1. **Analysis of sales trends in superstore dataset.**

i) Create a line chart to analyze monthly sales trends over multiple years and identify seasonal patterns.

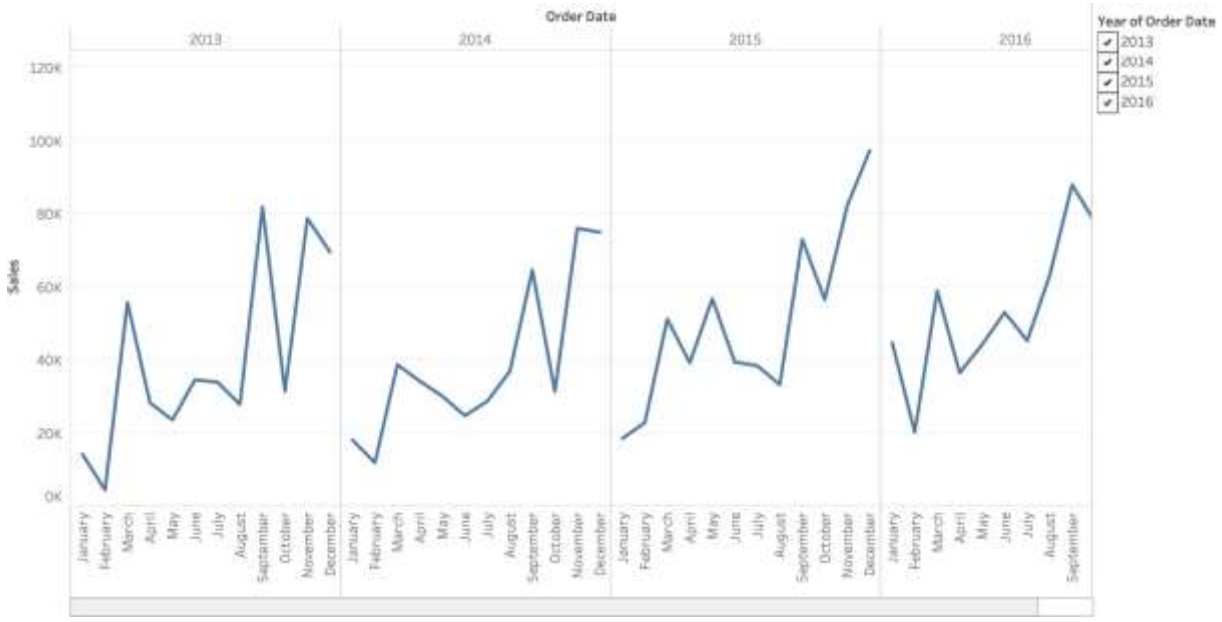
Procedure:

Step 1: Drag and Drop order date on columns.

Step 2: Year and month should be in the same columns.

Step 3: Drag and Drop sales in rows.

Step 4:Drag and Drop order date in filters.



ii) Create a dual-axis chart to compare total sales and discount offered for each region.
Procedure:

Step 1: Drag and Drop order date inn columns.

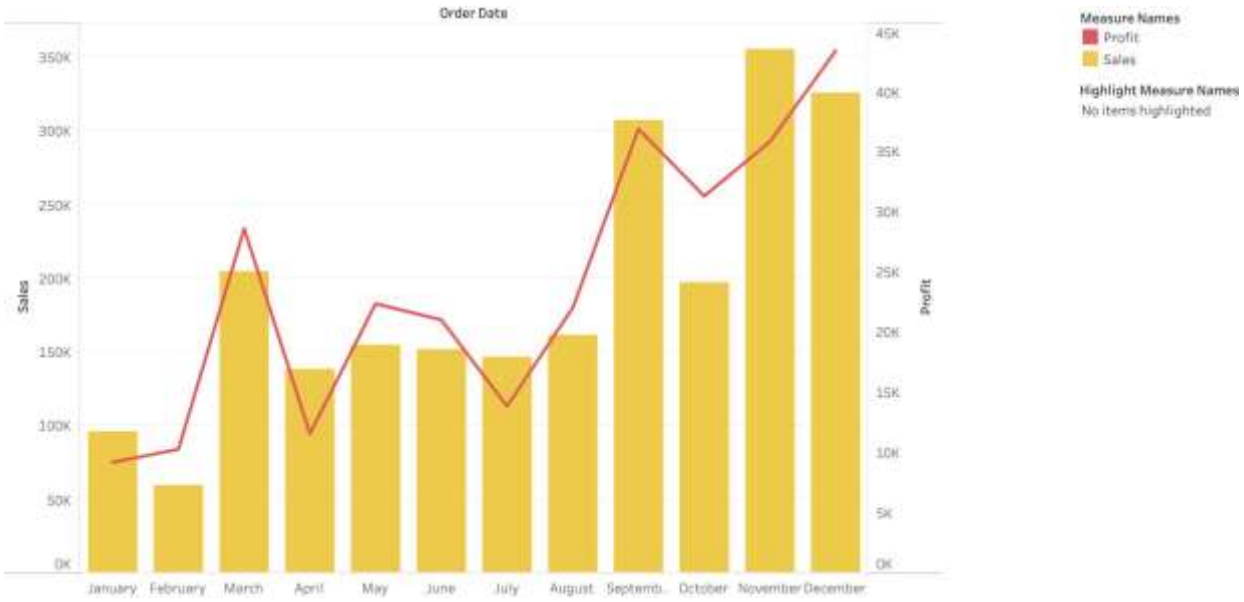
Step 2: Drag and Drop sales and profit in rows

Step 3: Go to profit drop down and select dual axis.

Step 4: To sales create a bar chart.

Step 5: To profit select line chart.

Step 6: Drag and Drop measure names on color.



iii) Create a pie chart to show the percentage share of sales across different shipping modes.

Procedure:

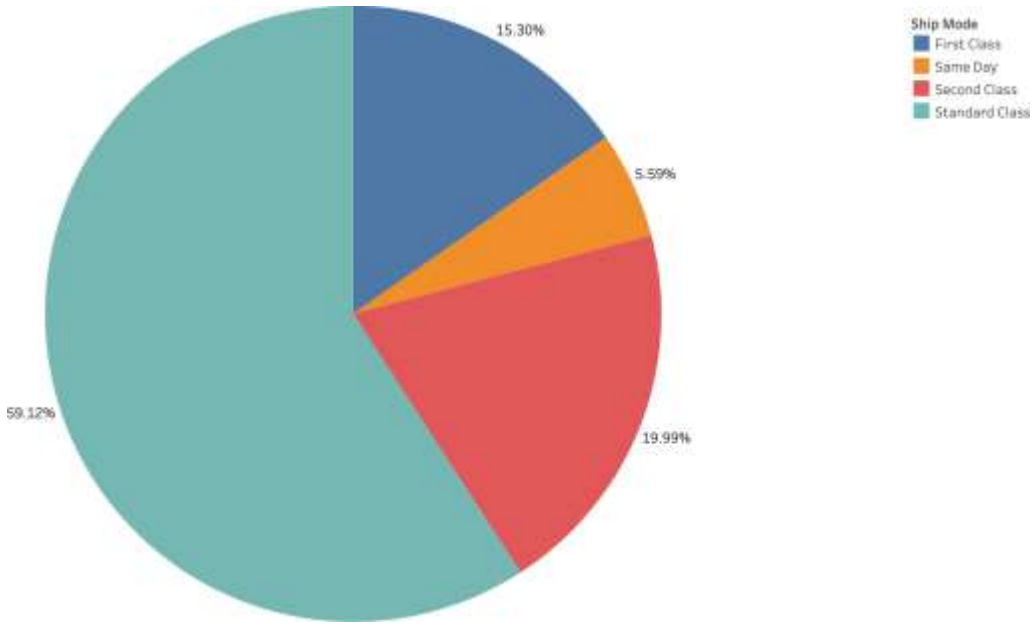
Step 1: Drag and Drop ship mode on colour.

Step 2: Goto automatic and select pie.

Step 3: Select size and adjust its size.

Step 4: Drag and Drop sales on angle and label.

Step 5: On the angle Dropdown go to quick calculation and select total percent.



iv) Create bins to group customers based on sales amounts (e.g., Low, Medium, High) and display the distribution in a histogram.

Procedure:

Step 1: Select sales on tables and select dropdown and create bins.

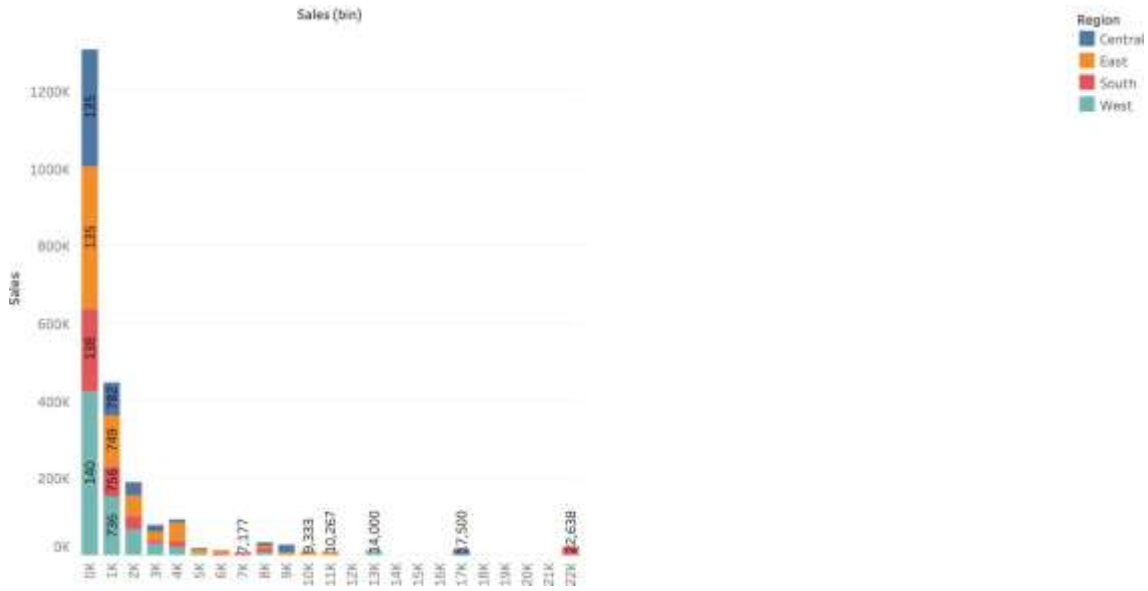
Step 2: Sales bin will be created.

Step 3: Drag and Drop sales bin on to columns.

Step 4: Drag and Drop sales in to rows.

Step 5: Drag and Drop region on to color.

Step 6: Drag and Drop sales on label on dropdown go to measure and select average.



