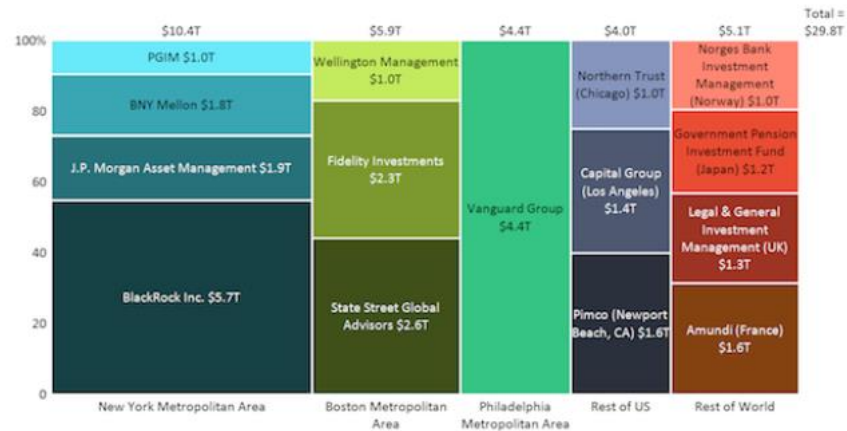

    c. **Mekko**
       Also known as a Marimekko chart, this type of graph can compare values, measure each one's composition, and show data distribution across each region. We can use a Mekko chart to show growth, market share, or competitor analysis. Mekko charts can seem more complex than other types of charts and graphs. So, it's best to use these in situations where you want to emphasize scale or differences between groups of data.
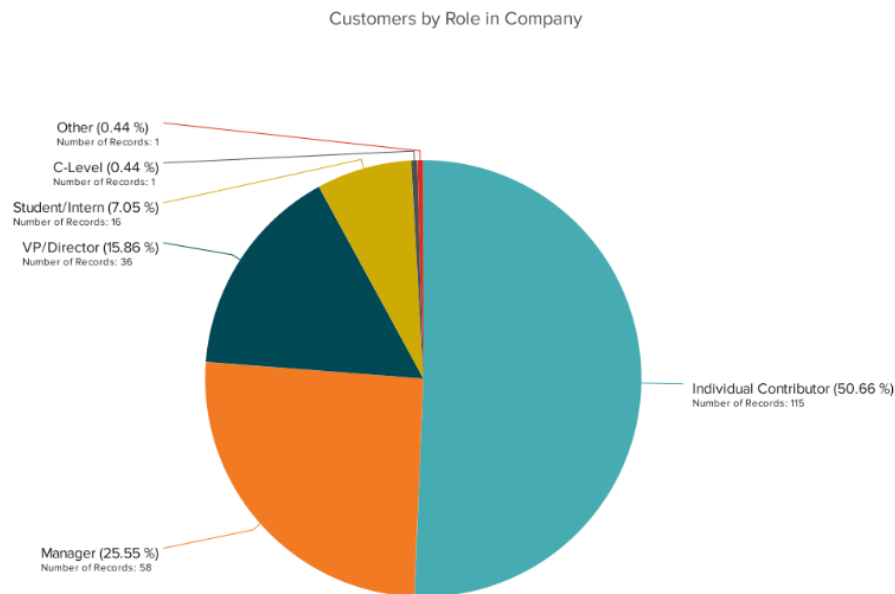
World's Largest Asset Managers

Most of the world's largest asset managers are grouped in the Northeast US. Eight of the 14 firms that manage $1T or more are in the NY, Boston or Philadelphia areas.


	$10.4T	$5.9T	$4.4T	$4.0T	$5.1T	Total = $29.8T
100%	PGIM $1.0T	Wellington Management $1.0T		Northern Trust (Chicago) $1.0T	Norges Bank Investment Management (Norway) $1.0T	
80	BNY Mellon $1.8T				Government Pension Investment Fund (Japan) $1.2T	
60	J.P. Morgan Asset Management $1.9T	Fidelity Investments $2.3T	Vanguard Group $4.4T	Capital Group (Los Angeles) $1.4T	Legal & General Investment Management (UK) $1.3T	
40	BlackRock Inc. $5.7T	State Street Global Advisors $2.6T		Pimco (Newport Beach, CA) $1.6T	Amundi (France) $1.6T	
0	New York Metropolitan Area	Boston Metropolitan Area	Philadelphia Metropolitan Area	Rest of US	Rest of World	

d. Pie

A pie chart shows a static number and how categories represent part of a whole — the composition of something. Pie charts make it easy to see a section in relation to the whole chart.

