

Lab 6

Problem 1. Note: Show how you arrived at your solutions -- show all work.

Consider the following dataset:

A1	A2	A3	Class
Medium	Mild	East	No
Low	Mild	East	Yes
High	Mild	East	Yes
Low	Mild	West	Yes
Low	Cool	East	No
Medium	Hot	West	No
High	Hot	East	Yes
Low	Cool	West	No
Medium	Hot	East	No
High	Cool	East	Yes
Medium	Mild	East	No
Low	Cool	West	Yes
Medium	Hot	West	Yes
Low	Hot	East	Yes

Suppose we have a new tuple $X = (A1 = \text{Medium}, A2 = \text{Cool}, A3 = \text{East})$. Predict the class label of X using Naïve Bayes classification. Compute this problem by hand.

Problem 2. The goal of this problem is to get you familiar with how to use Weka Naïve Bayes classifier. First, you need to install Weka in your machine. Then locate the following dataset in your Weka installation directory.

C:\Program Files\Weka-3.8\data\breast-cancer.arff

Your task of this problem is to run a Naïve Bayes model using the dataset. Follow the instructions in the link below:

<https://www.youtube.com/watch?v=ba65MDw8Xok>

Use the default test option, which is Cross-validation (More on this later). Capture the classifier output and paste it onto your submission. Make sure your screenshot has accuracy and confusion matrix included.