

Lab-experiment-8

Implementing the Logistic regression

Aim :- To implement the logistic regression on the fruits dataset.

Problem Statement :- Given the dataset of fruits, we need to do logistic regression on the given dataset and ~~per~~ determine the Accuracy of the train and test dataset.

Algorithm /

About Logistic Regression

Logistic Regression is a Machine Learning classification algorithm that is used to predict the probability of a categorical dependent variable. In logistic regression, the

dependent variable is a binary variable that contains data coded as 1 (yes, success, etc.) or 0 (no, failure, etc.). In other words, the logistic regression model predicts $P(Y=1)$ as a function of x .

Observation:-

- 1) Binary Logistic regression technique requires the dependent variable to be binary.
- 2) For a binary regression, the factor level 1 of the dependent variable should represent the desired outcome.
- 3) Only the meaningful variables should be included.
- 4) The model should have little or no multicollinearity.
- 5) Logistic regression requires quite large sample sizes.