**Problem Statement:**

The company wants to know:

* Which variables are significant in predicting the demand for shared electric cycles in the Indian market?
* How well those variables describe the electric cycle demands

**Rest of the solution is in the notebook.**

**Insights**

* Whenever the humidity is less than 20, number of bikes rented is very low.
* Whenever the temperature is less than 10, number of bikes rented is less.
* Whenever the windspeed is greater than 35, number of bikes rented is less.
* Most vehicles are booked between 4-8 in the evening and booking goes down between 12-4 at night.
* Above pictures tells us that Count is linearly related to temp, atemp and inversely related to humidity & windspeed.
* Less number of people hire cycle when it is slow rain and more number of people hire when weather is clear.
* In summer and fall seasons more bikes are rented as compared to other seasons.
* Whenever its a holiday more bikes are rented.
* It is also clear from the analysis that whenever day is a holiday or a weekend, slightly more bikes were rented.
* Whenever there is rain, thunderstorm, snow or fog, less bikes were rented.
* Less Number of people take vehicle in spring

**Recommendations**

* In **summer** and **fall** seasons the company should have more bikes in stock to be rented. Because the demand in these seasons is higher as compared to other seasons.
* With a significance level of 0.05, **working day** has no effect on the number of bikes being rented.
* In very low **humid** days, company should have less bikes in the stock to be rented.
* Whenever temperature drops to less than 10 or in very cold days, company should have less bikes.
* Whenever the windspeed is greater than 35 or in thunderstorms, company should have less bikes in stock to be rented.
* Company can come up with some lucrative membership plan for casual users, riding the bike in fall season.
* We can arrange more vehicles during peak booking hours, and during night company can work with less number of vehicles, to reduce cost.

**Link:** https://colab.research.google.com/drive/1DNb8CTRIwmAqx6u2yjh7epxBWLzj3hOm