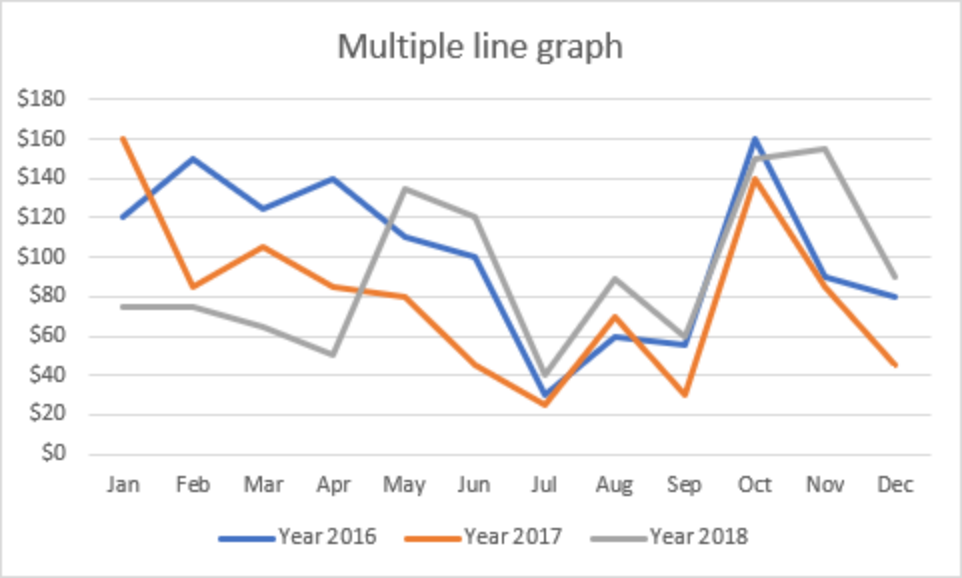
Different Types of Chart

Line chart



Uses:

1)Display trends and changes over time

2)Ploting stock merket pricess over month.

3) Tracking temperature throughout the year.

4) Continuous data, such as time-series data or numerical data

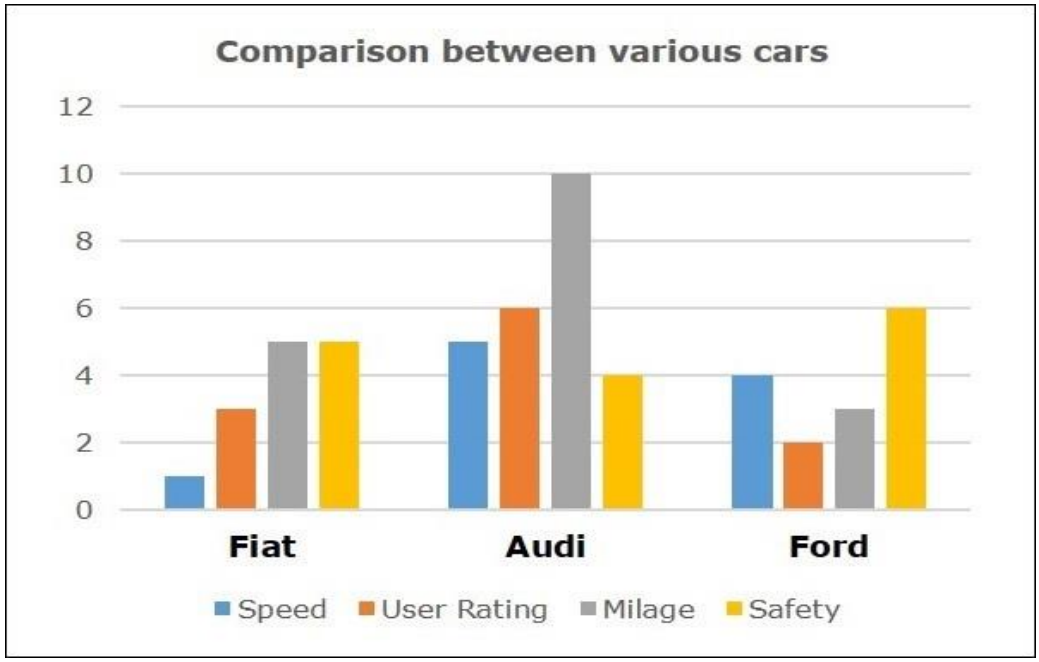
Limitation:

1)Its not suitable for categorical data .

2) When a line chart contains too many data points, the lines may become cluttered and hard to interpret, reducing their effectiveness.

3) If there are interactions or complex relationships between variables, line charts may not be the best choice to visualize data.Then scatter plots or bubble charts might be better.,

Bar Chart:



Uses:

1)comparison of categories and category data, product category.

2) demographic group ,discret or categorical group

3)Dispalying for data level and data ranking.

