

Assignment 4

	Submit as a pdf document and Use Matlab/Octave to code				
1	What is a Bayesian Classifier?				
2	Why we use a Naive Bayes Classifier? Why it is called Naive?				
3	What are the possible advantages in choosing Naive Bayes Classifier?				
4	Prepare a classification model using Naive Bayes for the given data.				
	No.	Swim	Fly	Crawl	Class Label
	1	Fast	No	No	Fish
	2	Fast	No	Yes	Animal
	3	Slow	No	No	Animal
	4	Fast	No	No	Animal
	5	No	Short	No	Bird
	6	No	Short	No	Bird
	7	No	Rarely	No	Animal
	8	Slow	No	Yes	Animal
	9	Slow	No	No	Fish
	10	Slow	No	Yes	Fish
	11	No	Long	No	Bird
	12	Fast	No	No	Bird
5	Consider class Fish as Y1, class Animal as Y2, and class Bird as Y3 Compute P(Y1), P(Y2), P(Y3).				
6	Consider the test sample X=(Slow, Rarely, No). Predict the class label for the test sample, using the Naive Bayes classifier. (Hint: Find P(Y1/X), P(Y2/X), and P(Y3/X)).				