2. Analysis of Profit in the Superstore Dataset.

i) Create a bar chart to display the total profit for each category and sub-category, identifying the most and least profitable sub-categories

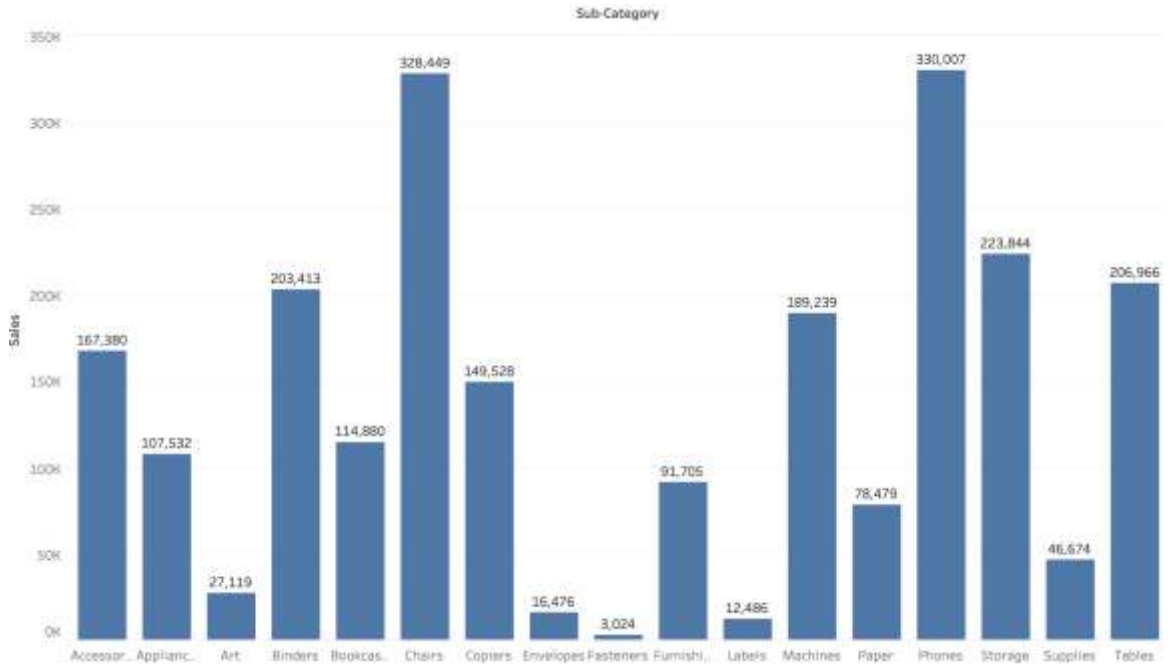
Procedure:

Step 1: Drag and drop sub category in columns and sales in columns.

Step 2: Drag and drop sub category in filters.

Step 3:Drag and drop order date(month) in filters.

Step 4:Drag and drop profit in label.



ii) Create a tree map to show the profit contribution of each region, using size and color to represent profit margins.

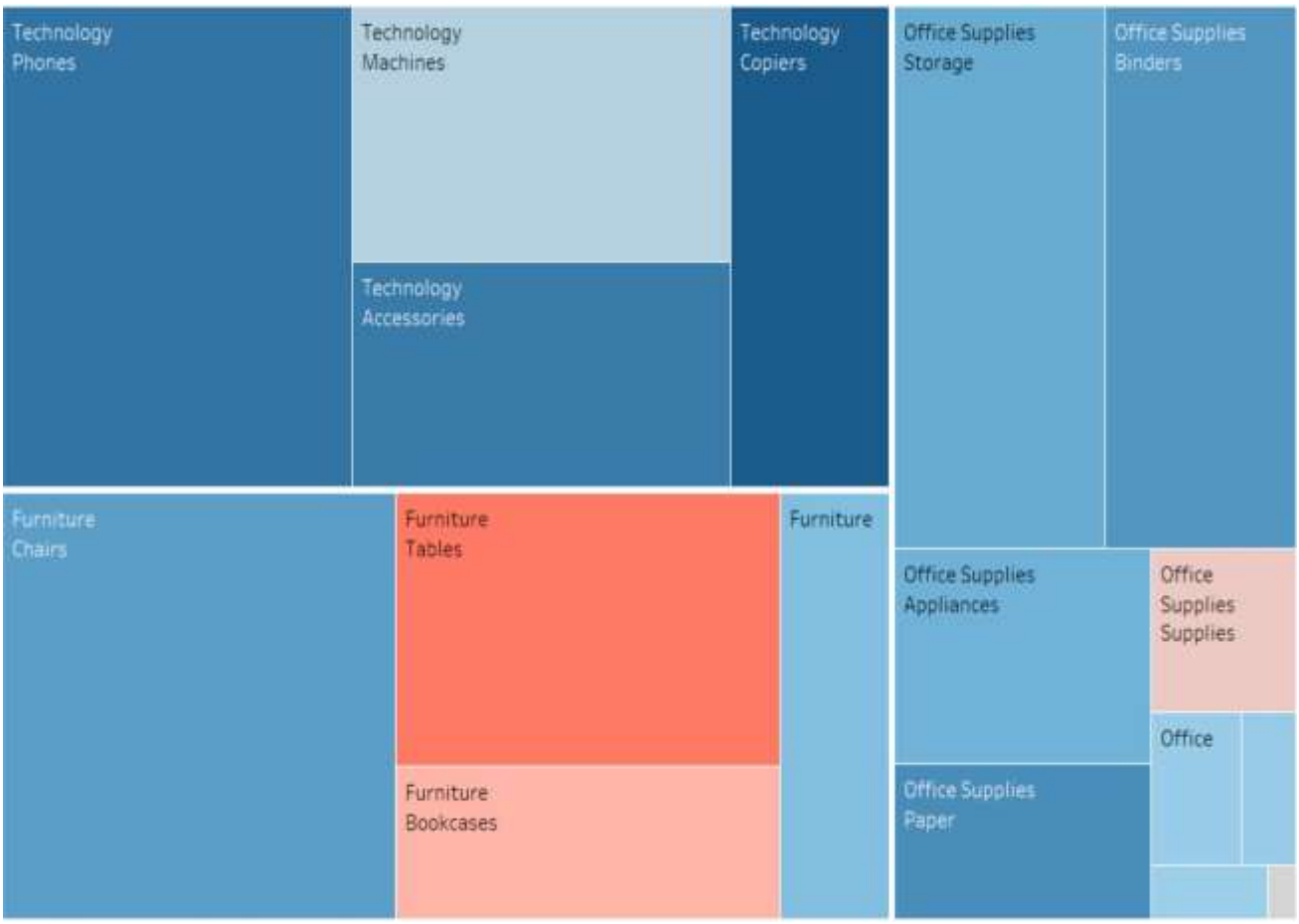
Procedure:

Step 1: Drag and Drop profit on colors.

Step 2: Drag and Drop sales on size.

Step 3: Drag and Drop category on label.

Step 4: Drag and Drop category and label.



iii) Create a scatter plot to analyze the relationship between sales and profit, adding a trend line to highlight patterns.

Procedure:

Step 1: Drag and Drop sales in columns.

Step 2: Drag and Drop profit in rows.

Step 3: Select automatic.

Step 4: Drag and Drop region in color.

Step 5:Select show thread line.

iv) Create a calculated field to compute the profit ratio (Profit/SalesProfit/SalesProfit/Sales) and categorize states as 'High Profitability' or 'Low Profitability.' Display the results in a heat map.

Procedure:

Step 1: Drag and Drop longitude and columns.

Step 2: Drag and Drop latitude rows.

Step 3: Create a calculated field, PBL the formula is

ELSEIF SUM([Profit])<0 THEN'Loss'

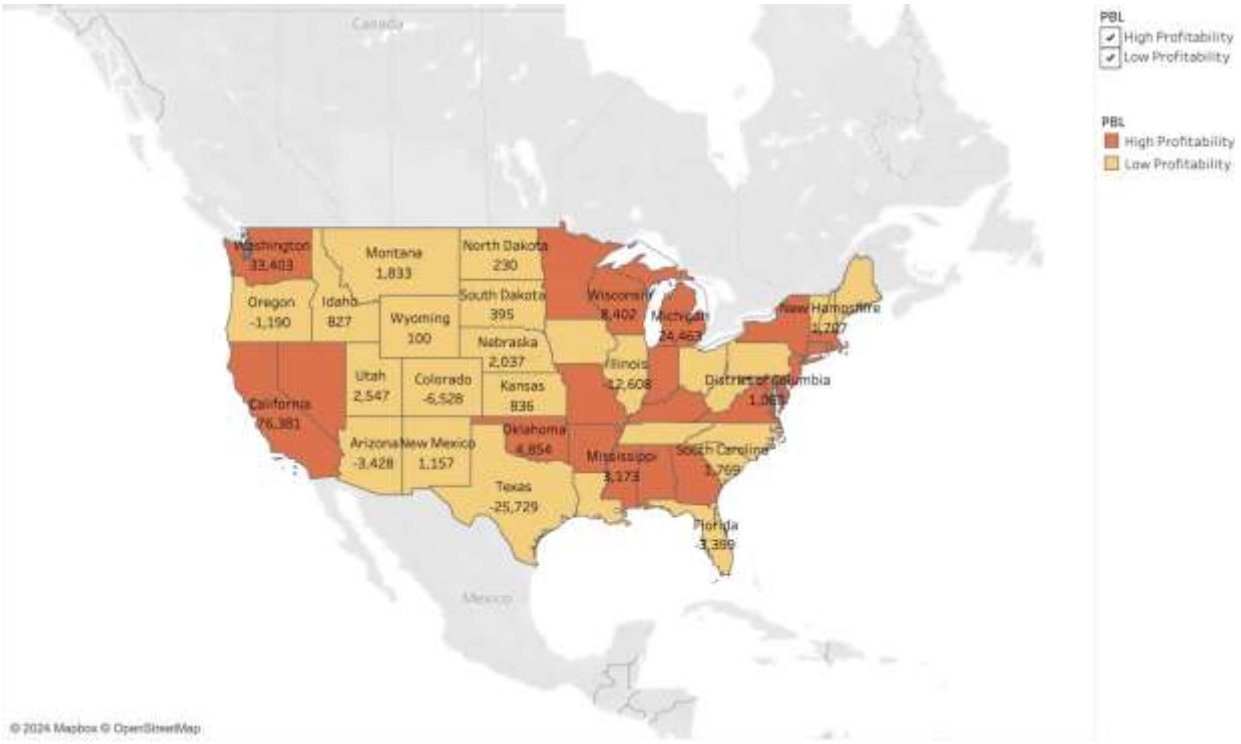
ELSE 'Breakdown'

END

Step 4: Drag and Drop profit on colors and label.

Step 5: Drag and Drop state on details.

Step 6: Drag and Drop of category state and order date in filter.



v) Build an interactive dashboard that integrates these visualizations and allows filtering by category, region, and state.

3. Analysis of revenue in sales dataset:

i). Create a choropleth map (fill the map) to spot the special trends to show the state which has the highest revenue.

Procedure:

Step 1: Select Country and Drag and Drop Country on the columns.

Step 2: Select Revenue and Drag and Drop Revenue on to the colors.

Step 3: Select Country and Drag and Drop Country on label to display the names of the country.

