ASSIGNMENT 2
COVER SHEET

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LECTURERS NAME = UDAY KAPUR

DUE DATE = 24/10/2021

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WORD COUNT (EXCLUDING BIBLIOGRAPY)= 734

URL:

https://adishwarverma.github.io/Ass2-Fit3179/

Domain, Why and Who.

The Domain of this visualization is to portray different types of Tourisms in Different Australian States. The Main objective of this visualization is to understand how different Types of Tourism is found in our Country and how different states cater to these Tourisms because of their own personal uniqueness. It is aimed at general public making it simple enough for everyone to understand irrespective of their background and nationality. Who want to visit or want to know about tourism in Australia.

What: Description of Data.

Data used in this visualization was taken from Kaggle.com and was populated in excel graph sheets and python. Different techniques were used in python to cleanse the data using different libraries such as Pandas and Numpy and for sorting Excel was used. The author and Compiler of the dataset is Luis, Blanche and the data set is for study related use.

The General Data set consists of following data types:
(Categorical Attributes) = Region,State,Purpose
(Ordinal Attributes) = Quarter.
(Quantitative Attributes) = Trips.

Why And How.

Choropleth Map

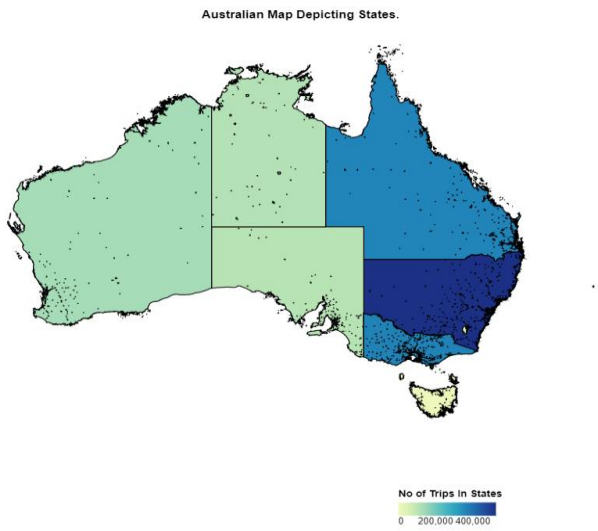

Fig1: Choropleth Map

Choropleth maps are best suited for illustrating simple and easy to recognize data patterns, display divided geographical areas or regions that are coloured, shaded or patterned in relation to a data variable. To make the reader understand the view easily and beautifully. I have used this as the starting Idiom in my Visualisation representing tourism in Australian states and how they compare with each other. The Marks used are:-(Geographic regions) and channels used are:-(Luminance).

Pie Charts:-

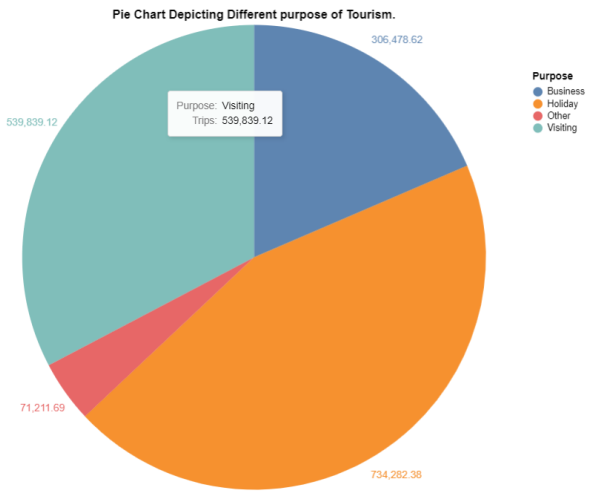

Fig 2:Pie Chart

Pie charts are best Suited for showing the relationship of parts to the whole when there are a small number of levels. As in my case I have 4 levels(Purpose) and can easily

compare each purpose with the other. I have used text annotations to tell the total_trips of that purpose in the time span of 18 years. Marks used are Area and Channel used is Angles.