4)Used to visualize for Categorical data comparison, frequency distribution, showing proportions or percentages,

Limitation:

1)Bar charts are most suitable for representing categorical data

2) Misleading When Using 3rd Effects.

3) Not suitable for displaying trends over time

Pie chart:

Uses:

1)Displaying proportion and percentage.

2)Simple coparison between a few categoriies.

3)Used to visualize for Market Share, Percentage Distribution, Budget Allocation, Survey Responses, Proportional Data Representation, Visualizing Percentages, Comparing a Few Categories

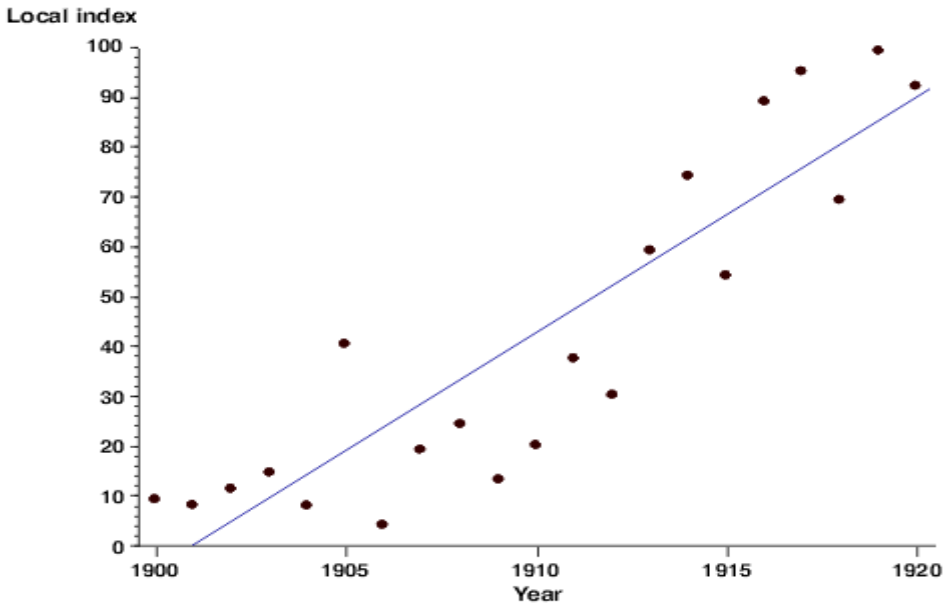
Limitation:

1)Limited a few category not more category.

2) Pie charts are not suitable for displaying trends over time or changes in data.

3) When the pie chart has too many segments, it challenging to distinguish between small solicitations, leading to confusion and misinterpretation.

Scatter plot:



Uses:

1)Identifying the presence of relationship or correlationship between two variable correlated with positive or negative or no related.

2)Identify cluster or pattern for segmentation and classification task.

3)Used to visualize for Correlation analysis,outlier detection, identifying patterns and trends, visualizing multivariate data, before and after comparisons, data cleaning and validation

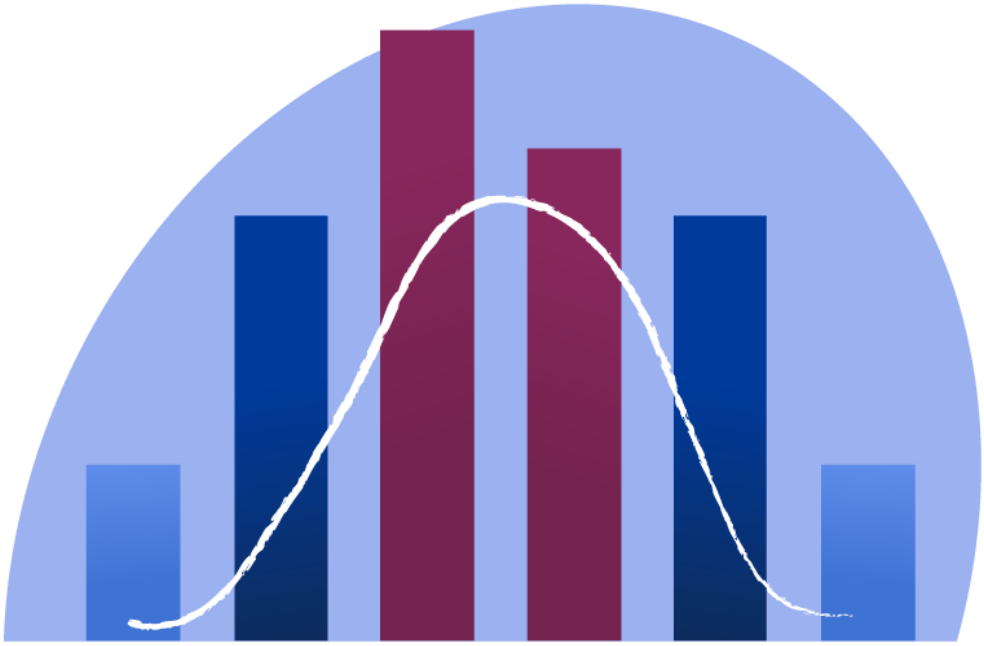
Limitation:

1) Catter plots can only visualize the relationship between two continuous variables.