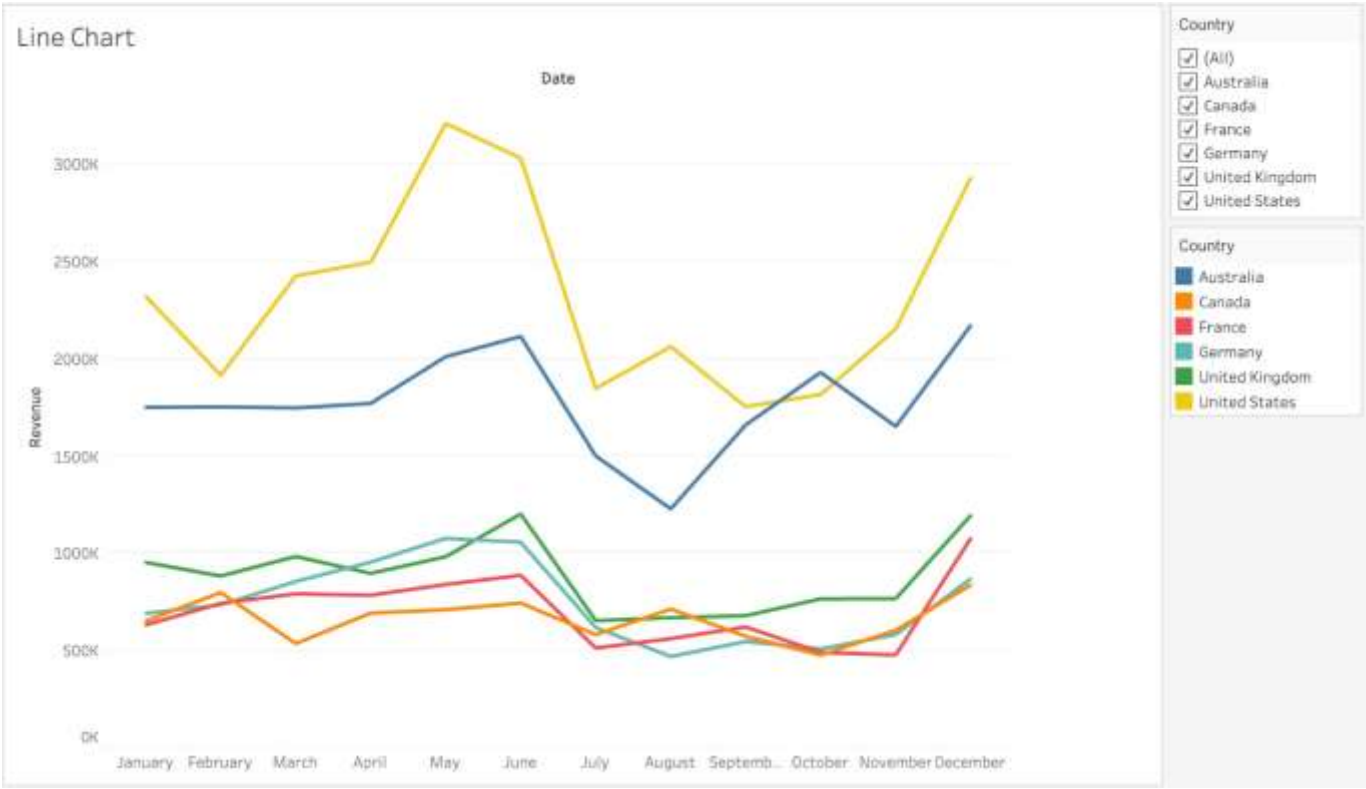
Step 4: Select Revenue and Drag and Drop Revenue on the labels to display the revenue

ii) Create a line chart to show the revenue based on the month of the year.Procedure:

Step 1: Select date then Drag and Drop it on the columns.

Step 2: Select revenue then Drag and Drop it on the rows.

Step 3: Select country then Drag and Drop it onto the filters to show the different country



iii) Create a bin of size 10 for the age measure to create a new dimension to show the revenue.

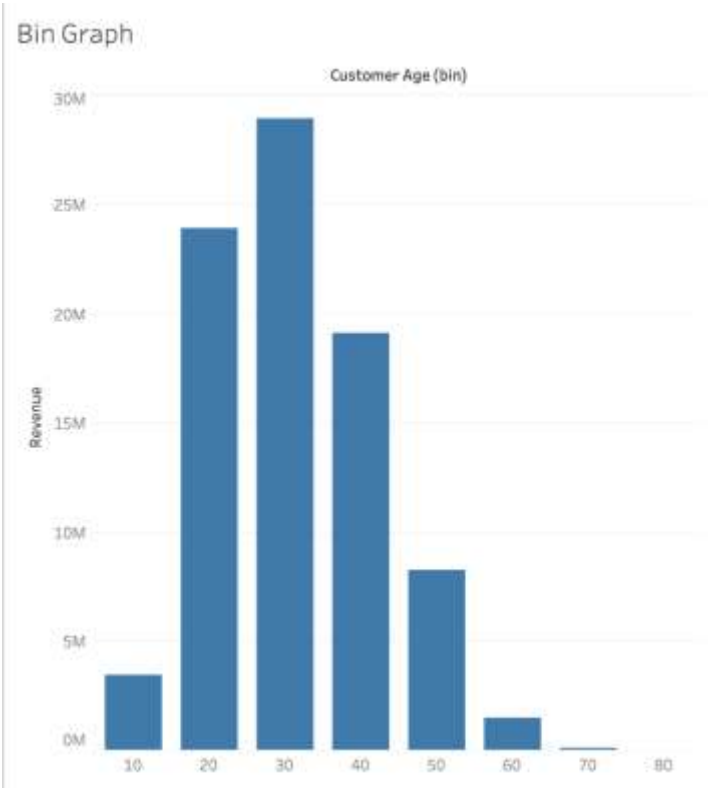
Procedure:

Step 1: Top down on the customer age then select create and create a bin

Step 2: Create a bin size as 10.

Step 3: Select customer age(bin)and Drop it on to the columns.

Step 4: Select revenue and Drop it on the rows.



iv) Create a donut chart view to show the percentage of revenue per region by creating zero access in the calculated field.

Procedure:

Step 1: Create a calculated field for the zero axis.

Step 2: Drag and Drop the zero axis on the rows two times and select average for the both axis.

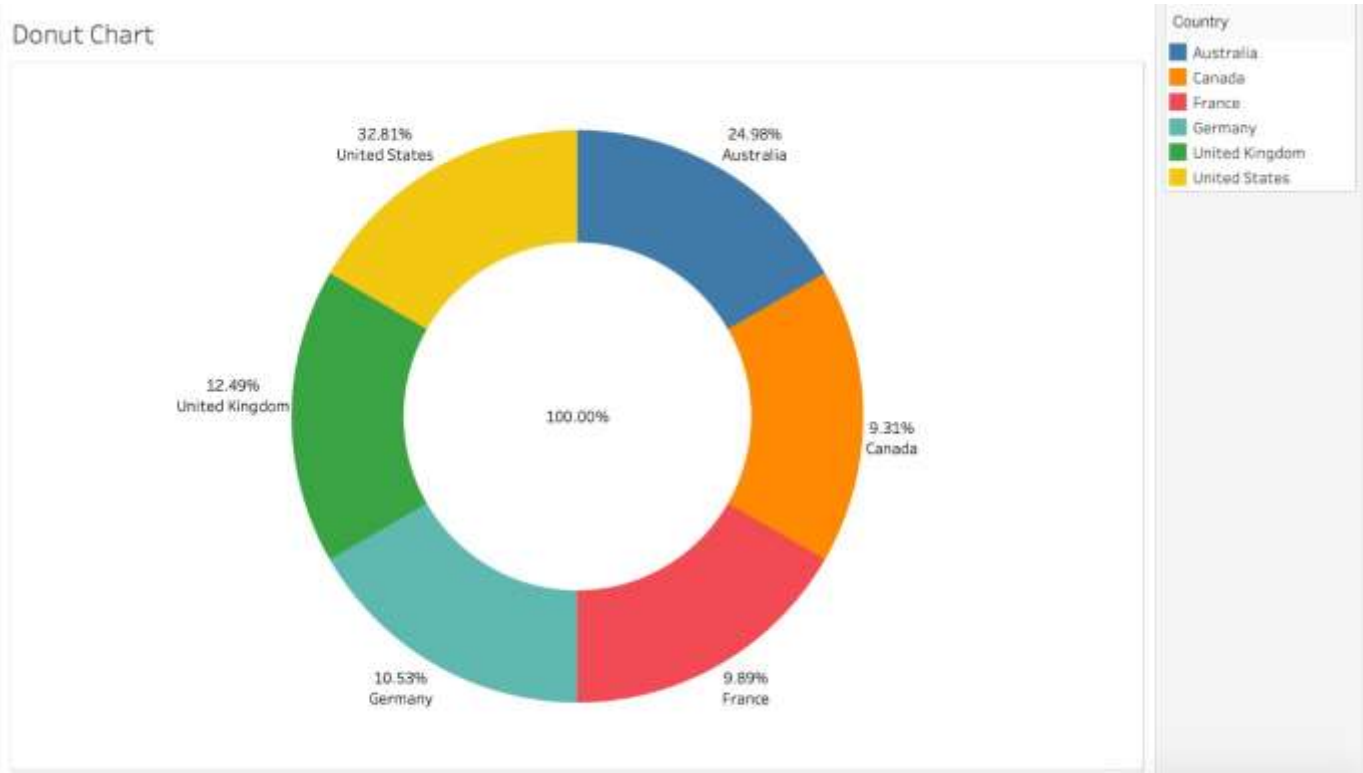
Step3: Right click on axis and select it as dual axis.

Step 4: Right click on sheets and select the format and remove the zero axis line.

Step 5: Select the zero axis two then reduce the size of it and give it any colors.

Step 6: Select the first zero axis chart

Step 7: Drag and Drop country on the colors and label to display all the country in different forms



v) Create a butterfly chart by reversing the bar chart to compare female & male revenue based on product category

Procedure:

Step 1: Create a calculated field for zero axis.

