

# Data visualization

CA2

## Infographic Report

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## Dataset background:

The dataset selected for this infographic is all about tourism in Berlin. The dataset contains data from 2010 – 2016 of tourist's in Berlin. We have selected this dataset as tourism in Berlin drastically increased in the last decade. The dataset was downloaded from statistic for Berlin, Brandenburg and was referred from dataduo. The major attributes of this dataset are monthly and yearly number of guests travelled in Berlin, Countries from which people arrived at Berlin, number of nights spent in Berlin. Another, dataset was selected which contained information about the number of tourist travelled in Brandenburg state of Germany, where Berlin is situated. The infographic is based on the various visualizations represented from the above selected dataset.

## Process:

Designing an infographic was a wonderful task. *“The goal is to transform data into information, and information into insight”* by Carly Fiorina. Infographics is a medium from where we can share our story using various visualizations, graphics, text and more. The process of developing visualization started with a rough sketch where we generate our idea with pen and paper then visualize it using various visualization tools. Then we selected our dataset in visualization tool (tableau) from the data source mention above and started creating graphs for our infographics. In the process for making graphs in tableau we, first analyzed the data and which graphs can be implemented on the dataset for an effective and attractive infographic. So, for this infographic the main attributes were how many tourists came to Berlin, from where do maximum tourist come from, in which months there are maximum number of tourists visit in Berlin, yearly growth of tourism in Berlin. Thus, we have created different graphs such as bar graph, heatmap and state map of Brandenburg in tableau which signifies all the above queries. These graphs and visualizations were exported to (.EMF) file. Adobe illustrator was used to open the (.EMF) files and the files were converted in vector format to maintain its quality in terms of pixels and sharpness. The illustrator file then is converted to photoshop file (.PSD) using the export function. Photoshop consists of large number of functions to create mesmerizing infographics. The text box was used to create the text and title for the infographic. The graphical title tourism in Berlin was inserted using photoshop attributes. The background

was selected in photoshop. The rectangle tool function was used to create boxes in which all the visualizations were aligned. All the other vector graphics from freepik were added to the infographic to make it more efficient and meaningful. Thus, the combination of all these tools and features lead into a beautiful infographic which contains all the relevant information about tourism in Berlin.

## **Specification:**

The infographic created is based on tourism in Berlin. Berlin the working capital of Germany, one of the biggest hubs in Germany, located in the heart of Brandenburg state is among the top tourist places in the world. Berlin is the most visited tourist spot in Germany, tourism in Berlin has rapidly increased in recent years. The infographic created represents the number of tourists in the Brandenburg state in Germany in which Berlin is highlighted for maximum number of tourist attracted with a grand total of 12.3 million visitors in year 2010. The tourism in Berlin showed a great upscale from year 2010 to 2016. It gradually increased 9% in 2011, then to 21% in 2012, 27% in 2013, followed by 33% and 40% in year 2014 and 2015 respectively. Finally, in 2016 it almost increased to 44% from 2010. Thus, it can be concluded that in the recent six years span Berlin has developed itself and attracted a lot number of tourists.

This huge amount of increase in tourism made a room for analysis of this tourists for further opportunities in Berlin. The analysis was carried with the help different visualization, graphs and was presented of infographic. Infographic answers following questions who are the maximum number of travelers in Berlin, where do the maximum travelers come from? The maximum number of tourist in Berlin come from United Kingdom acquiring 17.4 % of total tourism in Berlin. USA stands second in the list contributing 12.3 %, followed by Netherlands with 12% tourists. People from Italy and Spain are contributing 10.8% and 9% respectively. These are the top five countries from where maximum people love travelling in Berlin.

The infographic also focuses on which are the popular months in a year, when there are maximum tourists in Berlin. There was a different scenario in 2010 and 2011 where maximum people used to travel in the months of September and October. This scenario

changes from the year 2013 and onwards where people started travelling from the month of May to October in Berlin. In the year 2015 July was the busiest month, in year 2016 July and September were the busiest months. July and October may be the most preferred months to travel because of the geographical location and temperature in these months might be best comfortable for the people travelling to Berlin around the world. Thus, July and September are peak months for tourism in Berlin which can be a lead for number of businesses in Berlin.

## **Justification:**

The infographic was created using combination of various tools such as Tableau, Adobe Illustrator and Adobe Photoshop. *“The classic distinction between infographics and data visualization concerns the format and the content”* (Kirk, 2016). We have used wireframe to create the infographic, the layout selected for this infographic is a customized layout created specifically in Adobe Photoshop for tourism. The visualizations are generated in Tableau, as it is user friendly software, creates various graphs with less efforts according to the attributes of the dataset. The style and fonts selected for title of the infographic are attractive, easy to read and are linked with the background. Style selected for the text in infographic is professional sans font. Graphics were added with text and graphs for the ease of understanding the infographic. The background of the infographic was selected to highlight the story of tourism in Berlin. The background is filled with different colors to represent different aspects of tourism. The rectangle boxes are setup in Photoshop for higher visibility of graphs and visualizations.

## **Technologies:**

The infographic was created using three major technologies: Tableau, Adobe Photoshop and Adobe Illustrator.

### **Tableau:**

Tableau was used to generate graphs and visualization from our dataset selected, from above mentioned data source. These visualizations then where exported to insert in the infographics. Tableau supports various types of graphs so we have used the Brandenburg map, visualized map was used to determine number of tourists in Brandenburg including

Berlin. Heat map was used to count the number of tourist in every month and year. From the visualization's in the infographic we can conclude that maximum number of tourist in year 2016 were in the month of July.

### **Adobe Illustrator:**

The tableau files were exported to (.EMF files) which are read by Adobe illustrator. Adobe illustrator was used to convert the tableau files into vector form to increase sharpness and pixels of the graphs created. Then this illustrator files are exported to photoshop files (.PSD) for further implementation of the infographic.

### **Adobe Photoshop:**

Adobe Photoshop was used for creating the graphics and all other editing's were done in same. In Photoshop, first we have added the graphs from tableau and then some vector graphics from freepik were included in the infographic. The alignments of the graphs, selection of background, generating the title, insertion of text with text box and assigning the fonts were carried in photoshop.

### **Reflection:**

This infographic was created with the use of ten steps for creating an infographic by Hyperakt's Josh Smith. Every step played a crucial role in developing the infographic. Thus, in our infographic gathering the data, creating a story from the dataset, identification of problem and creating visualization out of them was a bit difficult task as we must keep all the techniques, fonts, color in mind to make an eye-catching infographic. Building a wireframe and choosing format for an effective infographic was a moderate task after developing and analyzing the story line up for the infographic. Determining the approach and graphs in a visualization tool was little complicated process as we need to align them in a single infographic. Adobe Photoshop made it easy to handle all other editing, text, fonts, title, vector graphics and alignment using different inbuilt features.