* + 1. **Problem Statement**

Autolib was a French electric car sharing service owned by the Bollore group in several French cities. Concentrating on weekdays the analysis will try to determine the following research question:

Are the number of Bluecars taken from postal code 75015 the same as those taken from postal code 75017 on weekdays?

To be able to answer the above question the following hypothesis will be used:

Null Hypothesis: The number of Bluecars taken from postal code 75015 is equal to the number taken from postal code 75017 during weekdays

Ho : μ of 75015 = μ of 75017

Alternate Hypothesis: The number of Bluecars taken from postal code 75015 is not equal to the number taken from postal code 75017 during weekdays

Ha : μ of 75015 ≠ μ of 75017

* + 1. **Data Description**

This data set provides the location for all the Autobil stations within Paris and several characteristics of each station including the number of bluecars, utilibs and utilibs 1.4 in each station, number of charging stations in them and the day and time of pick-up of the cars from the stations. The data contains 16085 entries with no null values.

The dataset used for the analysis was sourced from the following link <http://bit.ly/DSCoreAutolibDataset>

* + 1. **Hypothesis Testing Procedure**

The test statistic to be used is the t-statistic. The mean of two samples, count of bluecars from postal code 75015 and postal code 75017.

The significance level chosen is 0.01. Research allows a 1% error.

* + 1. **Hypothesis Testing Results**

The test of the results include.

T-test statistic- (1.0679)

P-Value – (0.3973).

The P-Value is greater than the level of significance. The null hypothesis can therefore not be rejected.

* + 1. **Discussion of Test Sensitivity**

The data was observed not to be normally distributed and therefore using the t-statistics might not be enough to investigate the claim of the null hypothesis.

* + 1. **Summary and Conclusions**

α = 0.01 and the p-value=0.3973, the data is therefore not sufficient to reject the null hypothesis. There might be a need to conduct a more detailed investigation to either accept or reject the null hypothesis.