Step 2: Create a calculated field for the Male formula is

IF[CUSTOMER GENDER]="M" THEN[REVENUE]

END

Step 3: Create a calculated field for the Female formula is

IF[CUSTOMER GENDER]="F" THEN[REVENUE]

END

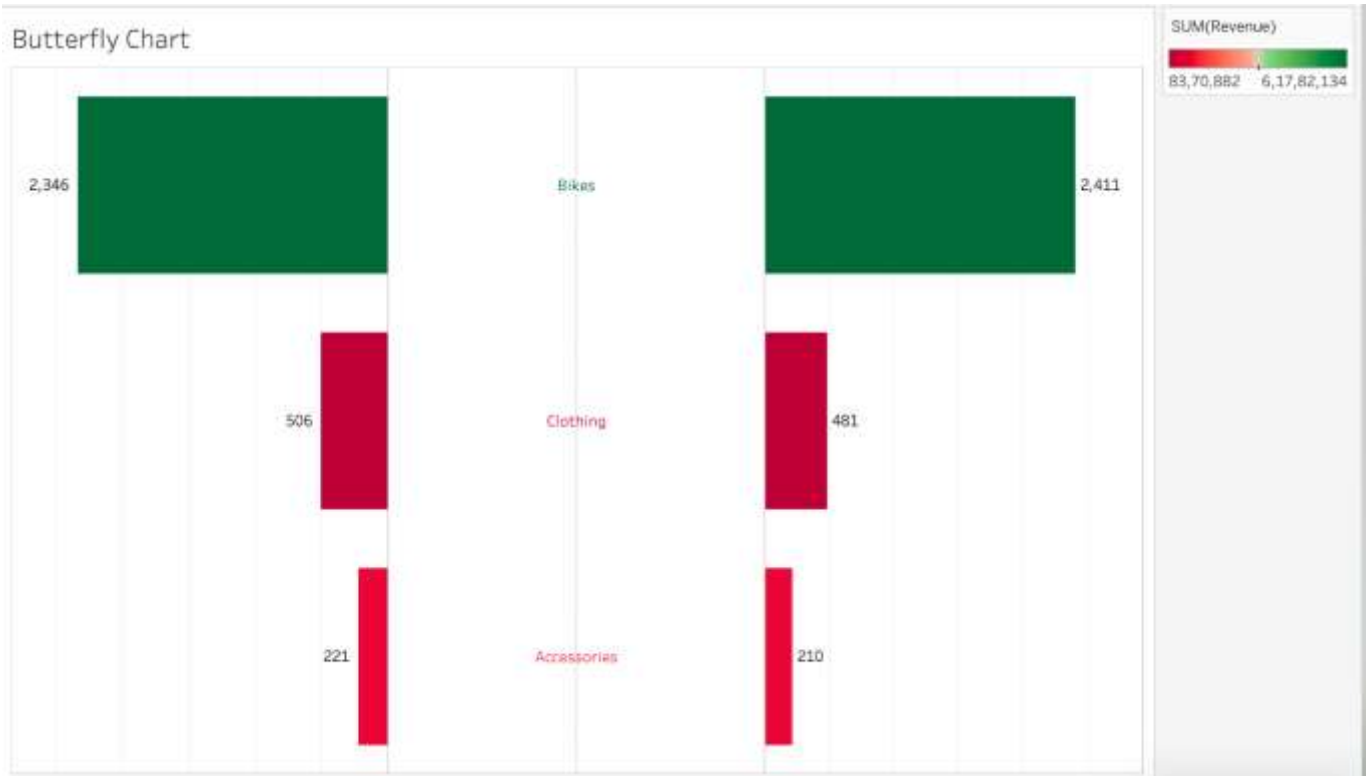
Step 4: Drag and Drop Male and Female on the columns.

Step 5: Drag and Drop the Product category on the rows.

Step 6: Right click on x-axis then select the edit axis and remove the average then select reverse for both the male and female

Step 7: Drag and Drop the zero axis into the columns in between male and female

Step 8: Drag and Drop the Product category on the colours.



vi) Create a calculated field to show the average revenue per state & display profitable & non-profitable state

Step 1: Create a calculated field named as “Revenue per state” and type formula

IF AVG([REVENUE])>=500 THEN ‘PROFITABLE’

ELSE ‘NON PROFITABLE’

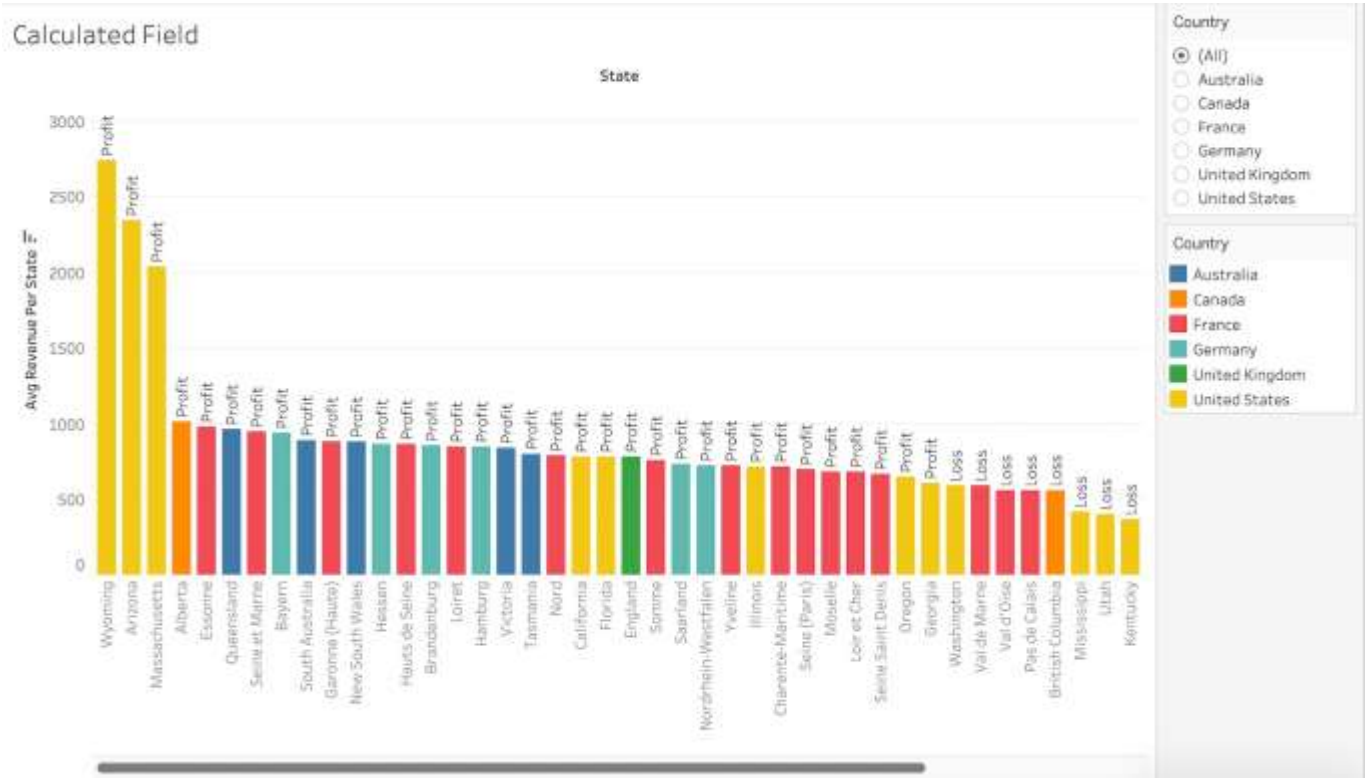
END

Step 2: Drag and drop state into column

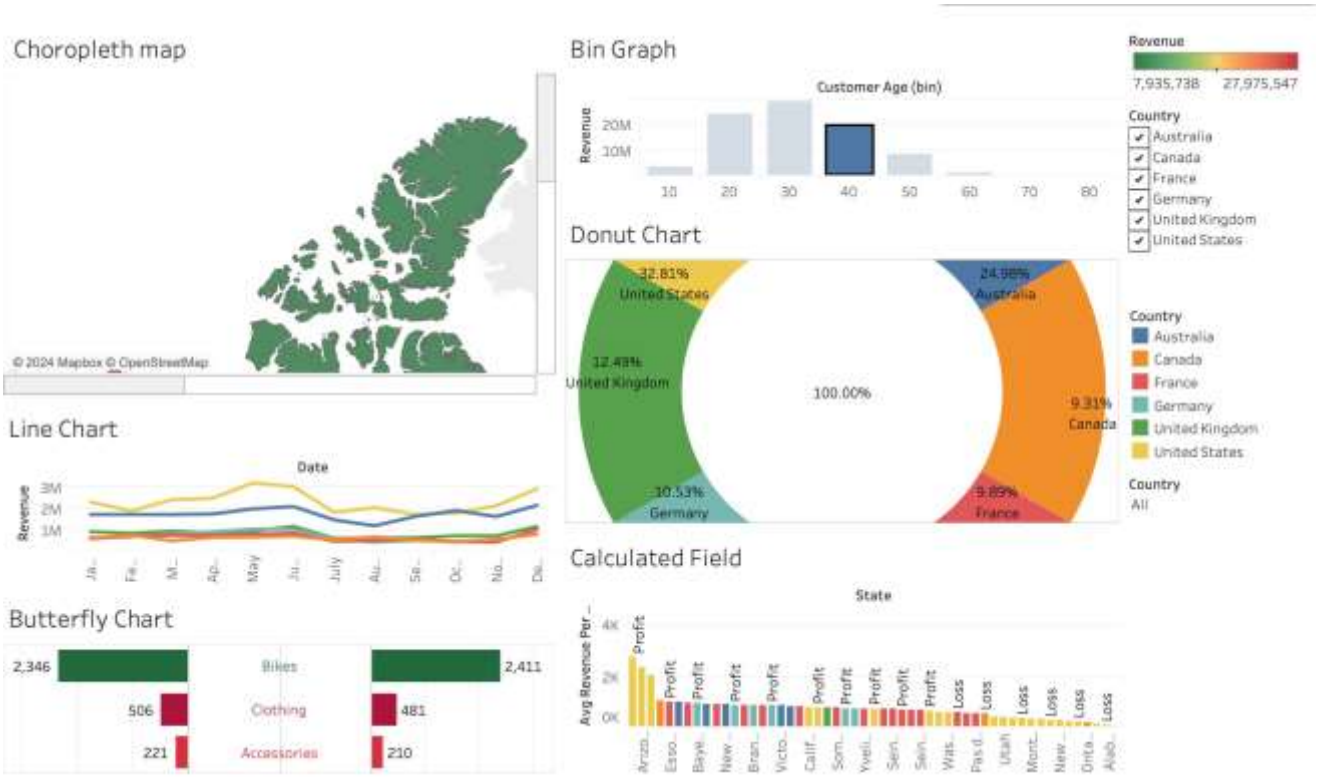
Step 3: Drag and drop revenue per state into rows

Step 4: Drag and drop country into colors, filters and show filters

Step 5:Drag and drop revenue per state in label



vi)Create a dashboard



4. Analysis of GDP dataset

i)Visualize the countries data given in the dataset with respect to latitude and longitude along with the country name using symbol map.

