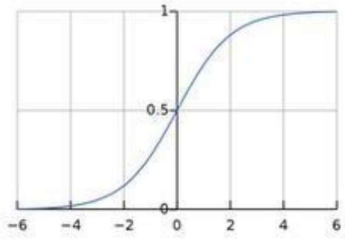
Experiment 6: Write a Python program to implement Logistic Regression and plot the graphs.

Theory:

1. Logistic Regression

It's a classification algorithm that is used where the target variable is of categorical nature. The main objective behind Logistic Regression is to determine the relationship between features and the probability of a particular outcome.



Logistic regression - Logit function

Implementation:

1. sklearn.linear_model.LogisticRegression

Syntax:

class sklearn.linear_model.**LogisticRegression**(*multi_class='auto'*)

Creates Logistic Regression (aka logit, MaxEnt) classifier. In the multiclass case, the training algorithm uses the one-vs-rest (OvR) scheme

About Dataset:

(Describe your dataset)

Conclusion: In this way, we understood the working of the logistic regression algorithm for classification task. We also plotted the sigmoid function using the probabilities.