Customers by Role in Company

- Other (0.44 %) — Number of Records: 1
- C-Level (0.44 %) — Number of Records: 1
- Student/Intern (7.05 %) — Number of Records: 16
- VP/Director (15.86 %) — Number of Records: 36
- Individual Contributor (50.66 %) — Number of Records: 115
- Manager (25.55 %) — Number of Records: 58

e. Line

Line graph show trend or progress overtime and can be used to show different categories of data. It should be used for continuous data. It helps in comparing changes for more than one group over the same period of time.

Average Days to Close by Date Became SQL
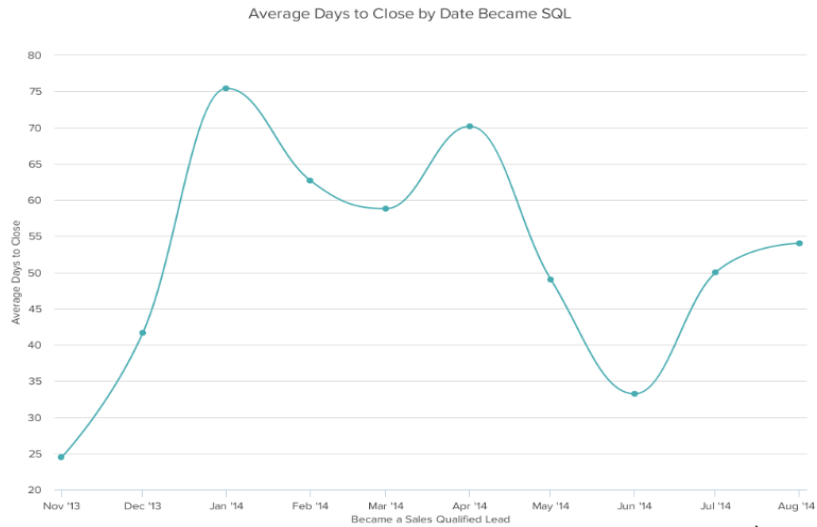
f. Scatter Plot

This chart will show the relationship between two different variables or reveals distribution trends. This is useful for understanding the distribution of your data.


Customer Happines by Response Time

g. Bullet

A bullet graph reveals progress toward a goal, compare this to another measure and provide context in the form of rating or performance. This graph can also help teams to assess possible roadblocks because you can analyze data in a tight visual display.

New Customers

2. For Showing the composition
    a. **Funnel**
       A rate for each step. Use this type of chart to track the sales process or the conversion rate. Most common used for marketing or sales funnel.
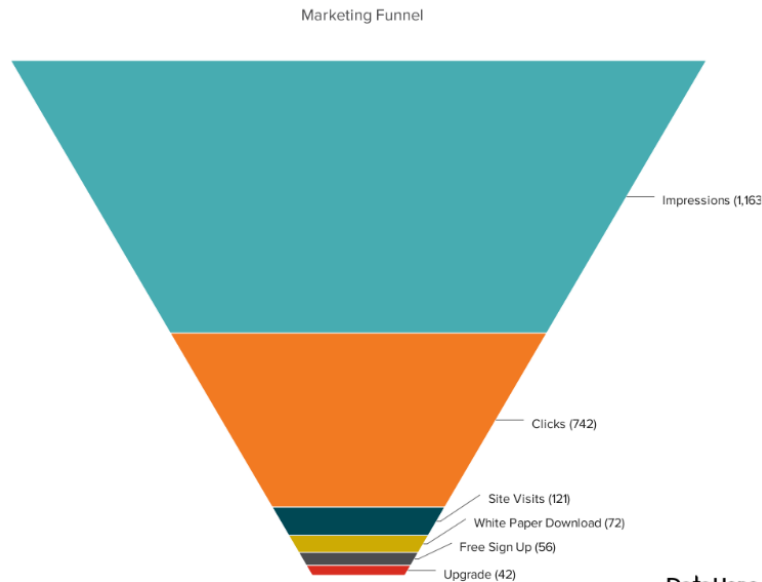

