CLASS 11 04-06-2021

**QUESTIONS**

👉 What is Classification?  
👉 What is Regression?  
👉 What is the difference between logistic regression and linear regression?  
👉 What is Confusion Matrix in Machine Learning?  
👉 Which is a binary problem in logistic regression?

**ANSWERS**

1. In machine learning, **classification** refers to a predictive modeling problem where a class label is predicted for a given example of input data. Examples of classification problems include: classify if mail is spam or not.

2. **Regression** models are used to predict a continuous value. Predicting prices of a house given the features of house like size, price etc is one of the common examples of Regression. It is a supervised technique.

3. **Linear regression** is used for predicting the continuous dependent variable using a given set of independent features whereas **Logistic Regression** is used to predict the categorical. Linear regression is used to solve regression problems whereas logistic regression is used to solve classification problems.

4. A **Confusion matrix** is an N x N matrix used for evaluating the performance of a classification model, where N is the number of target classes. The matrix compares the actual target values with those predicted by the machine learning model.

5. **Binary logistic regression** is a type of regression analysis that is used to estimate the relationship between a dichotomous dependent variable and dichotomous-, interval-, and ratio-level independent variables. These types of variables are often referred to as discrete or qualitative.