Dimension reduction is a technique- that reduces the number of input variables in dataset. large number of input features can cause poor performance for machine learning algorithms.

This technique is generally used for data visualisation.these techniques are used in classification and regression model which can better fit the predictive model.High dimensionality means data in thousands,millions of input variable.in dimension reduct researchers main focus is on on to reduce unnecessary data and show that only which is most relevant according to user’s perception.matrix factorization ,manifold learning are some techniques for dimension reduction.