BAR CHARTS:-

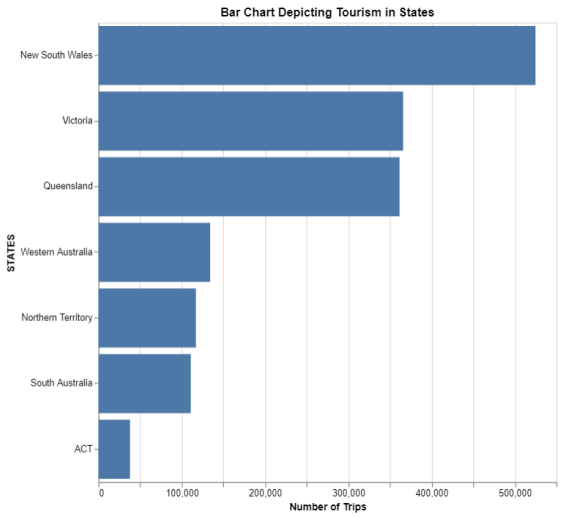

Fig3 : Bar Chart

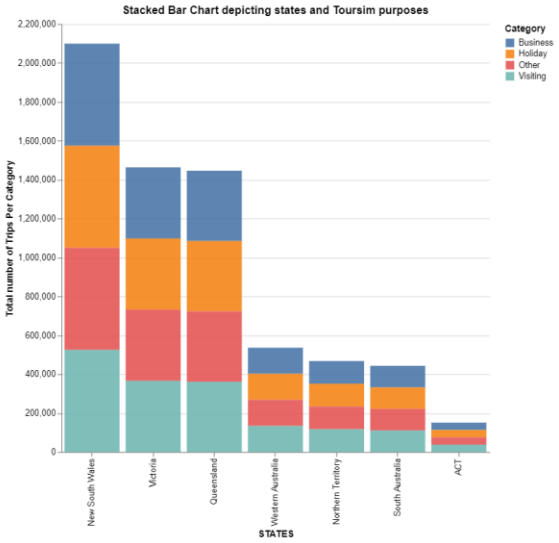

Fig4: Stacked Bar Chart

The best way of encoding quantative attributes is to use a common position scale that is a bar chart. In (Fig3) I have used a simple bar chart to compare the total_trips to each state over a period of 18 years and a stacked bar chart (Fig4) to see the different proportion of different types of tourisms in the different states. Stacked bar charts are also useful for comparing each subcomponent.

For (Fig3.):-

Marks:- Line

Channels:- Length.

For (Fig4):-

Marks:-Line.

Channel:-Length.

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Line Chart :-

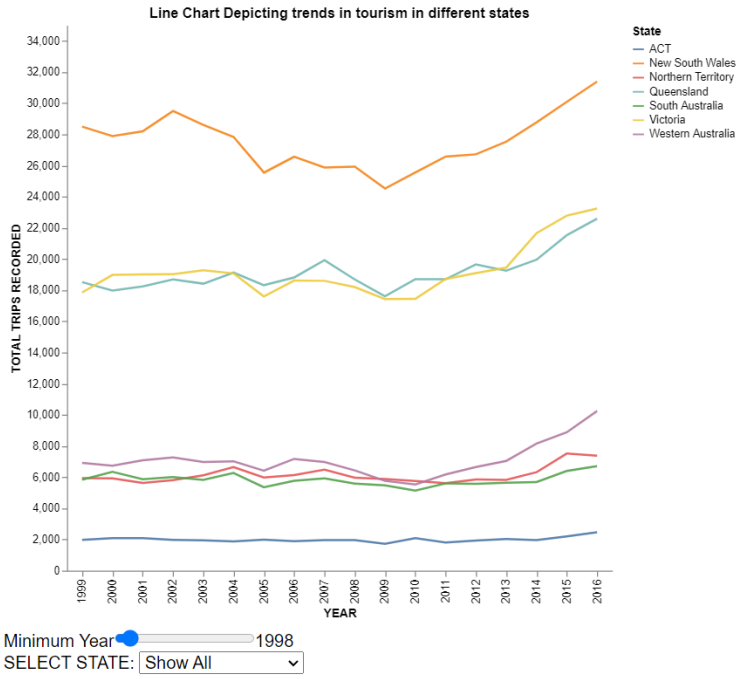


Fig5 : Line Chart

Line charts are used to compare the overall trends i.e (Tourism in Australia by different States) over time (refer Fig5). The Marks used in Line Charts are Points and line connection. The Channel Used to depict quantitative values is vertical position(Total Trips Recorded). I have used line chart here because it depicts the overall changes over time and helps the reader to get a wider view of the visualization.