2)Its design for continious variaable not for categorical variable.

3)It cannot work in time series data and cannot handle missing value.

Histrogram:



Uses:

1)Distribution of data,skewness and kurrtosis and central tendencies.

2)Highlight outlier,Meaningfull bins.

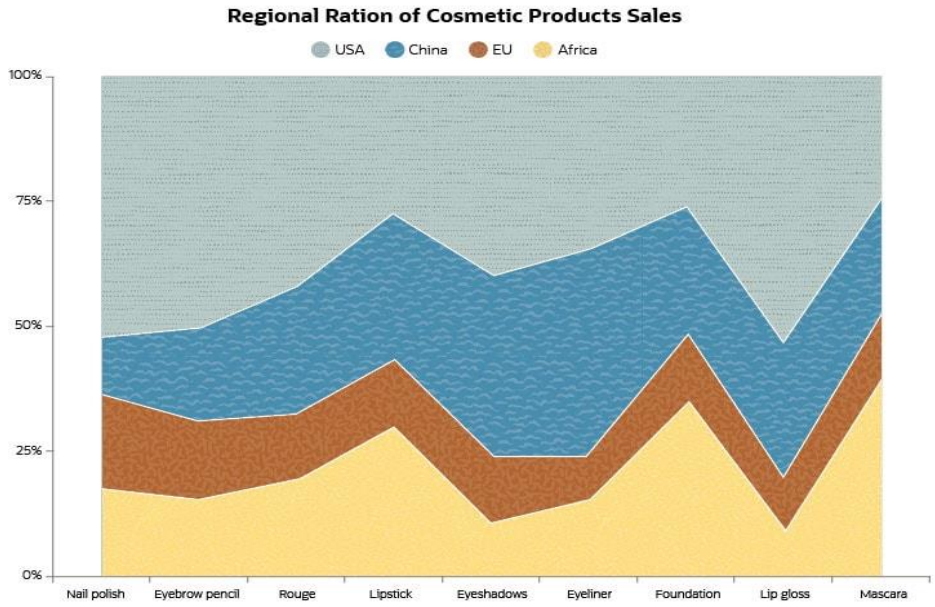
3)Handle both continious and discret data.

4)Easy to comparison of the distribution of multiple data.

Limitation:

1) Less suitable for small data.
2) It can only one variavble distributed not multivariable.
3) It’s not suited for handling miss value and sensitive to Bin Origin.

Area Chart:



Uses:

1)It's showing trends over time and cummulitive efffect.

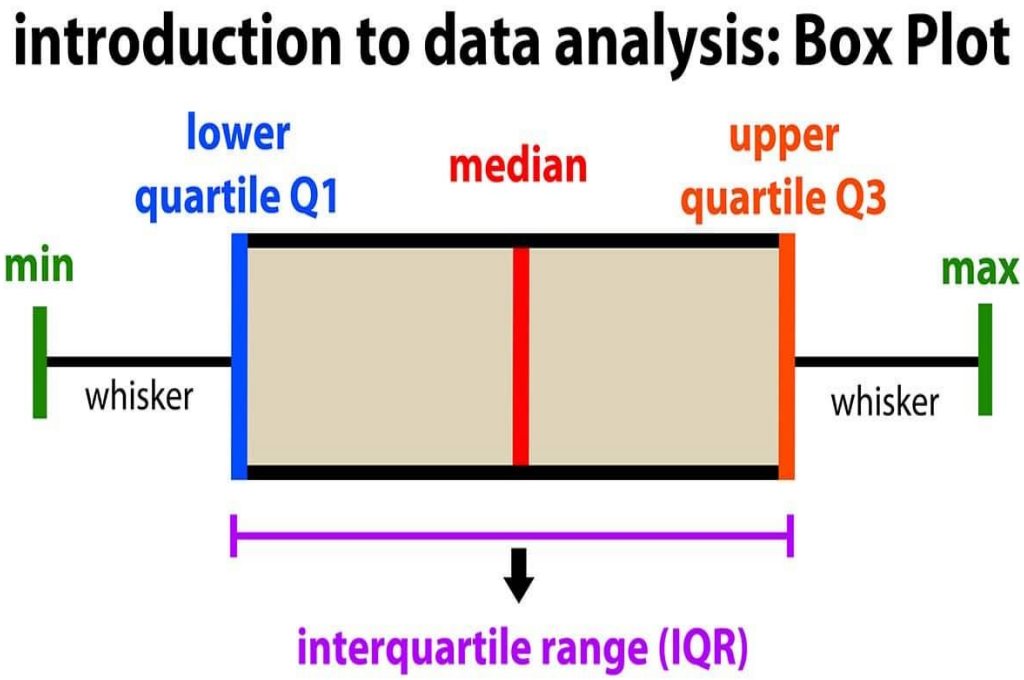
2)Compare the trends of multiple categorical data when they have overlaping value.