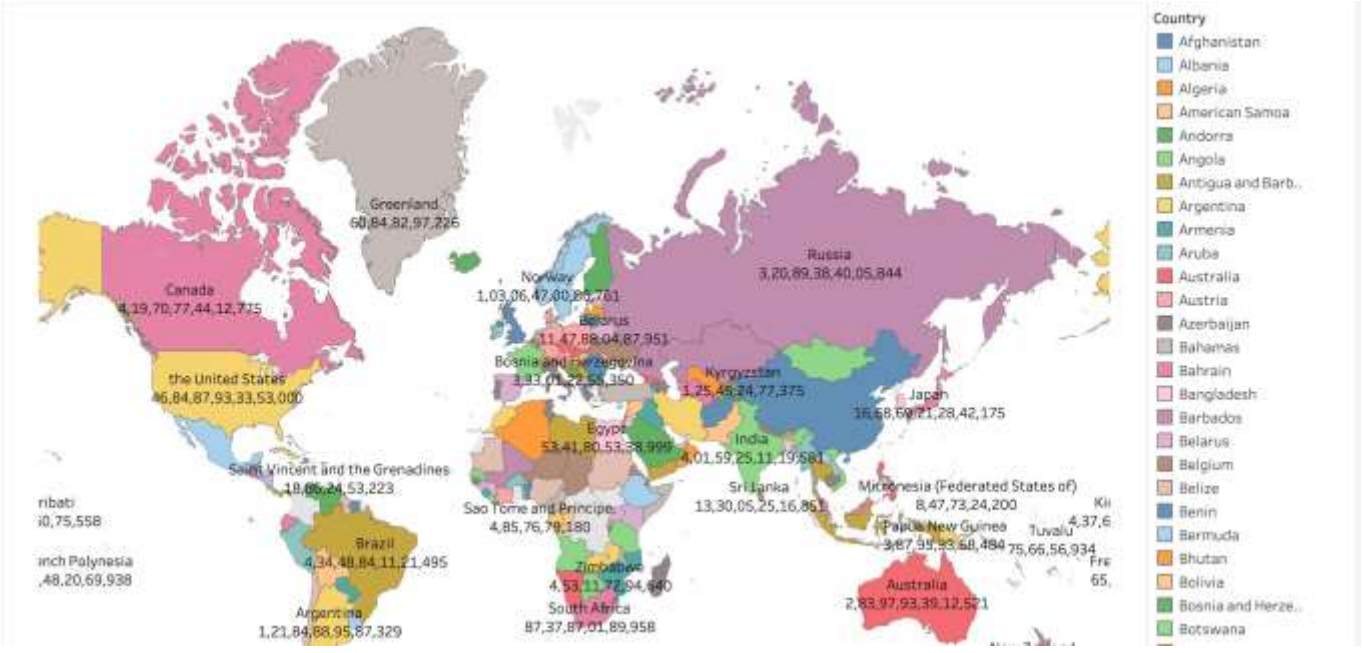
Procedure:

Step 1: Double click on country.

Step 2: Drop the country in label.

Step 3: Drop country in color.

Step 4: Drop GDP in label and change the automatic to map.



ii) Create a bar graph to compare GDP of Belgium between 2006 - 2026

Procedure:

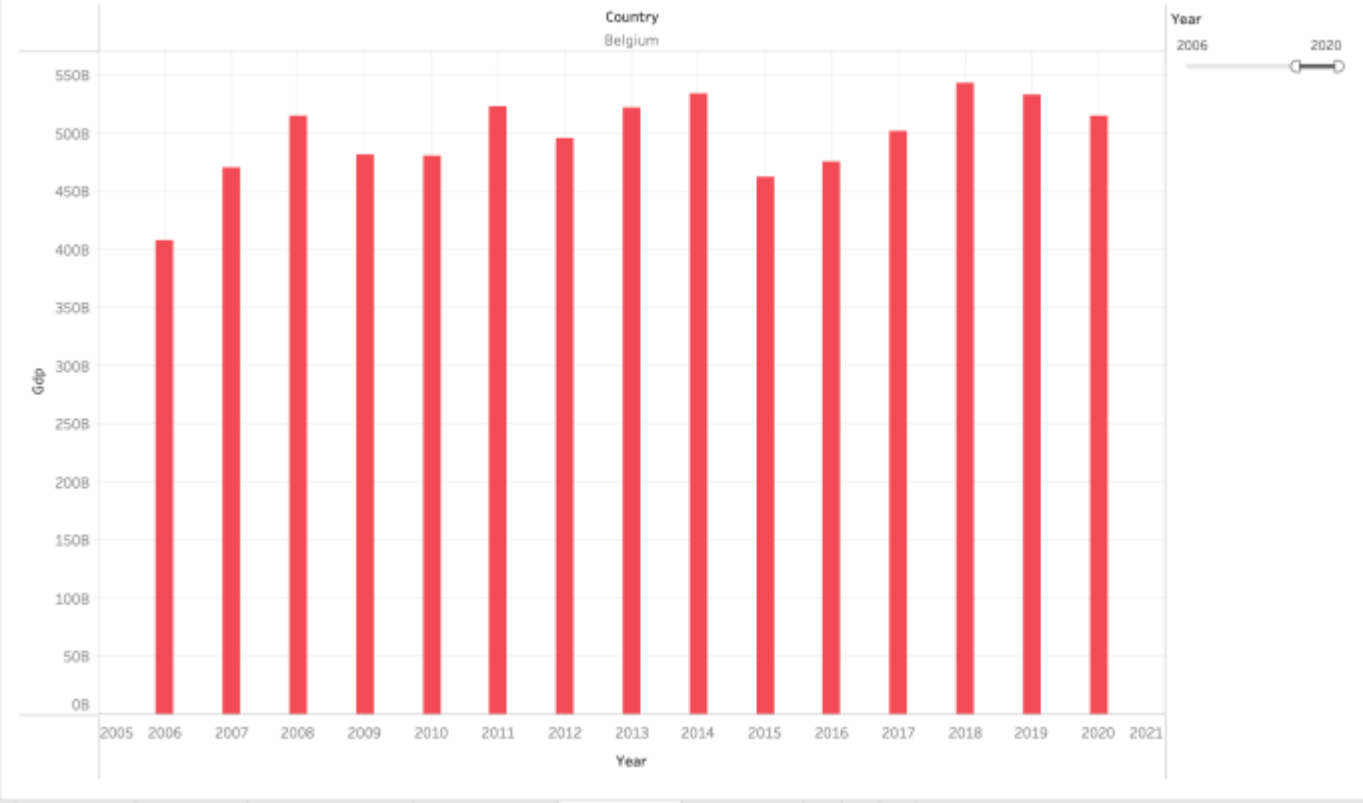
Step 1: Drop year in columns.

Step 2: Drop GDP in rows.

Step 3: Goto country & select the filter, then go to edit filter.

Step 4: Select Belgium and apply.

Step 5: Drop GDP on row then the data will be displayed



iii) Using pie chart, visualize the GDP of India, Nepal, Romania, South Asia, Singapore by the year 2010

Procedure:

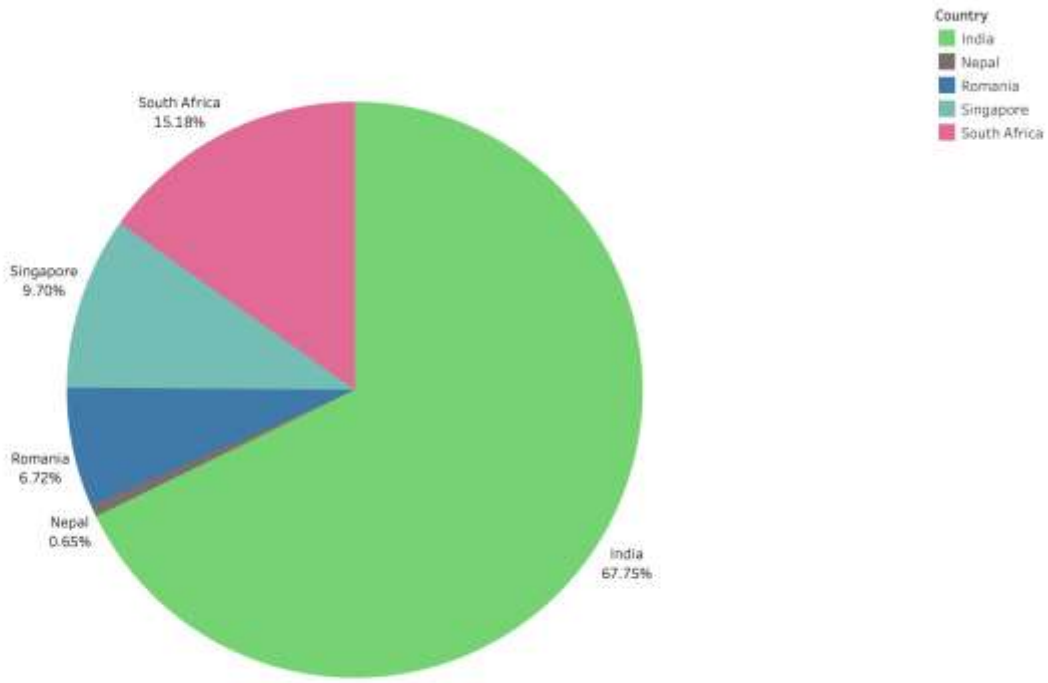
Step 1: Select the pie chart

Step 2 :Drag drop country into filters & select specific countries. Drag and Drop year into filters (click on filter select 2010 year). Drag & drop country into color.

Step 3: Drag and drop GDP into angle.

Step 4: Drag and drop country into label.

Step 5 :Total into percentage total



iv) Visualize the countries Bhutan & Costa Rica competing in terms of GDP.

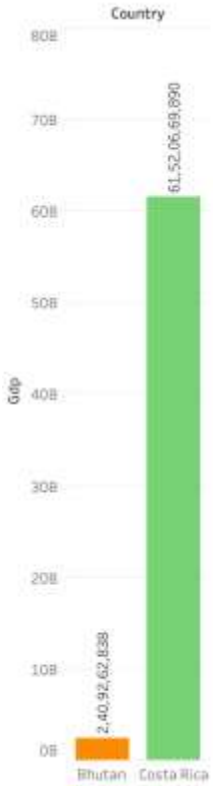
Procedure:

Step 1: Drag and drop country into color.

Step 2: Drag and drop GDP into rows.

Step 3: Drag and drop country into filters.

Step 4: In the filters select the Bhutan and costa rica states.



v) Create a scatter plot or circle views of GDP of Mexico, Algeria, Fiji, Estonia from 2004 to 2006

Procedure:

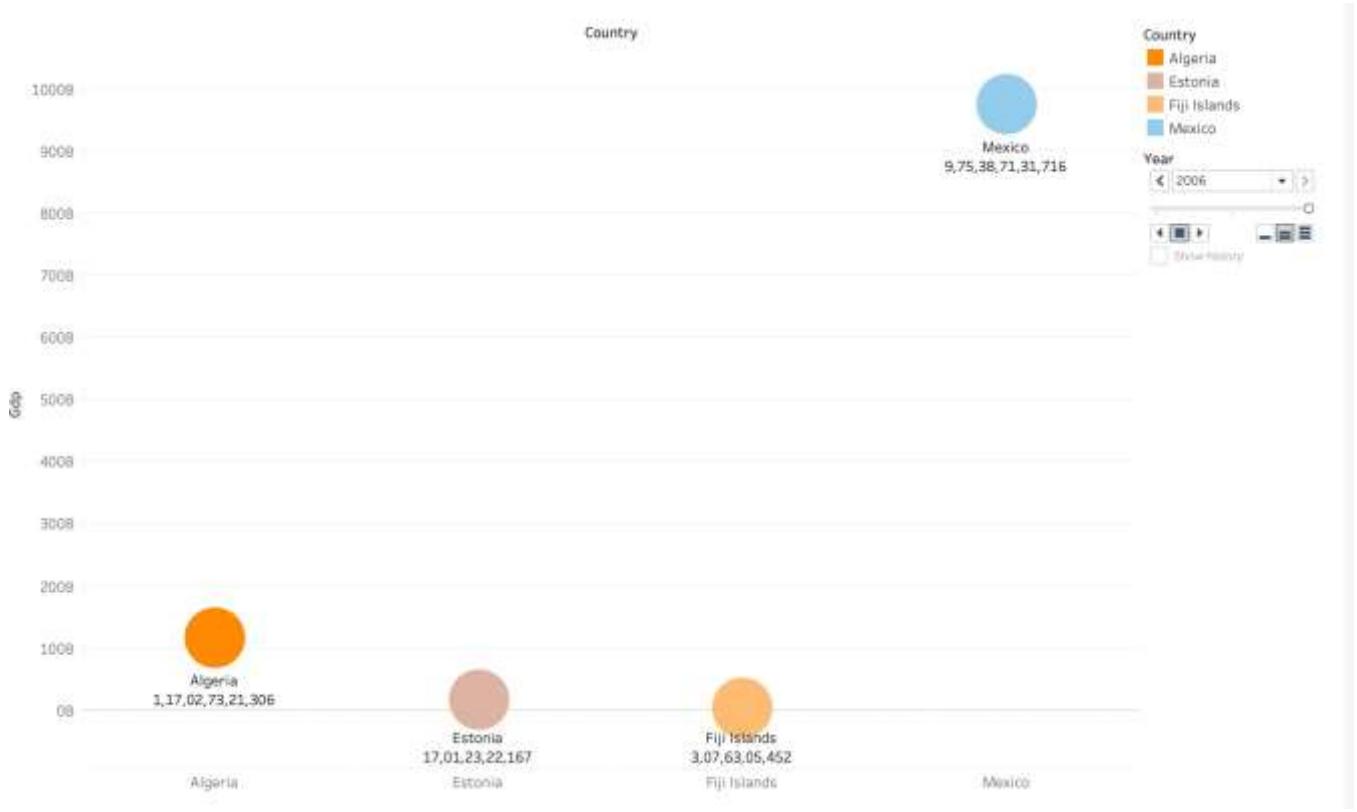
Step 1: Select the circle instead of automatic in marks table .

