Google Capstone Project

This Report contains all project details which I have used for performing cleaning, analyzing and visualizing data. In this case study, we work for a fictional company, Cyclistic, along with some key team members. In order to answer the business questions and follow the steps of the data analysis process.

**Company Background:**

In 2016, Cyclistic launched a successful bike-share offering. Since then, the program has grown to a fleet of 5,824 bicycles that are geotracked and locked into a network of 692 stations across Chicago. The bikes can be unlocked from one station and returned to any other station in the system anytime.

**Data:**

For dataset we are using company previous year [data](https://divvy-tripdata.s3.amazonaws.com/index.html). This is a pubic data that you can use to explore how different customer types are using Cyclistic bikes.

**Process:**

* First we are downloading the data of within a span of 1 year i.e from 2020 - 2021
* We are using R studio to collect these data and combine these data into a single data as these data are large in size it cannot be open in big query or spreadsheet
* Now we are preparing data for Tableau in R studio
* In R studio after combing data in a single data we are now creating a new column ride length by subtracting start time and end time
* Now we creating new columns for day of week, month, day, year, time and hour, we are going to split started date to these various column and format these column to certain data type.
* Now we will create a column for different seasons: Spring, Summer, Fall, Winter which we update using month column
* Similarly we will create columns for time of day which consists of Night, Moring, Afternoon, Evening which we update using hour column
* After Creating these columns we are going to clean the data for this dataset we will perform various cleaning process.
* After these cleaning phase we remove unnecessarily columns from the dataset
* After all these steps download the data in .csv format

**Analyze**

* After downloading the data in .csv format import the data in the tableau
* Preview the data in the data source and add sheets for each visualization
* Create first visualization for member type which shows different type of user.
* Create another visualization to show different types of rides, similarly create various visualization in each sheets.
* Now add these visualization to a dashboard and arrange these visualization properly in the dashboard
* Save the dashboard and upload it to your public account

**Share**

After creating dashboard create a presentation consisting of background of the company, Goals, Analysis and suggestion for the questions asked. The presentation should contain information based on which you have given the suggestion

Here is the github link - <https://github.com/RACHITSHRI/Projects>

Which contains all the details of this project. And link for data –

<https://divvy-tripdata.s3.amazonaws.com/index.html>