How to read and interpret confusion matrix:

		Prediction		
		Buy (+)	Not Buy (-)	Total
True state of nature	Buy	a	b	a+b
	Not Buy	c	d	c+d
	Total	a+c	b+d	a+b+c+d

$$Misclassification\ error = \frac{b + c}{a + b + c + d} \times 100\%$$

$$Percentage\ of\ correctly\ classified\ customers$$
$$= \frac{a + d}{a + b + c + d} \times 100\%$$

$$Sensitivity = \frac{a}{a + b} \times 100\%$$

$$Specifity = \frac{d}{c + d} \times 100\%$$

$$False\ positive = \frac{c}{c + d} \times 100\%$$

$$True\ positive = \frac{a}{a + b} \times 100\%$$

$$False\ negative = \frac{b}{a + b} \times 100\%$$

$$True\ negative = \frac{d}{c + d} \times 100\%$$