Step 2: Drag and drop year into column

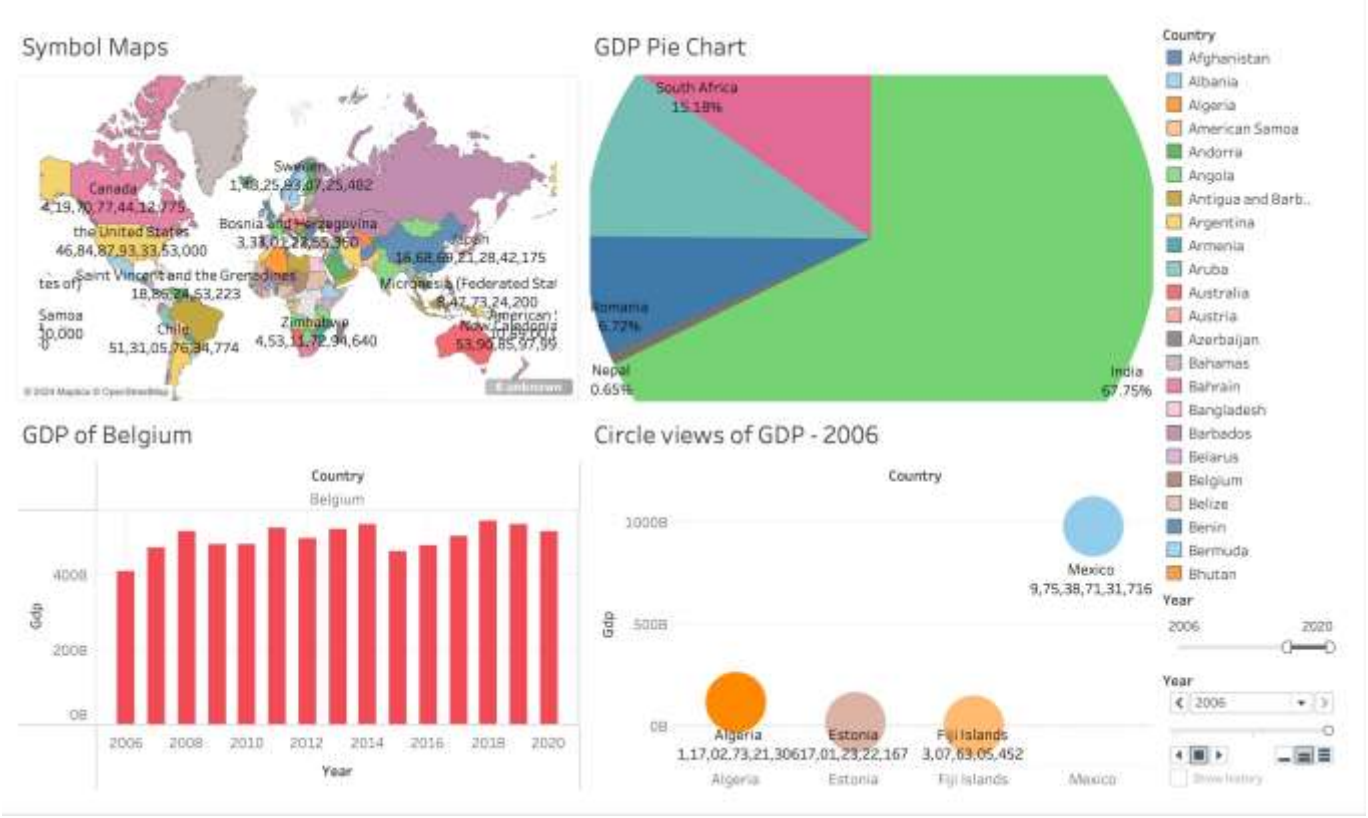
Step 3: Drag and drop GDP into rows.

Step 4: Drag and drop country into filters then select the mexico, Algeria,Fiji and Estonia.

Step 5:Drag and drop country into text



vi)Build an interactive dashboard



5. Analysis of Amazon Prime Dataset:

i) Create a donut chart to show the percentage of movies &tv shows
Procedure:

Step 1: Create a donut chart to show the percentage of movies & TV shows.

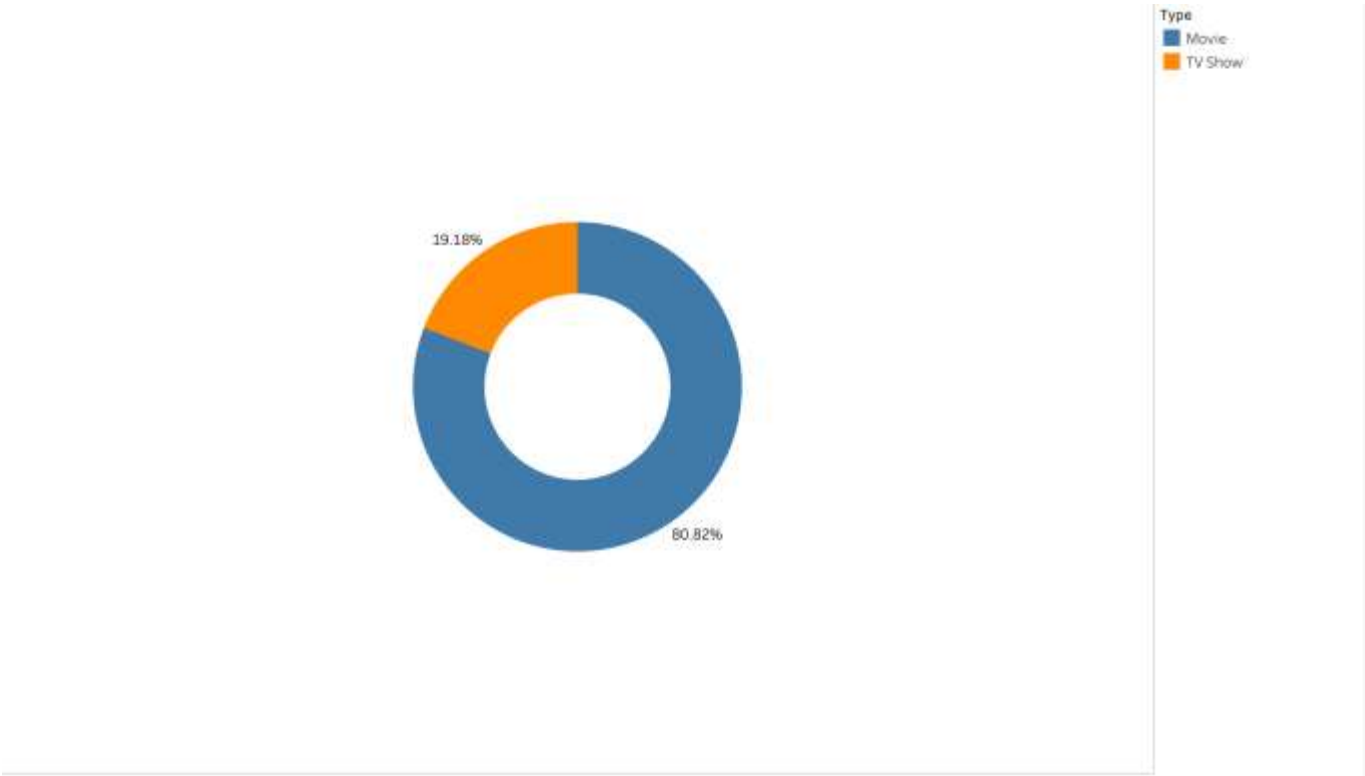
Step 2: Create a donut chart from previous experiment.

Step 3: Drop type on color.

Step 4: Create calculated field called content count Formula = COUNT(type).

Step 5: Drop content count on angle and label.

Step 6: On label of content count right click use quick table calculation and select percent of total



ii) Create a area chart to shows by release year and type

Procedure:

Step 1: On maps select area.

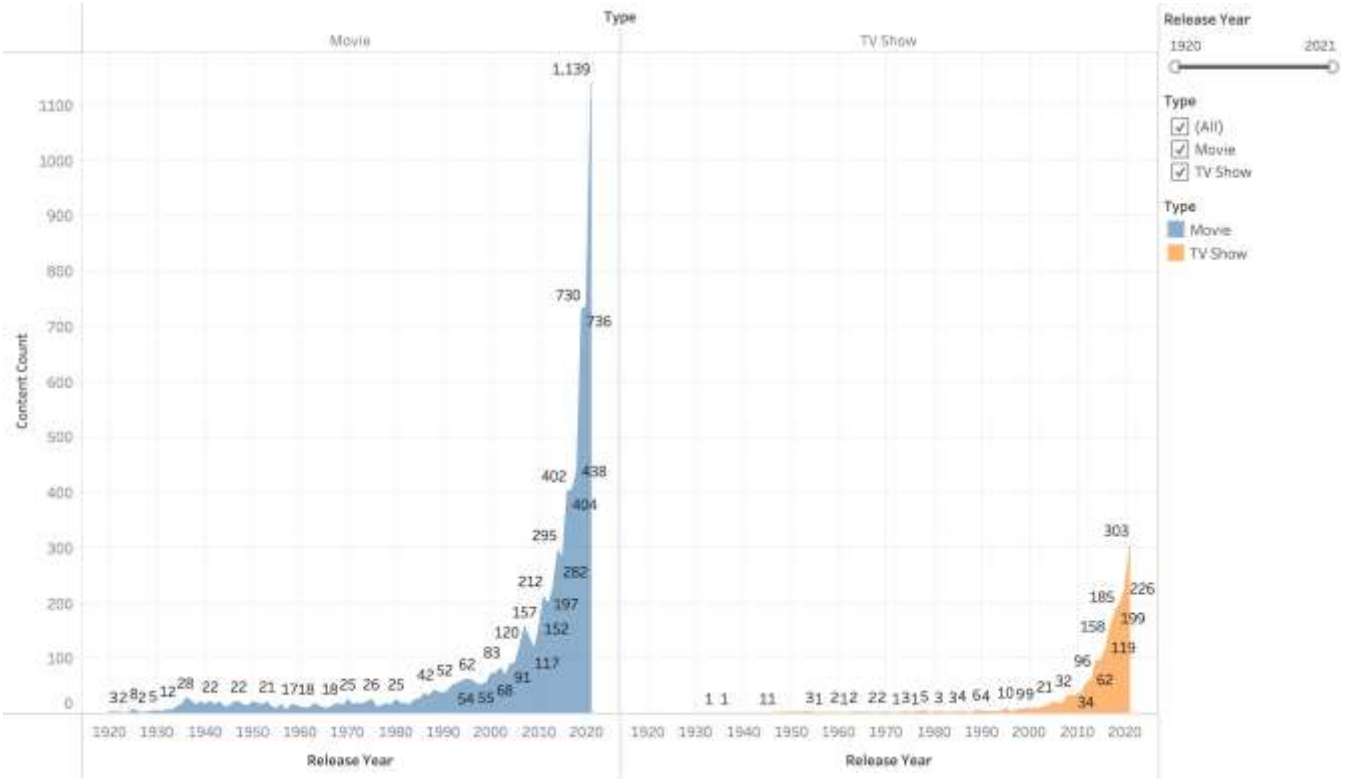
Step 2: On column select type & release year.

