**REPORT FOR STATION DATA ON ELECTRIC CAR SHARING COMPANY IN THE CITY OF PARIS**

**1.BUSINESS UNDERSTANDING:-**

* **Business overview-**

Autolib' was an electric car sharing service which was inaugurated in Paris, France, in December 2011.

As a data scientist at the company we have been tasked to process stations data to understand electric car usage over time by identifying the most popular hour of the day for picking up a shared electric car (Bluecar) in the city of Paris over the month of April 2018.

* **Business objective-**

The objective of this report is to draw insights from the 9 days dataset provided and identify the most popular hour of the day for picking up a shared electric car in the city of paris.

* **Business success criteria-**

To identify the most popular hour for picking up a shared electric car.

* **Assessing the situation-**

**a).Data set-**

The following data sample were used

**1.**[**http://bit.ly/autolib\_dataset**](http://bit.ly/autolib_dataset)

**2.https://drive.google.com/file/d/13DXF2CFWQLeYxxHFekng8HJnH\_jtbfpN/view**

**b).Software**

* python,google colab,github,Jira

c) **Assumption-**

* Data sample will be an accurate representation of the entire dataset

**c).Constraints**

* Only sample data for 9 days was available for analysis

d). **Data mining goals**

* identify the most popular hour of the day for picking shared electric car

e) **project plan-**

The cross industry standard data mining (crisp-DM) will be used as a guideline for this project.

Below is an overview of the plan

|  |  |  |  |
| --- | --- | --- | --- |
| PHASE | TIME | RESOURCE | RISK |
| Business understanding | 30 minute | Project dataset  Data analyst | Sample Data for 9 days provided |
| Data understanding | 1 hour | Project dataset  Data analysis tools |  |
| Data preparation | 2 hours | Project dataset  Data analysis tools-python,google collab,github |  |
| Data modelling | 1 hour | Project data set  Data analysis tools |  |
| Evaluation | 1 hour | Project dataset |  |

**2.DATA UNDERSTANDING:**-

* **Data understanding overview**.

The dataset given for this analysis was an electric car usage data collected for a period of 9 days

* **Data description.**

The data set given was sample data collected over a period of 9 days for shared electric car usage. It contains the time of the day ,number of cars and stations for the shared car.

1-[**http://bit.ly/autolib\_dataset**](http://bit.ly/autolib_dataset)

**2-https://drive.google.com/file/d/13DXF2CFWQLeYxxHFekng8HJnH\_jtbfpN/view**

**3.DATA PREPARATION-**

* LOADING DATA SET-

-The data set was loaded in to google collab editor

* CLEANING DATA-

-columns that were not useful were dropped from the data

4**.DATA ANALYSIS-**

After analysis using python ,the followed data was generated .

It shows popular hour for picking up electric car.

The most popular hour was 9 followed by 12

**hour**

**9 129.0**

**12 125.0**

**6 111.0**

**21 109.0**

**10 108.0**

**3 105.0**

**2 95.0**

**11 91.0**

**5 91.0**

**16 89.0**

**1 88.0**

**4 88.0**

**7 88.0**

**0 87.0**

**13 86.0**

**15 86.0**

**19 86.0**

**22 85.0**

**8 85.0**

**18 85.0**

**17 84.0**

**23 71.0**

**14 68.0**

**20 61.0**

**Name: difference, dtype: float64**

**T**he github repository link is : <https://github.com/nanighi/prep_week4_ip>