Naïve bayes-1

Assignment Questions

PW SKILLS

Q1. What is Bayes' theorem?

Q2. What is the formula for Bayes' theorem?

Q3. How is Bayes' theorem used in practice?

Q4. What is the relationship between Bayes' theorem and conditional probability?

Q5. How do you choose which type of Naive Bayes classifier to use for any given problem?

Q6. Assignment:

You have a dataset with two features, X1 and X2, and two possible classes, A and B. You want to use Naive Bayes to classify a new instance with features X1 = 3 and X2 = 4. The following table shows the frequency of each feature value for each class:

Class	X1=1	X1=2	X1=3	X2=1	X2=2	X2=3	X2=4
A	3	3	4	4	3	3	3
B	2	2	1	2	2	2	3

Assuming equal prior probabilities for each class, which class would Naive Bayes predict the new instance to belong to?

Note: *Create your assignment in Jupyter notebook and upload it to GitHub & share that github repository link through your dashboard. Make sure the repository is public.*