3)It's used to visualize for Showing trends and patterns, comparing multiple categories, visualizing cumulative data, highlighting proportions and percentages,

Limitation:

1) Misleadiing for the negative value.
2) It's suitable for continiuos data not suitable for categorical data or non-continious data.
3) For irregular or non-linear pattern other chart such as scatter-plot,Box-plot are more better.

Box-Plot:



Uses:

1)Box-plot provide the median,Quartiles ,Skewness and Potential Outlier.

2)Effective comparison between different group or categories.

3)Handiling the large data ,show the range between the quartile and data distribution is symmetric or skwed to determine.

Limitation:

1) Box_plot are not suitable for small dataset .
2) Box plots do not show the density of data points with H quartiles.

Waterfall Chart:

Uses:

1)It's liniear and sequential managing projects,required gathering,design,development and testing.

2)Project are more clear,straightforward,predictibility and plaining

3) It's used to visualize for project budget,budget changing and their impact on the total cost.

Limitation:

1)Not be suitable for large number dataset and complex project.

Heatmap:

Business Heatmap Analysis

Questions	Product 1	Product 2	Product 3	Product 4	Product 5	Product 6	Product 7	Product 8	Product 9	Product 10	Total Average Per Product
Question 1	10.00	8.76	4.33	5.00	7.40	4.00	7.00	4.00	7.20	9.20	6.69
Question 2	8.50	4.00	7.00	7.90	6.50	3.50	3.00	5.50	7.80	7.80	6.20
Question 3	6.00	10.00	3.67	0.00	4.50	8.30	1.80	2.20	8.40	0.00	4.19
Question 4	6.00	7.00	9.00	4.67	4.00	3.67	1.00	6.50	1.50	4.00	4.93
Question 5	3.00	4.00	8.50	6.90	3.00	8.80	6.00	7.90	3.60	6.60	5.73
Question 6	3.80	4.20	5.20	6.00	4.20	2.80	3.80	4.20	9.20	8.60	4.40
Total Average Per Question	6.47	6.16	9.95	4.08	4.43	4.01	4.60	1.25	5.45	5.37	5.36

Rankings	10.0	8.0	5.0	3.0	0.0

This slide is 100% editable. Adapt it to your needs and capture your audience's attention.

Uses:

1)Identify the Trends,cluster and pattern in data revealing their data relation.

2)It's showing the correlation between variable and geographic data such as population density,crime rules and temperature .

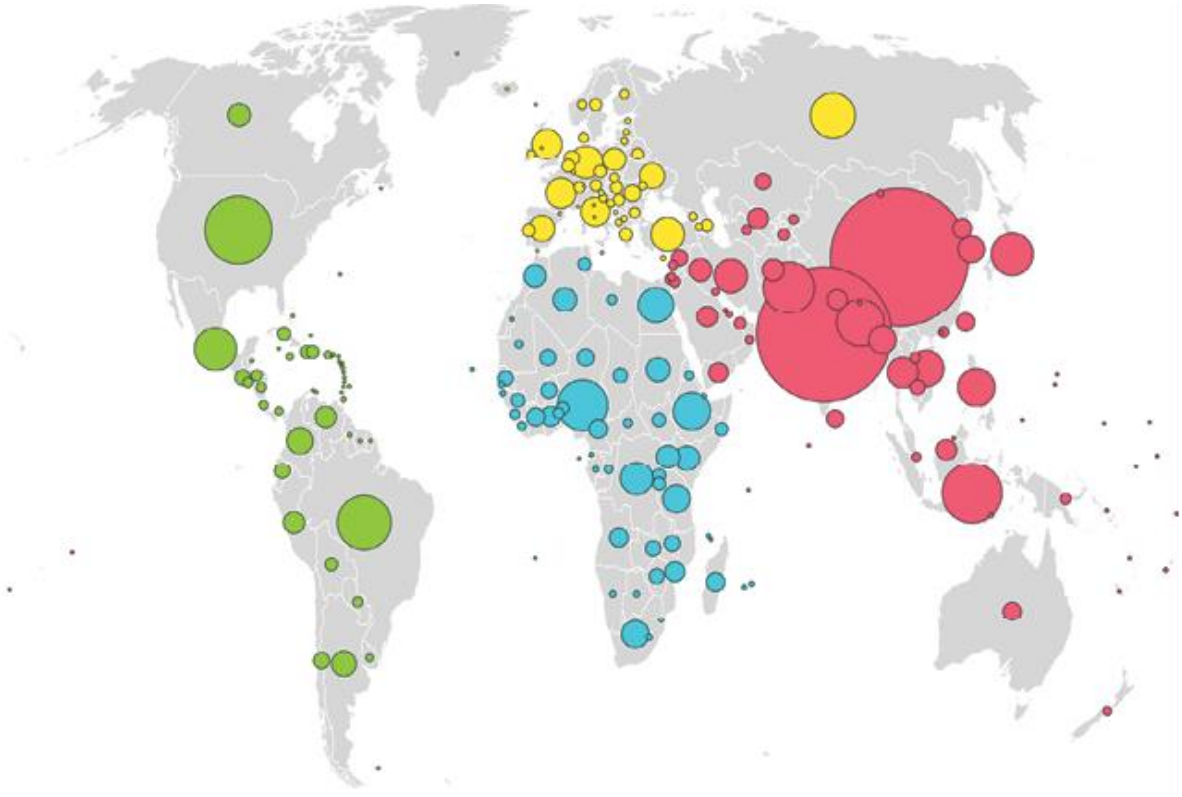
3)It's visualized for the Correlation, Comparing Multivariate Data, Identifying Clusters and Patterns, Time-Series Data Analysis, Displaying Geographic Data, Gene Expression Analysis, Risk and Portfolio Management.

