

# Data Poem Assignment Question

## 1 Introduction

This document contains 1 problems. You are expected to solve it and submit the assignment. The solution is expected to be submitted in a Jupyter notebook (.ipynb file). The notebook should contain both the code and your explanations and comments. Please keep the answers, approaches and explanations brief and up to the point. You are free to use whatever libraries and tools you want (as long as it's python). If you are using functionality that is specific to a particular version of a library or a particular version of python or if you are using some non-routine libraries, please mention that explicitly. While solving a problem, if you feel the need to make any other assumptions, you may do so freely, but please explicitly mention such assumptions that you make. You can write any helper functions and so on that you think will be useful.

Try to keep the cells of the Jupyter notebook arranged in the order in which they are to be executed. Also try to keep descriptive variable names that are easy to understand. If your name is ABC then you have to submit an assignment as ABC\_Jupyter\_notebook.ipynb..

**Note: Logic is important along with attempt, you should use proper logic and approach in order to arrive at the solution.**

## QUESTION

A time series-based regression dataset, that has 21 input features and 1 target variable. Each check point represents the number cycles that have been rented from that particular checkpoint on the corresponding date and target is the sum of number of cycles that have been rented on that particular date. In addition to that you are also provided with weather data of the particular city. Also all the check points are in a single city for which weather data is provided.

You need to analyse following mentioned points;

1. EDA on the data i.e. handling anomalous values, insights, etc.
2. Implement any of the deep learning based algorithms to achieve a good MAPE, and Error performance.
3. If required you can use auto hyper parameter tuning algorithms along with the deep learning algorithms.

Please find the link for the attached dataset below:

[weather.csv](#)

[Checkpoint\\_count.csv](#)