NNFS - Exp. No-3: Bayes Classification

(Posted on <10 November, 2022>, Submission Deadline <18 November, 2022>)

Problem Statement-

We have learned the concept of Bayes Classifier. Naive Bayes classifier calculates the probabilities for every factor. Then it selects the outcome with highest probability.
This classifier assumes the features (in this case we had words as input) are independent. Hence the word naive. Even with this it is a powerful algorithm used for Real time Prediction, Text classification/ Spam Filtering & Recommendation System. To further understand and explore this area, we play around with the codes available at-

https://medium.com/machine-learning-101/chapter-1-supervised-learning-and-naive-bayes-classification-part-1-theory-8b9e361897d5
https://medium.com/machine-learning-101/chapter-1-supervised-learning-and-naive-bayes-classification-part-2-coding-5966f25f1475

Rubric for Grading Submission

You need to submit your report for evaluation on a scale of 10. The report shall consist of your understanding of the problem, code, results, novelty (if any) and conclusions. Following rubric shall be used for grading your submission-

Marks	Criteria	Exhibits
0	No submission within deadline	-
1-5	Used code in the link as it is without any changes. No novelty. Marks based on the presentation and time of submission.	Successfully installed and executed the code
5-6	Minor changes in the code, time of submission	Demonstrate need and effect of changes
7-8	Major changes in the code, time of submission	Demonstrate need and effect of changes
9-10	Your own creativity & novelty	Demonstration of novelty

Note-

You may also explore other resources and cases (like Text Classification, Recommendation System, etc) to demonstrate key concepts which will illustrate your understanding of the topic on “Bayes Classifier”.