Limitation:

1)Lack of missing value and large dataset.

2)Lact of discret and categorical dataset.

Bubble Chart:



Uses:

1)Bubble chart visualize the three variable.Two variable represent the X and Y axis and third variable represent the size of bubbles.

2)It's use for geographical data map such as GDP(x,y) and Population(z) or Density(z).

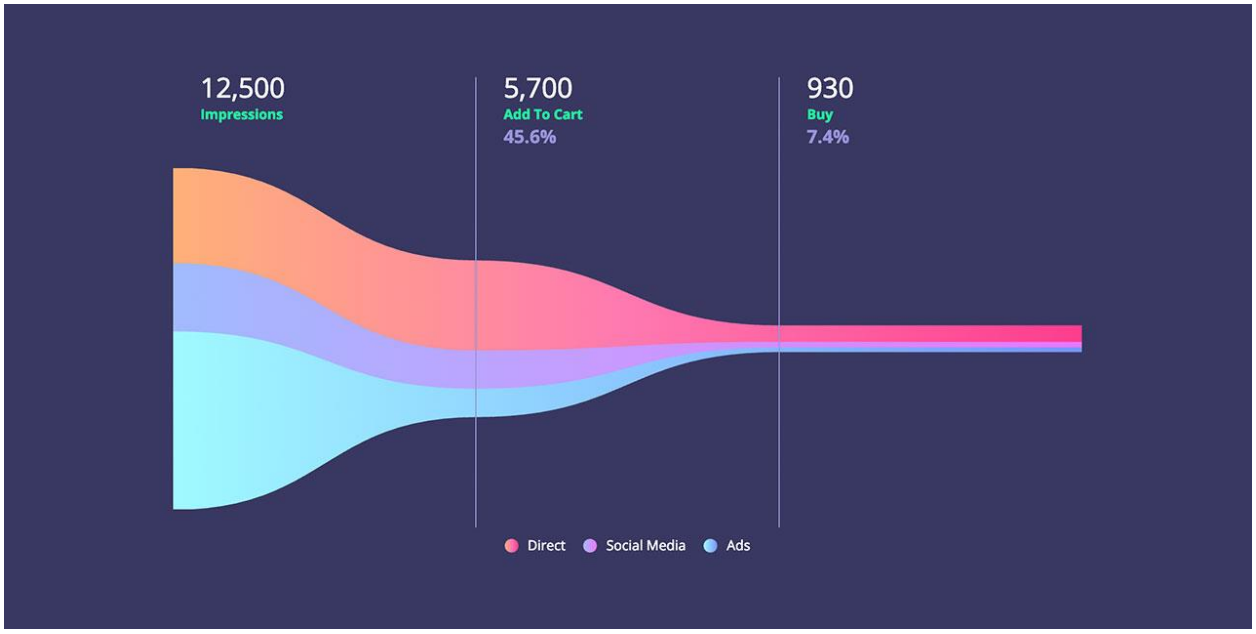
3)Bubble chart used to visualize for the science and engineering ,Healthcare and Medical,,Patient character(x,y) and Treatment(z).

Limitation:

1)Bubble chart can do only three variable.

2) Lack of large dataset and time_series data.

