Roller coaster riding is an extremely popular entertainment among the youngsters. However, the ranking systems of roller coasters are large based on the input of subjective experience and rating instead of quantitative analysis. Therefore, the aim of the model we construct is to provide a reliable model used for the roller coaster-rating based on their properties and objective analysis.

To begin with, we do the data cleaning and interpolation to extract the relevant data. Noisy data are being rectified and some missing data are interpolated. The process simplifies our model by reducing the independent variables and raising the accuracy. We obtained 9 properties of the roller coasters for further analysis. Next, we analysis the data mainly by applying Principal Component Analysis to determine a initial ranking of roller coasters and compare it with the ranking online to see if the result can be taken as training set in the methods that follows.

A model is then constructed with the help of Linear Regression and KNN algorithm