Design

Layout

The text is located on the left side to create sight lines. Vertical sight lines separate both the text(Left-Side) and Idioms(Right-Side). Horizontal sightlines have also been placed so that the reader can distinguish between text and Idioms related to each other.

Limited white spaces have been used and sight-lines align left and top parts of page. As limited white spaces have been used resulting in Text proximity hence following Gestalt principles. And no Image is used referring to lesser chart junk.

COLOR

The colors for titles and heading have been used the same as well as background color is also kept same for the latter. Making it more appealing to look and easy to read. Also the colors used are color blind friendly.

Figure-Ground

Hierarchy is created using different fonts, sizes and colors. Most text is in yellow however headings and titles have used darker shades and bigger fonts making it easier for user to know what to read first and latter. Dark black lables and markings have been used for charts making it appear different from texts.

Storytelling

The Visualisation starts with a eye catching heading with important information about Australian tourism and how it impacts the Gdp of the nation. Then to right of it one can see a beautiful Map of Australia depicting tourism in different states. After this different headings, idioms and text depict how various types of tourisms In different states impact Australian Tourism.

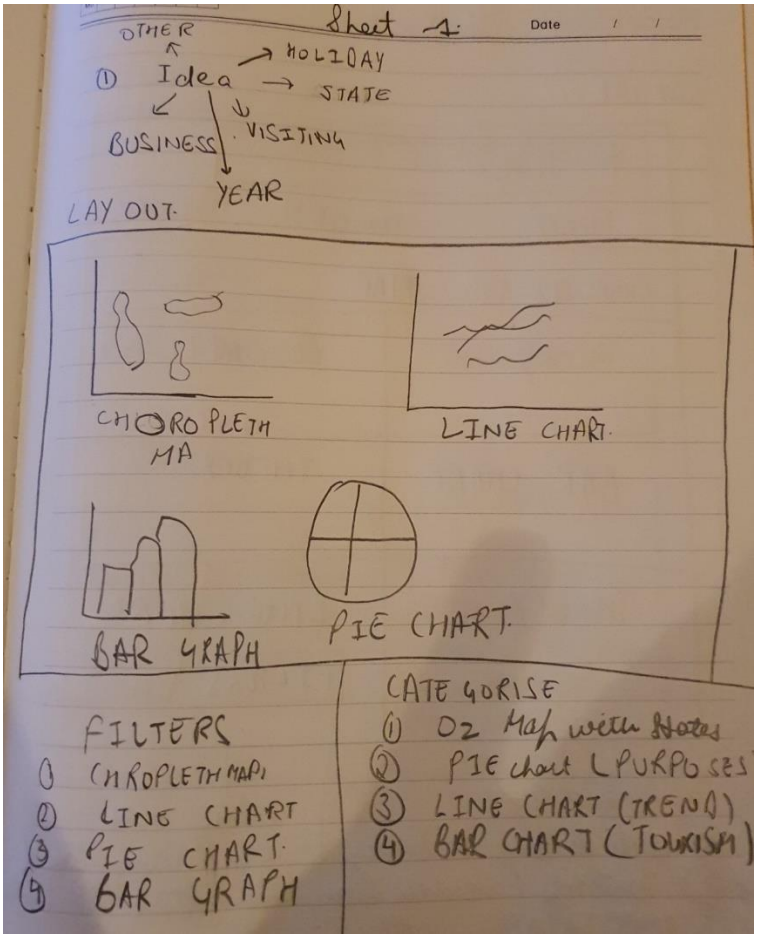
Bibliography:-

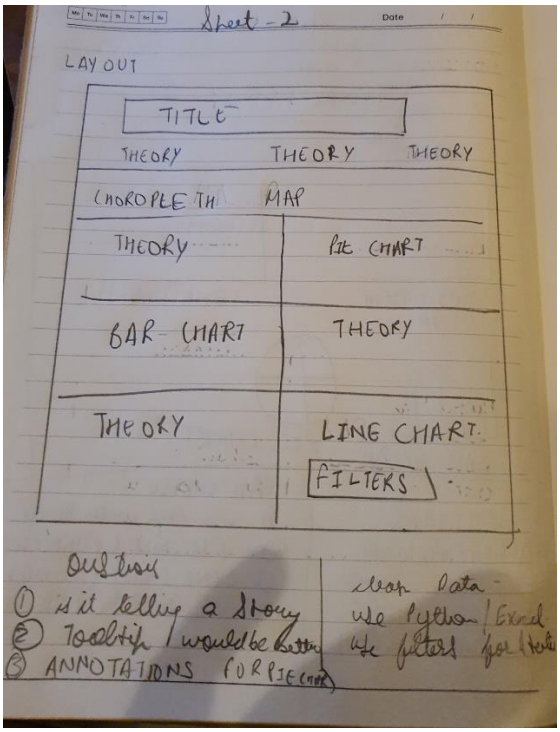
1.Luis,Blanche (2019).Tourism.Kaggle.com
Data. https://www.kaggle.com/luisblanche/quarterly-tourism-in-australia

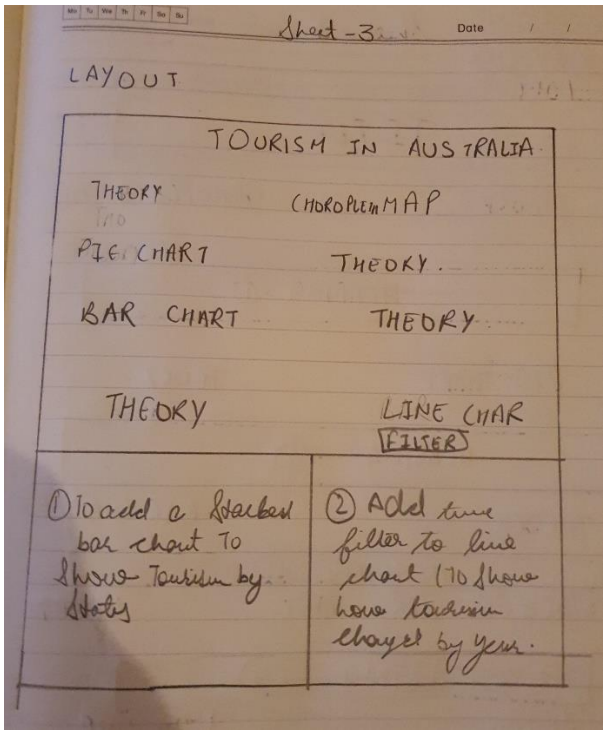
2. **A**ustralian Statistical Geography Standard (ASGS)(2016,July): Volume 1 - Main Structure and Greater Capital City Statistical Areas: https://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/1270.0.55.001July%202016?OpenDocument

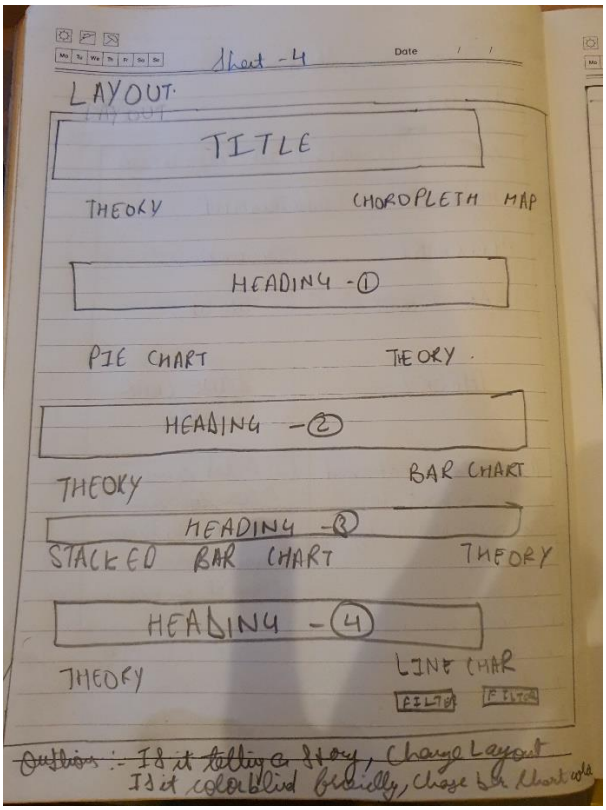
3. Other Information Was taken from Wikipedia.

