**Prediction of Bike Sharing Demand**

**Problem Statement**

A US bike-sharing provider Boom Bikes has recently suffered considerable dips in their revenues. They have contracted a consulting company to understand the factors on which the demand for these shared bikes depends. Specifically, they want to understand the factors affecting the demand for these shared bikes in the American market. The company wants to know:

• Which variables are significant in predicting the demand for shared bikes.

• How well those variables describe the bike demands

You are required to model the demand for shared bikes with the available independent variables. It will be used by the management to understand how exactly the demands vary with different features. They can accordingly manipulate the business strategy to meet the demand levels and meet the customer's expectations. Further, the model will be a good way for management to understand the demand dynamics of a new market.

**Steps for Model Building**

1.Reading and Understanding Data

2.Visualising the Data

3.Data Preparation

4.Splitting the Data into Training and Testing Sets

5.Feature Scaling

6.Building the Model

7.Residual Analysis of the train data

8.Making predictions using final model

9.Model Evaluation