1. What assumptions are made about the attributes in Naïve Bayes method of classification and why? What is Laplacian correction and why it is necessary?

Use Naïve Bayes algorithm from scratch for the following questions.

2.Take the iris data. Use Naïve Bayes algorithm to find the species with the following two observations.

[4.5 3.0 5.6 2.1; 5.4 2.6 4.5 0.0]

Show various steps involved and do as explained in the class.

3. Consider the data of play tennis or not. Predict the output for the following cases.

1. Outlook: Sunny, Temp: Hot, Humidity: High, Wind = Strong

2. Outlook = Overcast, Temp = Mild, humidity = High, Wind = Strong

Verify your answer with sklearn