Funnel Chart:



Uses:

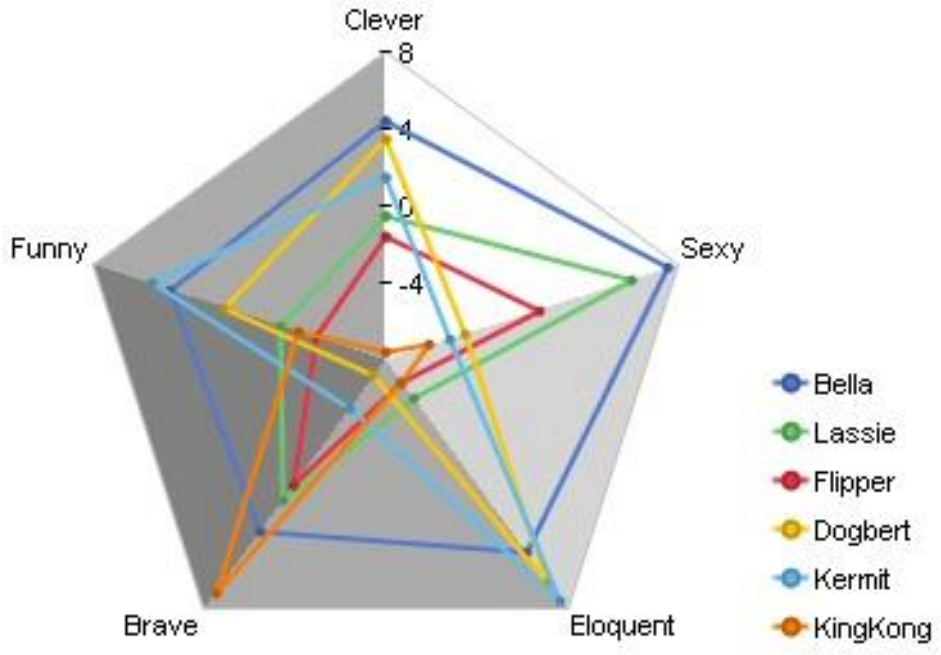
1)Usefull in HR and hiring process such as Sign-up,Onbaording or Checkout.

2)It's used to visualize the data for Sales and Merketing data,Website or App Conversation,Customer Journey,Event Registration Funnel,Sales Pipeline Analysis and A/B testing Analysis.

Limitation:

1) Funnel chart are not for small sample size.
2) Unal charts heavily depend on the accuracy and granularity of the data. If data is missing or improperly categorized, it can lead to misleading conclusions.

Rader Chart:



Uses:

1)Highlights the Weakness and Strengh point

2) Used in Sports,Business and Compaire the team based or Multiple Criteria.

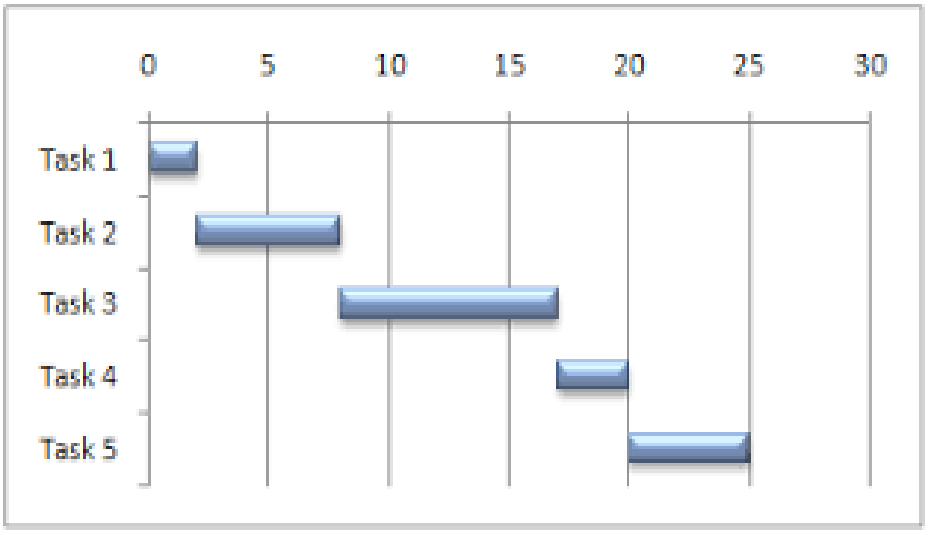
3)Compact Overview the Overall Trends and relationship variable and non-linear.

4) Rader Chart are used to visualize the data for Comparing Mltivariate data, visualizing performance or skill levels, evaluating product features, data presentation and portfolio analysis

Limitation:

1) Too many variables can make the chart overcrowded and difficult to interpret.
2) It has Difficulty handling missing data.

Gantt Chart:



Uses:

1)Gantt Chart are most used in project planing and scheduling and visualizing the task dependencies.

