Team Assignment 1 – Questions

PART 1

Use the Bay Wheels’s trip data for August 2021.

Each trip is anonymized and includes:

* Start Time and Date
* End Time and Date
* Start Station ID
* Start Station Name
* Start Station Longitude
* Start Station Latitude
* End Station ID
* End Station Name
* End Station Latitude
* End Station Longitude
* Bike ID
* User Type (Subscriber or Customer – “Subscriber” = Member or “Customer” = Casual)

Questions

1. Create a histogram of ‘Tripduration’ using Tableau. Set the bin size to 120 seconds (2 minutes).
2. Generate a map that shows each starting station. For each station, it should also easily and intuitively show how many trips start at that station and how long the average duration of trip that starts at that station is.
3. Lyft is offering their bike sharing service in 3 subregions in San Francisco Bay area: San Francisco County, East Bay and South Bay. Display only the stations in San Francisco County on the map using the Group or the Set.
4. Compute the number of stations and the total number of trips starting at each subregion.
5. Compare the average Tripduration that starts on the San Francisco County, East Bay and South Bay areas; compute the average and standard deviation using Tableau.
6. Show a figure that shows where the trips that end at station ID Sf-J23-1 start, how long those trips usually take, and which station has the most?

PART 2

In this question, we will work on visualizing COVID-19 cases at Global level. The data include the following variables:

|  |  |
| --- | --- |
| continent | Continent of the geographical location |
| location | Geographical location |
| date | Date of observation |
| total\_cases | Total confirmed cases of COVID-19 |
| new\_cases | New confirmed cases of COVID-19 |
| new\_cases\_smoothed | New confirmed cases of COVID-19 (7-day smoothed) |
| total\_deaths | Total deaths attributed to COVID-19 |
| new\_deaths | New deaths attributed to COVID-19 |
| new\_deaths\_smoothed | New deaths attributed to COVID-19 (7-day smoothed) |
| total\_cases\_per\_million | Total confirmed cases of COVID-19 per 1 million people |
| new\_cases\_per\_million | New confirmed cases of COVID-19 per 1 million people |
| new\_cases\_smoothed\_per\_million | New confirmed cases of COVID-19 (7-day smoothed) per 1 million people |
| total\_deaths\_per\_million | Total deaths attributed to COVID-19 per 1 million people |
| new\_deaths\_per\_million | New deaths attributed to COVID-19 per 1 million people |
| new\_deaths\_smoothed\_per\_million | New deaths attributed to COVID-19 (7-day smoothed) per 1 million people |
| Reproduction\_rate | Real-time estimate |

Questions

1. Create a map to present the cumulative confirmed COVID-19 cases by country as of Jul 26, 2021.
2. Create a time series chart to present the cumulative confirmed COVID-19 cases by country between 2/24/2020 and 06/24/2021. You may want to present most representative 10 countries in your chart. Explain how you select the 10 countries.