    b. **Stacked Bar / Bar charts with Long Format Data**
       Use this chart to compare many different items and show the composition of each item you're comparing. Stacked bar charts are excellent for marketing. They make it simple to add a lot of data on a single chart or to make a point with limited space.
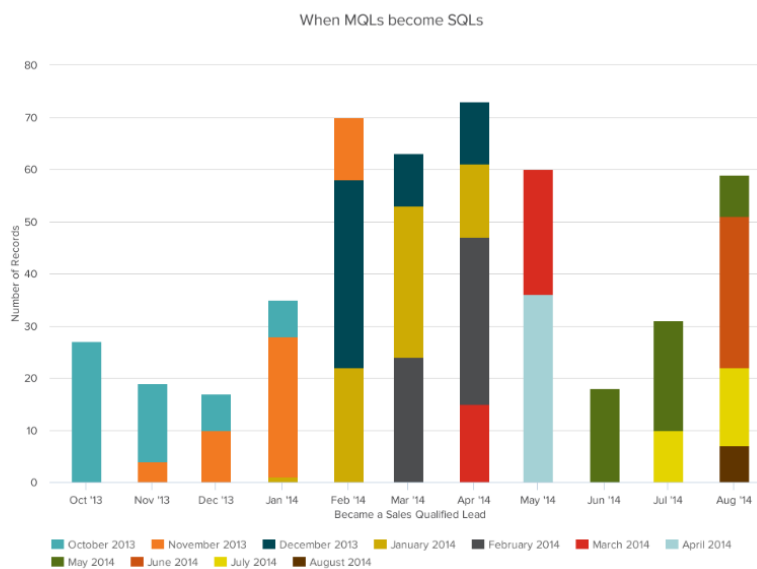

    c. **Area**
       It is basically a line chart but the space b/w the x-axis and the line are filled with a color It is useful for showing part-to-whole relations, like showing individual sales reps' contributions to total sales for a year. It helps in analyzing both overall and individual trend information. work best for big differences between data sets and also help visualize big trends.
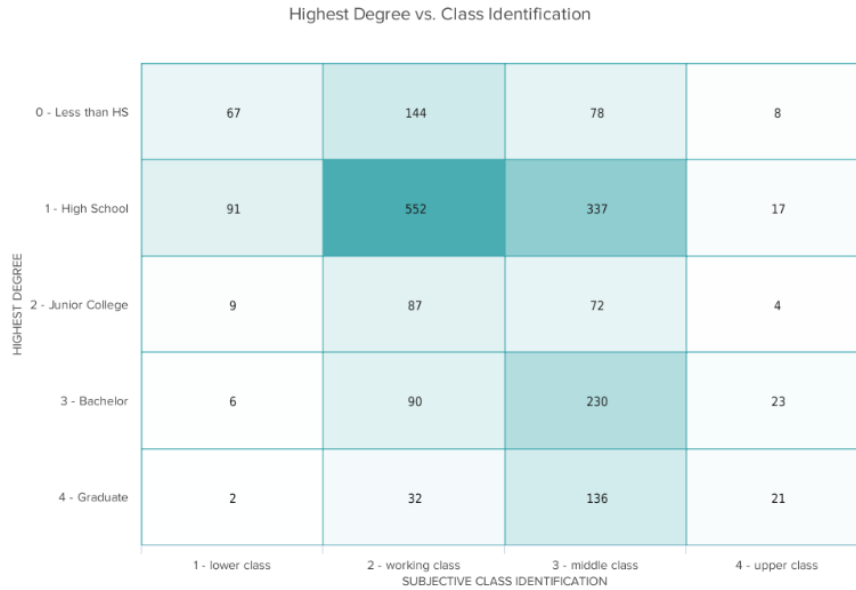
Users by Creation Date and Life Cycle Stage
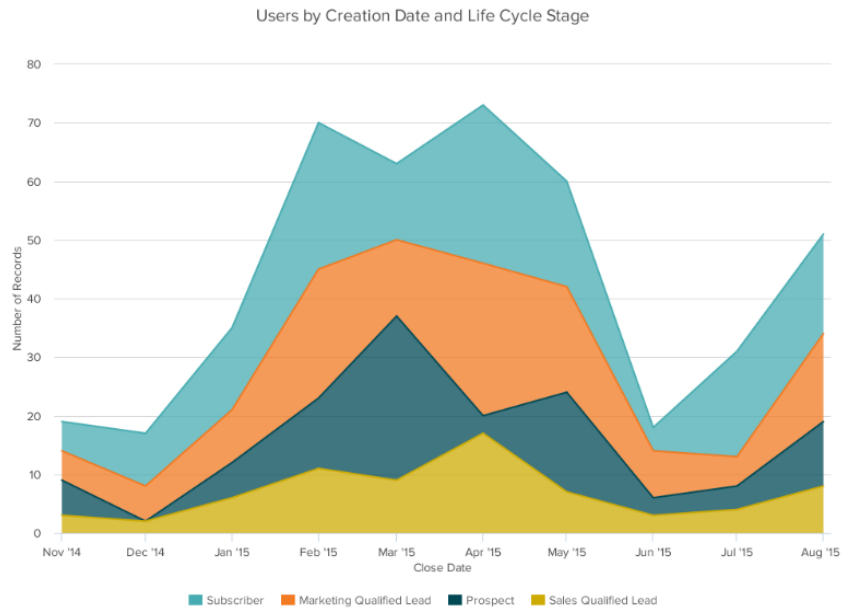
d. **Waterfall**

