Mini-Assignment: Supervised learning- Naive Bayes & Logistic Regression

Due Feb 7 at 11:59pm **Points** 4 **Questions** 4
Available until Feb 8 at 3am **Time Limit** None
Allowed Attempts 2

Instructions

Unit 3: Supervised learning- Naive Bayes & Logistic Regression

This quiz was locked Feb 8 at 3am.

Attempt History

	Attempt	Time	Score
LATEST	Attempt 1	2 minutes	4 out of 4

Score for this attempt: **4** out of 4
Submitted Feb 5 at 10:26am
This attempt took 2 minutes.

Question 1

1 / 1 pts

Let $A_1, A_2, ..., A_n$ be mutually exclusive events that exhaust the probability space Y. Which of the following conditions is true?

- $\sum_{i=0}^{n} P(Y|A_i) = 1$
- Correct! $\sum_{i=0}^{n} P(A_i|Y) = 1$
- $\sum_{i=0}^{n} \sum_{j=0}^{n} P(A_i \cap A_j) = 1$

Question 2

1 / 1 pts

How can logistic regression be used as a classifier?

- Logistic regression can be used as a classifier by expanding the range of the output of the logistic function.
- Logistic regression can be used as a classifier by limiting the domain of the logistic function to positive real numbers only.

Correct!

- Logistic regression can be used as a classifier by using a threshold on the outcome of the logistic function and using this threshold to classify the inputs.
- Logistic regression can be used as a classifier by removing the nonlinear relationship between input and output.

Question 3

1 / 1 pts

In Logistic Regression, the parameter η is called the learning rate. What does this parameter control?

- The size of the final w_0.
- How quickly new features are incorporated into the model.
- The speed of convergence of the model.

Correct!

- The speed at which changes happen to the w parameters.

Question 4

1 / 1 pts

Which of the following plots shows the relationship between the error rates of logistic regression and Naive Bayes when the data size gets larger?

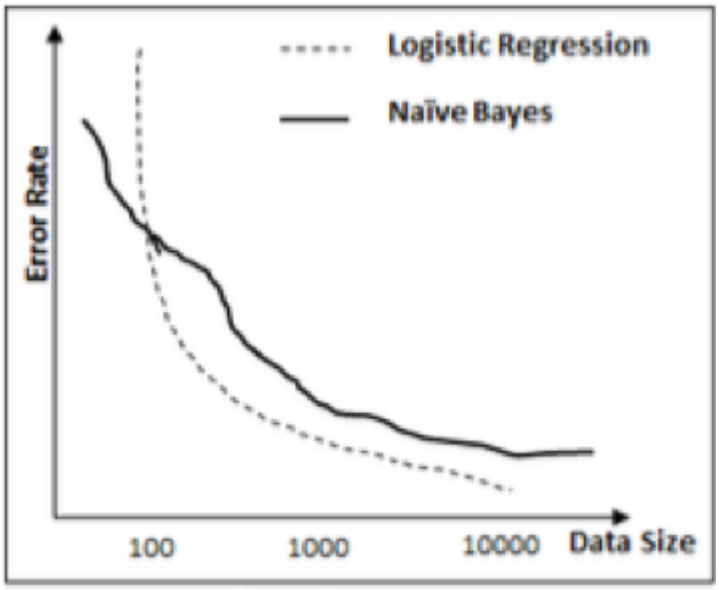

Figure 1

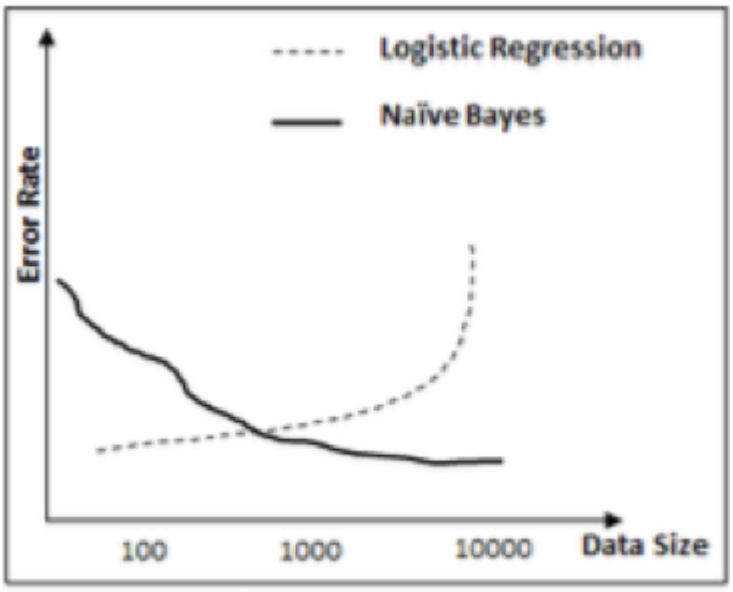

Figure 2

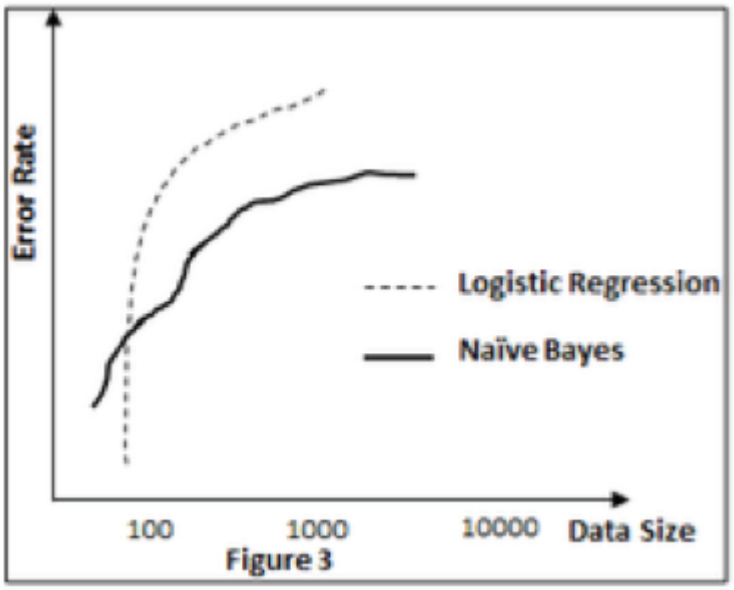

Figure 3

- Figure 3
- Figure 2
- Figure 1

Correct!

Quiz Score: **4** out of 4