

Exercises Naive Bayes

1 Naive Bayes

Given is the following data set with four features and one target (*Class*).

A	B	C	D	Class
0	0	10	1	1
0	0	11	0	1
0	1	9	1	0
0	1	8	0	1
0	1	4	0	0
1	0	5	1	1
1	0	12	1	1
1	0	15	0	1
1	1	8	1	0
1	1	7	0	0
1	1	8	1	1
1	1	4	1	0

1. Compute the conditional probabilities $P(X \mid \text{Class})$ where $X \in \{A, B, C, D\}$. Use a normal distribution for C .
2. Classify the instance using Naive Bayes $(1, 1, 5, 0)$.