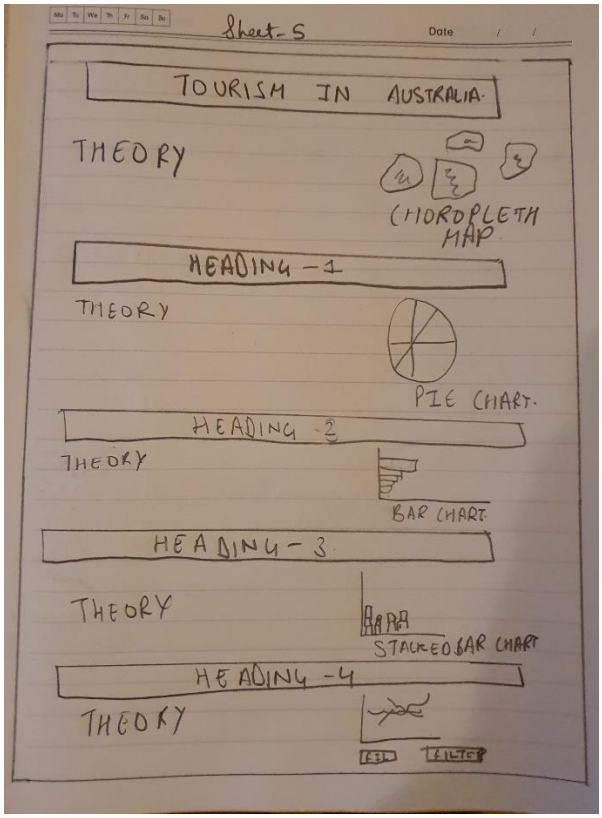
4. Tourism Australia|The Economic Importance of Toursim. https://www.tourism.australia.com/en/markets-and-stats/tourism-statistics/the-economic-importance-of-tourism.html




Sheet - 2
Date
LAY OUT
TITLE
THEORY
THEORY
THEORY
CHOROPLE TH
MAP
THEORY
PIE CHART
BAR CHART
THEORY
THEORY
LINE CHART.
FILTERS
Outlook
① is it telling a story
② Tooltip / would be better
③ ANNOTATIONS FOR PIE CHART
clean data -
use Python / Excel
use filters for


Sheet - 3
Date
LAYOUT
TOURISM IN AUSTRALIA
THEORY
CHOROPLETH MAP
PIE CHART
THEORY.
BAR CHART
THEORY
THEORY
LINE CHAR
FILTER
① To add a stacked bar chart To show Tourism by States
② Add time filter to line chart (To show how tourism changed by year.


Sheet - 4
Date
LAYOUT
TITLE
THEORY
CHOROPLETH MAP
HEADING - ①
PIE CHART
THEORY
HEADING - ②
THEORY
BAR CHART
HEADING - ③
STACKED BAR CHART
THEORY
HEADING - ④
THEORY
LINE CHAR
FILTER
FILTER
Outlook :- Is it telling a story, Change Layout
Is it colorblind friendly, Chose bar chart


Sheet - 5
Date
TOURISM IN AUSTRALIA
THEORY
CHORDPLETH MAP
HEADING - 1
THEORY
PIE CHART.
HEADING - 2
THEORY
BAR CHART
HEADING - 3
THEORY
STACKED BAR CHART
HEADING - 4
THEORY
FILTER
FILTER