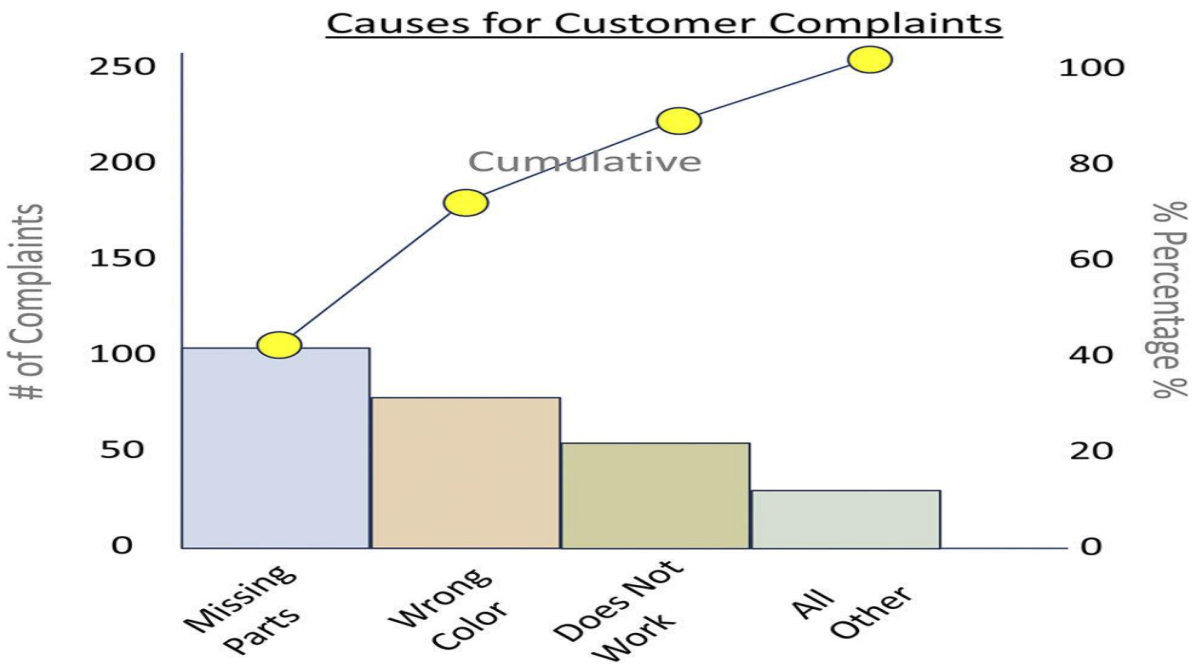
2)Task end to start dates,compare the plane timeline,project scope and duration.

3) Gantt Chart is used to visualized the data for Project progress tracking, production planning, results visualization, construction and engineering projects and event timelines.

Limitation:

1) Lack of Complexity in Dynamic Environments and Limited Interactivity.
2) Gantt-Chart is not ideal for long term planing and limited for continious data.

Pareto-Chart:



Uses:

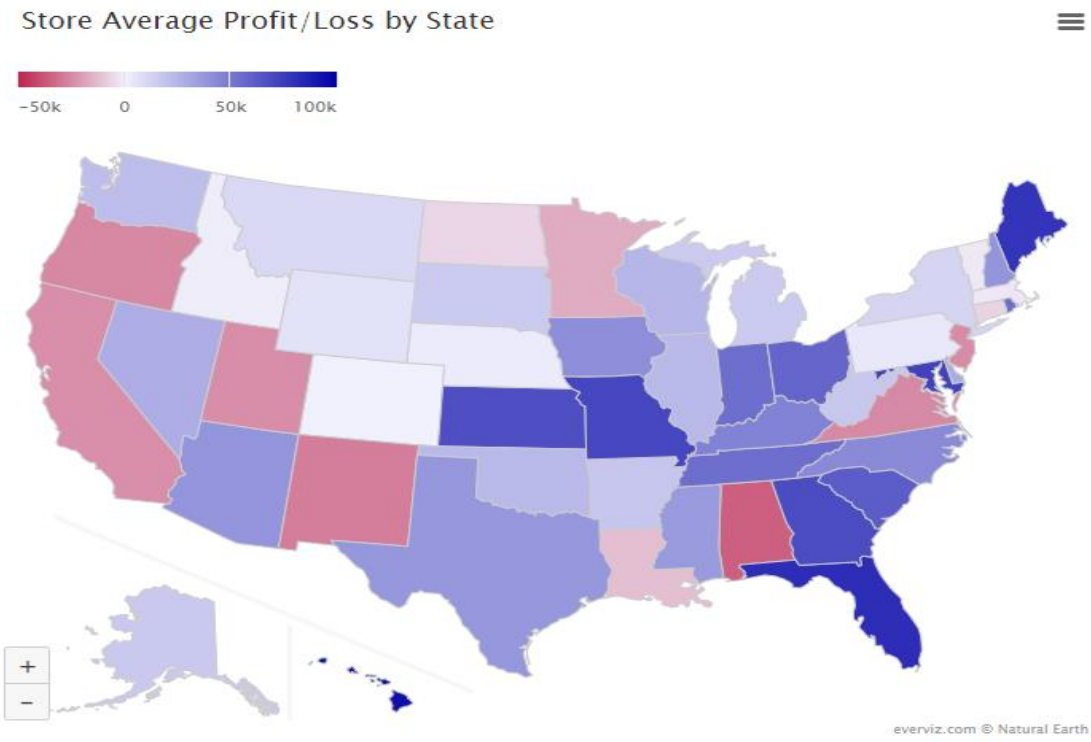
1) A Pareto chart is a chart that combines both bar and line graphs to highlight the most significant factors in a dataset. It follows the Pareto principle, also known as the 80/20 rule, which states that roughly 80% of the effects come from 20% of the causes.
2) The line is used to visualize the cumulative contribution of each category to the overall total and the Bars represent the frequency, count, or magnitude of each category.
3) It's used to visualize the data for root cause analysis,communicate data effectively and monitors improvement