Use a waterfall chart to show how an initial value changes with intermediate values — either positive or negative — and results in a final value. It is used to show the composition of the number. This type of chart makes it easier to understand how internal and external factor impact a product or campaign as a whole.
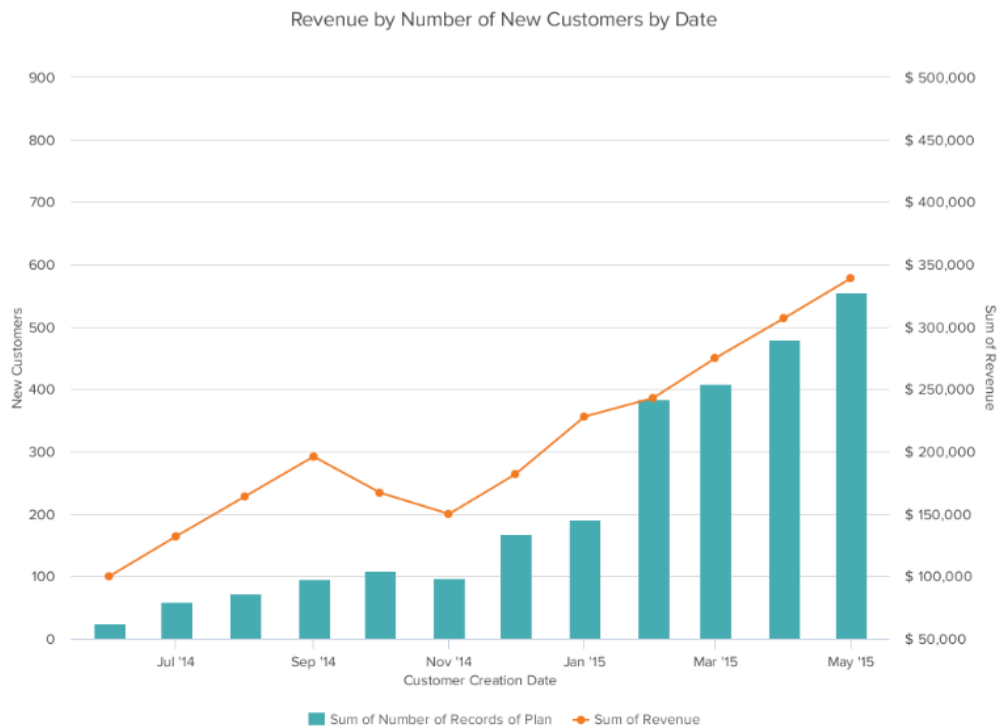

