



# Training naïve Bayes

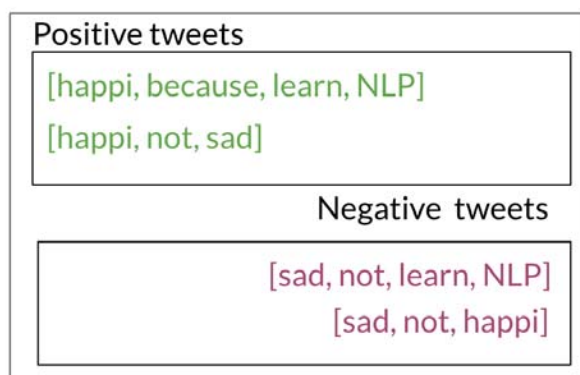
To train your naïve Bayes classifier, you have to perform the following steps:

## 1) Get or annotate a dataset with positive and negative tweets

## 2) Preprocess the tweets: `process_tweet(tweet) → [w1, w2, w3, ...]`:

- Lowercase
- Remove punctuation, urls, names
- Remove stop words
- Stemming
- Tokenize sentences

## 3) Compute $\text{freq}(w, \text{class})$ :



Step 2:  
Word  
count

word	Pos	Neg
happi	2	1
because	1	0
learn	1	1
NLP	1	1
sad	1	2
not	1	2
$N_{\text{class}}$	7	7
$\text{freq}(w, \text{class})$		

## 4) Get $P(w|pos)$ , $P(w|neg)$

You can use the table above to compute the probabilities.