Step 3: On rows drop content count.

Step 4: On filter drop type & release year.

Step 5: On colour drop type.

Step 6: On label drop content count



iii) Create a horizontal bar chart to show Top 10 genre

Procedure:

Step 1: Create a calculated field genre count

Step 2: TYPE Count(Listed In) In Formula Section.

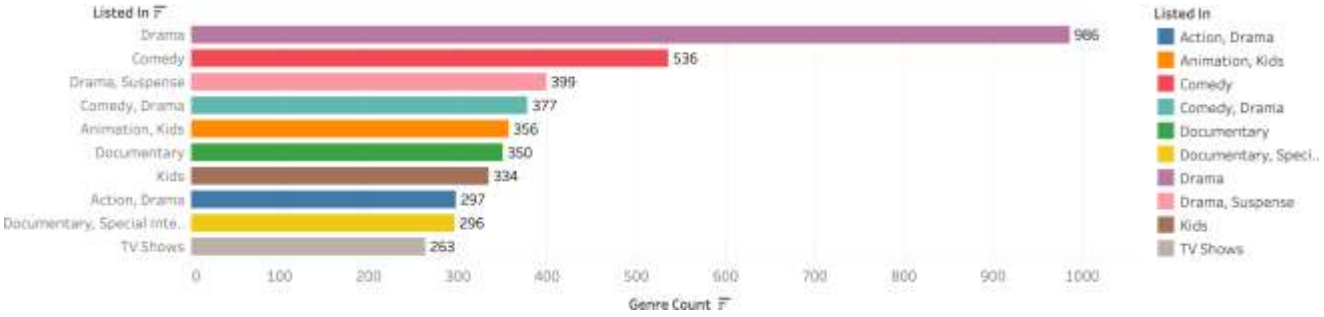
Step 3: On columns drop genre count On rows drop Listed In.

Step 4: Drop Listed In in filters.

Step 5: Select top &select top 10 values.

Step 6: On color drop Listed In.

Step 7: On label drop genre count



iv) Create a map to display total shows by country

Procedure:

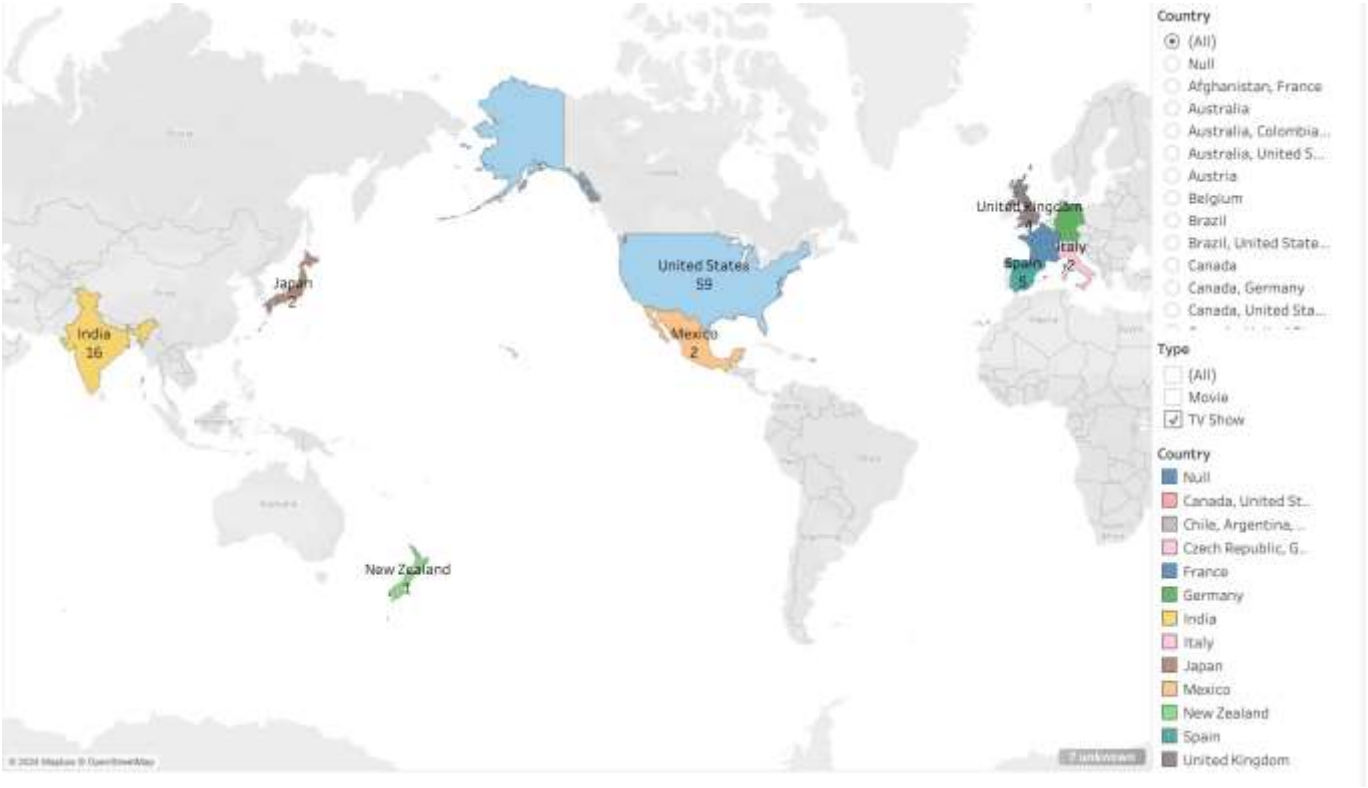
Step 1: Drop type in filters & select TV show & drop country.

Step 2: On maps select map.

Step 3: Drop country on color.

Step 4: Drop country on label.

Step 5: Drop content count on label.



v) Create a text sheet to show the description of any movie/movies.

Procedure:

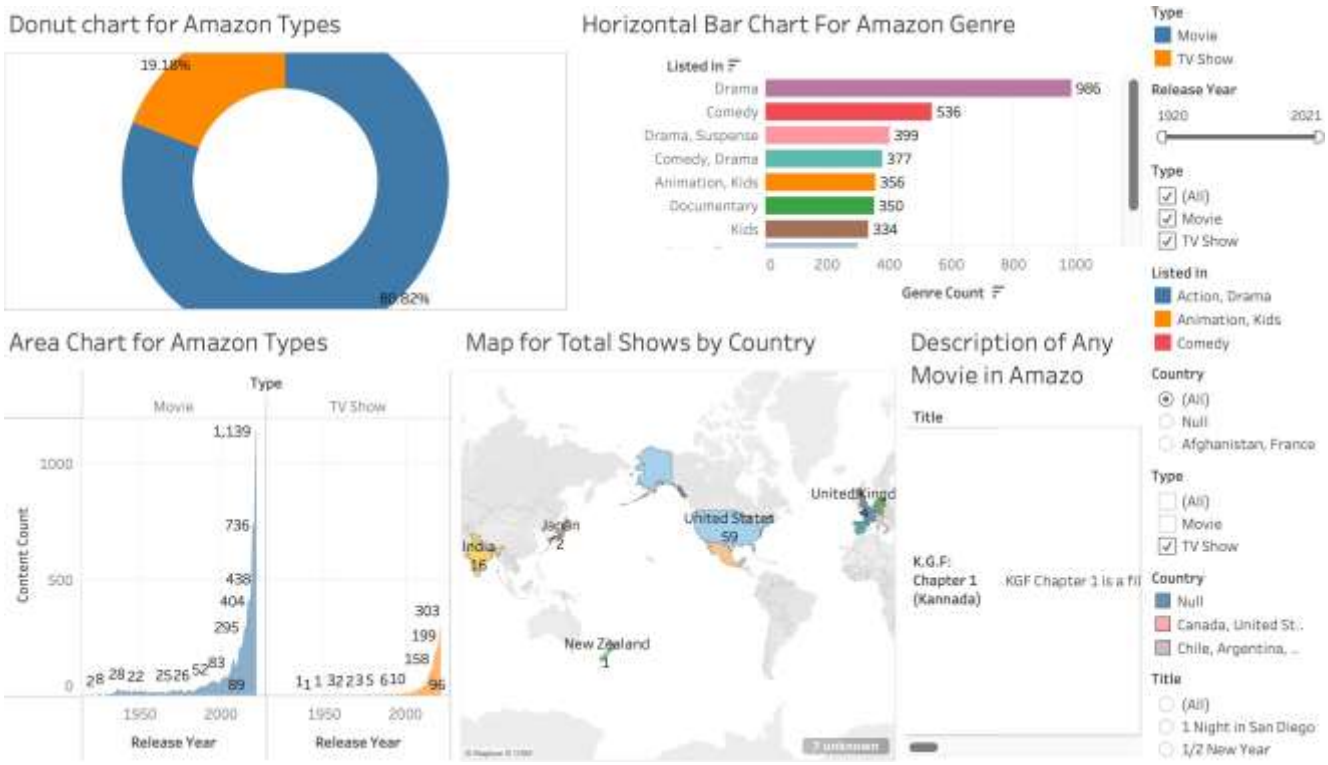
Step 1: Drop title on rows.

Step 2: Drop title in filter & select show filter.

Step 3: Drop description on label.

Step 4: Edit filter by selecting single value list

vi)Build an interactive dashboard



6.Analysis of HR Dataset:

i).Create KPI to show employee count, attrition count, attrition rate, attrition count, active employees, and average age.