Checking Account
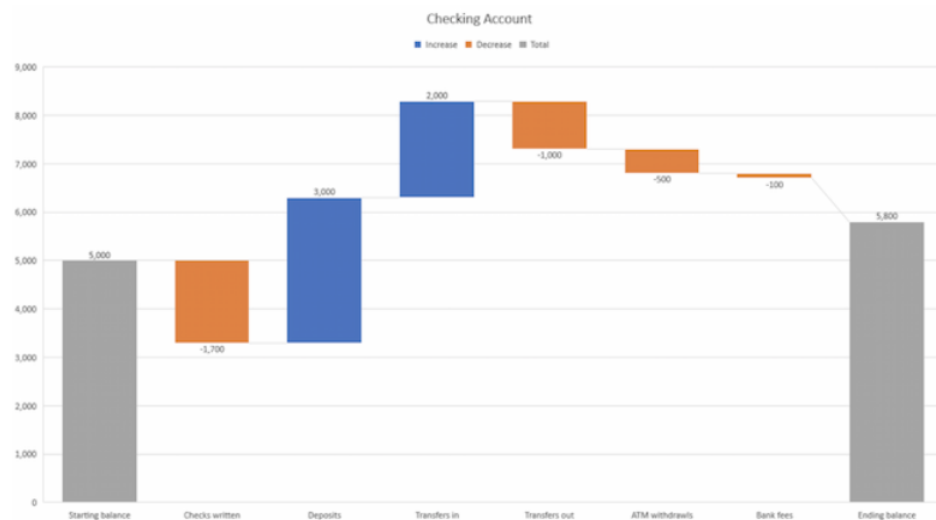
e. **Heat Map**

A heat map shows the relationship between two items and provides rating information, such as high to low or poor to excellent. Heat maps can also help with spotting patterns, so they're good for analyzing trends that change quickly, like ad conversions.

Highest Degree vs. Class Identification

HIGHEST DEGREE	1 - lower class	2 - working class	3 - middle class	4 - upper class
0 - Less than HS	67	144	78	8
1 - High School	91	552	337	17
2 - Junior College	9	87	72	4
3 - Bachelor	6	90	230	23
4 - Graduate	2	32	136	21

SUBJECTIVE CLASS IDENTIFICATION

3. Understanding the Distribution of Data, we use the following Plots

   **a. Dual-axis Line**

    Dual axis chart allows to plot data using 2 y-axis and a shared x-axis. It has three data sets. One is continuous set of data and the other is better suited to grouping by categories. Use this chart to visualize a correlation or the lack thereof between these three data sets.

Revenue by Number of New Customers by Date

Legend: Sum of Number of Records of Plan — Sum of Revenue

    b. Bubble

A bubble chart is similar to a scatter plot in that it can show distribution or relationship. bubble charts useful for seeing the rise or fall of trends over time.

Hours Spent Online by Age and Gender
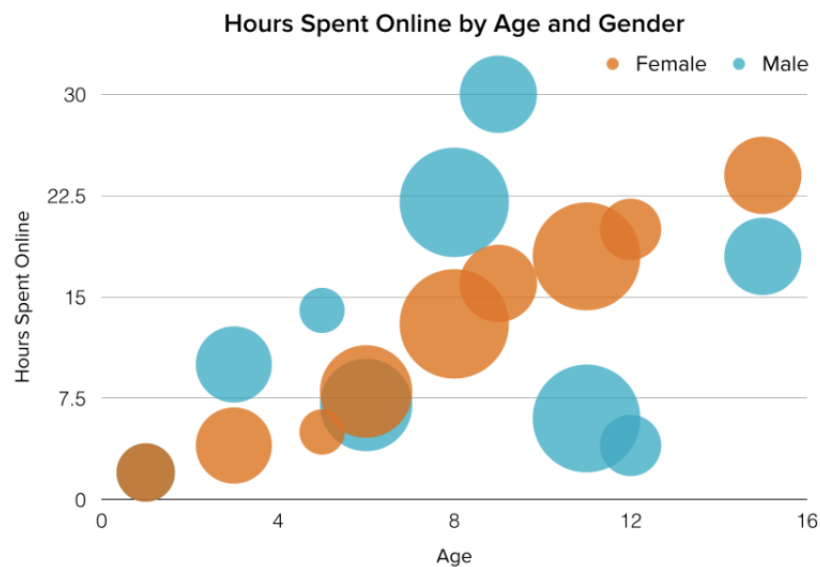
c. **Gantt Chart**
It uses for project schedules. The Horizontal axis represent time on the vertical axis a bar display project tasks.