Problem Definition:

The task is to create a Naive Bayes text classification model entirely from scratch and apply it to a dataset for the purpose of classifying data points into predefined categories.

Theory:

Naive Bayes Algorithm:

Naive Bayes is a classification algorithm based on Bayes' theorem. It is called "naive" because it makes the simplifying assumption that the features used for classification are conditionally independent given the class label, which is not always true but often works well in practice.