Procedure:

Step 1: Create a calculate field for total employee, the formula is

COUNT([EMPLOYEE NUMBER])

Create a calculated field for the attrition count, the formula is

SUM(IF[ATTRITION]='Yes' THEN 1 ELSE 0 END)

Create a calculated field for attrition rate. The formula is

SUM(IF[ATTRITION]='Yes' THEN 1 ELSE 0 END)/COUNT([EMPLOYEE NUMBER]))*100

Create a calculated field for active employee, the formula is

SUM(IF[ATTRITION]='No' THEN 1 ELSE 0 END)

Create a calculated field for average age, the formula is

AVG([AGE])

Step 2: Drag and Drop min(0,0) five times

Step 3: Hide the title and header

Step 4: On marks, select first sum(min0,0) and select text as it's format.

Step 5: click text, select more settings and type total employee in top and set its size as 12 and left assignment is done

Step 6: <AGG>(Total Employee)> size as 22.

Step 7: select second sum(min(0,0)) and repeat the same process, but add attrition count on text

Step 8: On third sum(min(0,0)) use attrition rate as the text

Step 9: on fourth sum(min(0,0)) use active employee on the text.

Step 10: on the fifth, sum(min(0,0)) use average age as a text. If value is zero, then formula has a mistake

ii) Create a Lollipop Chart to show the attrition rate based on gender category.

Procedure:

Procedure:

Step 1: Drag-and-Drop gender into columns.

Step 2: Add attrition rate on the rows.

Step 3: Drag attrition rate and drop it on the rows again to duplicate.

Step 4: Right click attrition rate and select dual axis.

Step 5: Remove every line in the format by using none in the format line.

Step 6: select bar in the first attrition rate and circle in the second attrition rate.

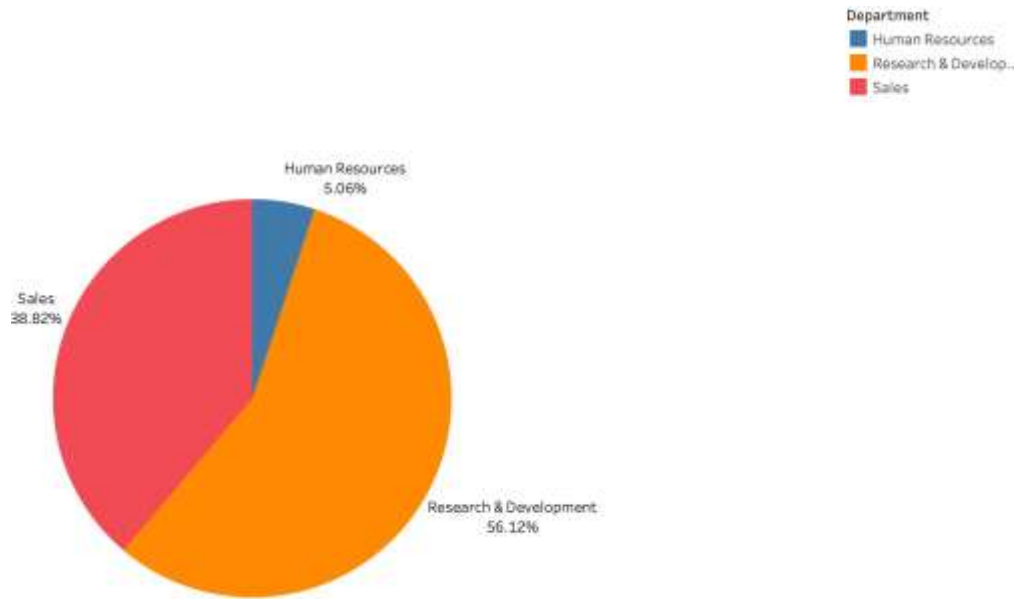
iii) Create a pie chart to show the attrition percentage based on Department Category- Drag department into colours and change automatic to pie. Entire view, Drag attrition count to angle. Label attrition count, change to percent, add total also, edit label.

Procedure:

Step 1: Drag and Drop department on colours.

Step 2: Drag and Drop attrition count on the angle and label.

Step 3: Use quick table calculations as percentage in total to display the percentage.



iv) Create a bar chart to display the number of employees by Age group.

Procedure:

Step 1: Drag and Drop age group onto two columns.

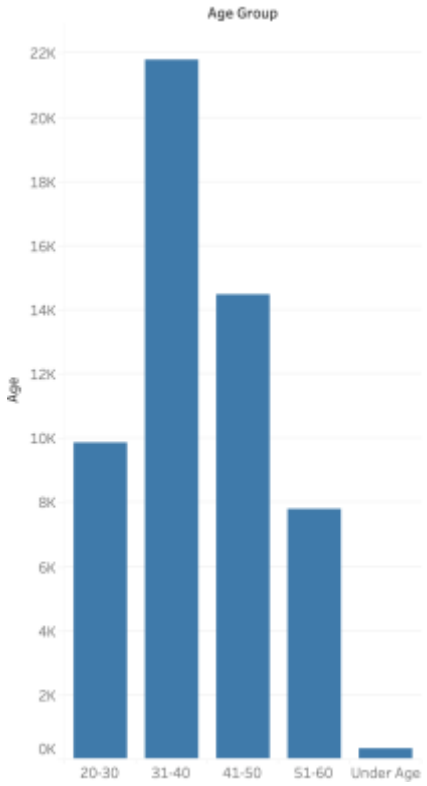
Step 2: Drag and Drop total employee rows.

Step 3: Select it as bar chat.

Step 4: Drag and Drop age group on two columns and drag and drop employee count on the text.

Step 5: Age group calculated field must be created, the formula is

IF [Age]<20 THEN 'Under Age'
ELSEIF [Age]>=20 AND [Age]<=30 THEN '20-30'
ELSEIF [Age]>=31 AND [Age]<=40 THEN '31-40'
ELSEIF [Age]>=41 AND [Age]<=50 THEN '41-50'
ELSEIF [Age]>=51 AND [Age]<=60 THEN '51-60'
ELSE 'Senior Citizen'
END



v) Create a highlight table to show the Job Satisfaction Rating for each job role based on employee count.

Procedure:

Step 1: create a calculated field for job satisfaction rating and the formula is

IF[JOB SATISFACTION]=1 THEN 'Dissatisfied'

ELSEIF[JOB SATISFACTION]=2 THEN 'Neutral'

ELSEIF[JOB SATISFACTION]=3 THEN ' Highly satisfied'

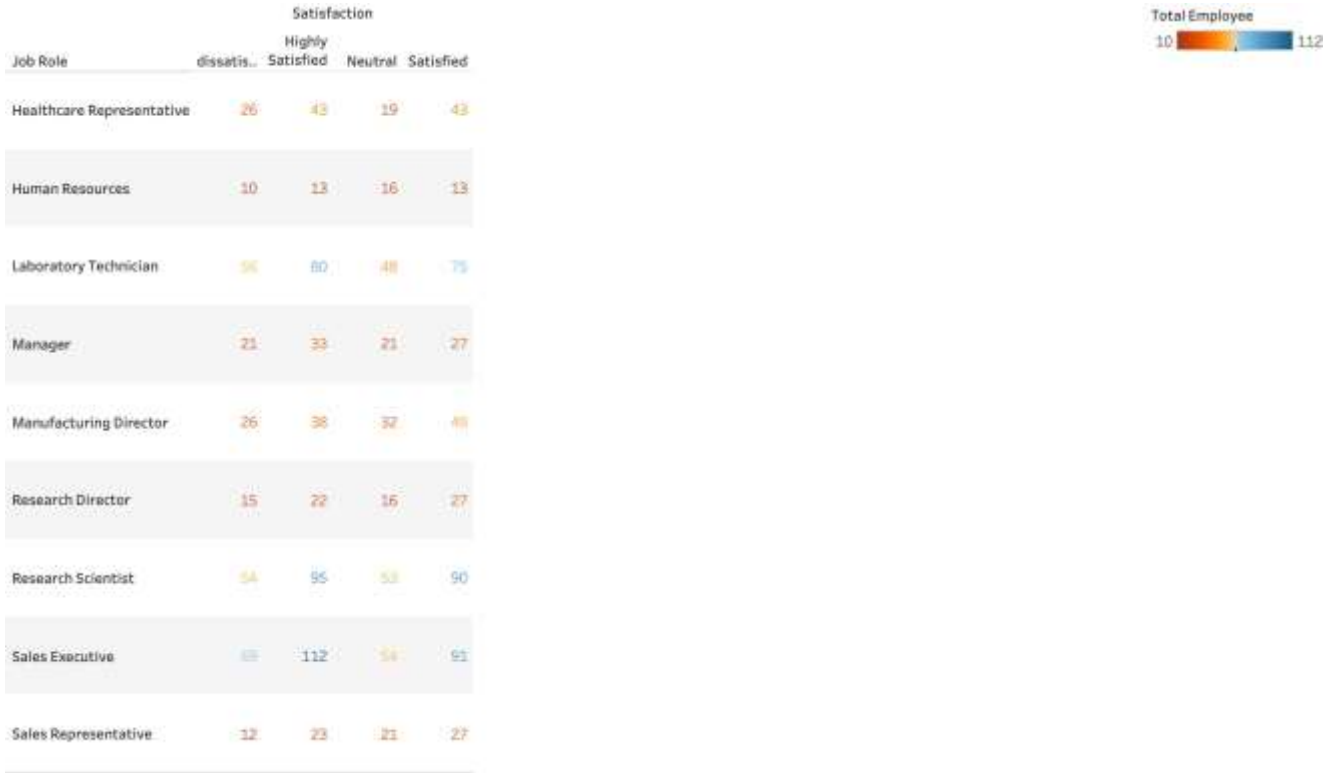
ELSE 'INVAILD SCORE'

END

Step 2: Drag and Drop job satisfaction rating into columns.

Step 3: Drag and Drop job roles on rows.

Step 4: Drag and Drop total employees on colours and text.



vi) Create a horizontal bar chart to show the attrition count for each Education field Education field wise attrition – drag education field to rows, sum attrition count to col.

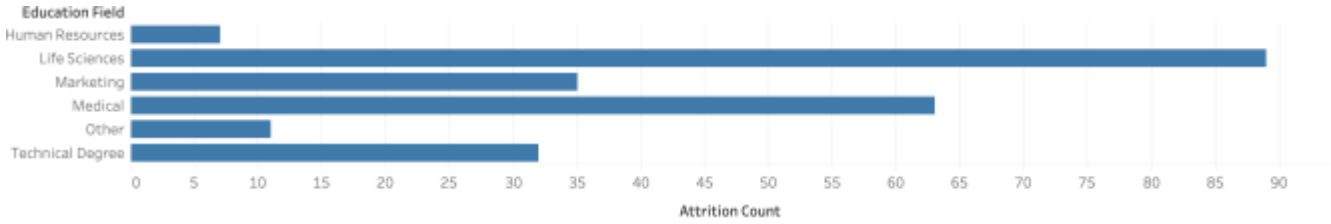
Procedure:

Step 1: Drag and Drop attrition count on to columns.

Step 2:Drag and drop education field on to rows.

Step 3:Drag and Drop education field on to colours.

Step 4:Drag and Drop attrition count on to labels.



vii) Create multiple donut chart to show the Attrition Rate by Gender for different Age group.

Procedure:

Step 1:Drag and drop gender on to columns.

Step 2:Drag and drop age group on to colours

Step 3:Drag and drop attrition rate on angle and label.