**Luggage Bags Cost Prediction**

 The dataset attached contains the data of 160 different bags associated with ABC industries. The bags have certain attributes which are described below:

1. Height – The height of the bag
2. Width – The width of the bag
3. Length – The length of the bag
4. Weight – The weight the bag can carry
5. Weight1 – Weight the bag can carry after expansion

 The company now wants to predict the cost they should set for a new variant of these kinds of bags based on the attributes below. As a result, they want you to build a prediction model which can correctly set the cost of the bag provided the attributes are given. The task involves the following things:

* Analyse the dataset and do EDA (Exploratory Data Analysis) – 6 Marks
* Plotting of various graphs & correlations – 2 Marks
* Model Building using Multiple Linear Regression – 12 Marks

(OLS Approach – 3 Marks, Gradient Descent – 3 Marks,, Mini Batch Gradient – 3 Marks, Stochastic Gradient – 3 Marks)

* Evaluation of each model with R squared, RMSE and MSE for the model - 2 Marks
* Observations / Conclusions – 2 Marks