INTERNSHIP REPORT

**Submitted by: - Kaushik Gohain Bora**

**Roll no: - 170710007027**

**College: - Jorhat Engineering College**

Acknowledgement

I would like to thank ASTU and IIIT Guwahati for teaching the new concepts on ML and AI, different methods and techniques, also like to thank ECKOVATION for providing such a nice platform where we can test our skills and learn more. Thank you for giving me the opportunity to work on this project. During the project I have got to learn a lot of things and came to know different method

**Responsibilities:**

**Topic: Analyze Uber data in Python using Machine learning**

**Problem Statement:** Importing necessary libraries, import dataset from the given link, clean the data, perform exploratory data analysis, transform the data, find traveling time and calculate the average speed of the trip.

**Data Set Link:** https://www.kaggle.com/mohamed08/exploratory-data-analysis-for-uber-trips/data

**Solution:**

* **Libraries used:** 
  + **NumPy**
  + **Pandas**
  + **Matplotlib**
  + **Datetime**
* **Built-in-functions used:**
  + **List**
* **The Summary of what I have done:**
  + **Understanding the data**
  + **Removed unnecessary data**
  + **Fixed the datatypes of data column**
  + **Plot number of trips at each category**
  + **Extract month from start date**
  + **Extract time from start date**
  + **Calculated duration of each trip in minutes**
  + **Calculated trip speed for each driver**
  + **Removed invalid data**
  + **Plotted a histogram showing:**
    - trips for each category
      * *Highest: business*
    - average speed for each day of the week
    - total travelling time for each day of the week
    - trips per day of the week
    - average speed for each month
    - total travelling time for each month
    - number of trips for each month
      * *Highest: December*
    - average speed of the trips per hour of the day
    - number of trips for each hour of the day
    - number of trips made for each purpose
      * *Highest: Meeting*
    - average speed for each purpose

**Thank you!**