Limitation:

1)When the data size is small then it may not accurately represent .

2)Pareto chart are suitable for analyzing categorical data,where data is grouped into discret categories but when data is continious it's can't provide accurately.

Filled map:



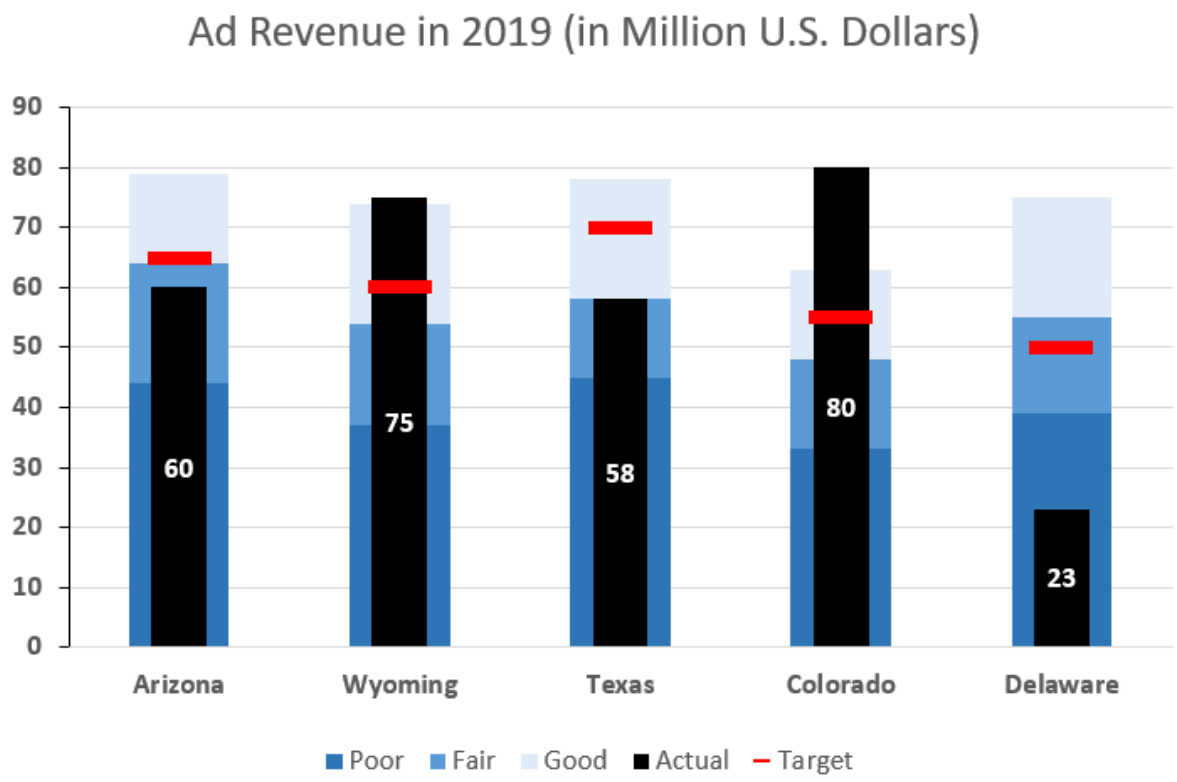
Uses:

1) A field map 2 is used to visualize data of geographic regions, such as countries, states, provinces, and other defined boundaries.
2) Easy to understand Regional data comparison and distribution of data by Filled map .
3) It's used to visualize the data for Data Clustering and Hotspots, Area of Sales and Marketing, Demographic Analysis and Election Results.

Limitation:

1)Lack of Small region data reliability and visual complexity.

Bullet Chart:



Uses:

1) A bullet chart 2 is used to display and compare data against performance targets and benchmarks.
2) The design of bullet charts emphasizes the most critical information, such as actual value, target value, and performance range.
3) It's used to visualize the data for Quality control, healthcare metrics, sales performance and copy tracking.

Limitation:

1) It's not ideal for all dataset and Complexity with multiple targets.
2) When displaying many bullet charts together, especially with long data labels, small charts can become cluttered.