Logistic Classification

1. What is Logistic Classification?

 Logistic classification, often referred to as logistic regression, is a statistical method used for binary classification problems. It predicts the probability that a given input belongs to a particular category, typically using a logistic function to model the probability.

2. How does Logistic Classification differ from Linear Regression?

While linear regression is used for predicting continuous outcomes, logistic classification is used for binary outcomes. Logistic classification uses the logistic (sigmoid) function to map predicted values to probabilities between 0 and 1, whereas linear regression uses a linear function to predict continuous values.

3. What is the difference between logistic regression and logistic classification?

Logistic Regression

Purpose: Logistic regression is a statistical method used for binary classification problems. It models the probability that a given input belongs to a particular category.

Output: The output is a probability value between 0 and 1, which is then mapped to two classes (**e.g.,** 0 or 1) using a threshold value.

Function: It uses the logistic (sigmoid) function to model the probability

Logistic Classification

Terminology: Logistic classification is another term for logistic regression, especially in the context of machine learning. It emphasizes the classification aspect of the model.

 Output: Similar to logistic regression, it outputs a probability value between 0 and 1, which is used to classify the input into one of two categories.

Function: Uses the same logistic (sigmoid) function as logistic regression.

4. How do you evaluate the performance of a logistic classification model?

Confusion Matrix

A confusion matrix is a table that is used to describe the performance of a classification model. It shows the true positives (TP), true negatives (TN), false positives (FP), and false negatives (FN)

Accuracy

Precision

Recall

F1 Score

5. How to import logistic classification

From sk learn .linear_ model import logistic classification