Naive Bayes Algorithm (allows the machine to take decisions on its own, e.g. Types of books (different people recommended it)  
It considers features as independent  
  
Generative 🡪 Naïve Bayes

Read Laplace Transformation for the basic classes.

Naïve Bayes Algorithm 🡪 Follows Bayes Theorem (Creates a different model each class)  
P(Class|Feature)=[P(Feature|Class)\*P(Class)]/(P(Features))  
P(A|B)=((B|A)\*P(A))/P(B)  
A=”Spam Email”  
B=”Free”



Classification of Models  
Generative Models  
Discriminative Models  
  
To correct, the distinguishing characters between two models (crosses and circle) and then when we check for square, we give it a probability of 0.  
So, we use Laplace Smoothing. It adds a probability of 1 for those which has something wrong (has probability 0).



We are adding 1, when we encounter 0, so that we can regularize our curve



Generative Advisory Neural Network (Read from Google)

Types of Naïve Bayes  
Gaussian Naïve Bayes 🡪 One type of data is coming in continuously. Eg age, temperature, etc  
Multinomial Naïve Bayes 🡪eg to see the word count  
Bernoulli Naïve Bayes 🡪 presence, absence or true, false or 0 or 1

It puts (or assigns) the free to a particular value and then checks whether that particular value is coming again or not

Accuracy🡪Overall Correctness of the mode🡪

Recalls(False Negative)🡪Correct positive over actual positive🡪  
Precision(False Positive)🡪Correct Positive over total positive🡪  
F1 Score 🡪

Naïve Bayes  
Text Classification, large Dataset, real time prediction

The machine is learning when and where the spams are coming and then again classifying on the basis of tha