Consider the following training dataset that classifies twenty different creatures based on four attributes; *Give birth (GB), Can Fly (CF), Live in Water (Lin), Have Legs (HL)* into two classes; *Mammals (M), Non-Mammals (N).*

Name	Give Birth (GB)	Can Fly (CF)	Live in Water (Lin)	Have Legs (HL)	Class
Human	Yes	No	No	Yes	M
Python	No	No	No	No	N
Salmon	No	No	Yes	No	N
Whale	Yes	No	Yes	No	M
Frog	No	No	Sometimes	Yes	N
Komodo	No	No	No	Yes	N
Bat	Yes	Yes	No	Yes	M
Pigeon	No	Yes	No	Yes	N
Cat	Yes	No	No	Yes	M
Leopard Shark	Yes	No	Yes	No	N
Turtle	No	No	Sometimes	Yes	N
Penguin	No	No	Sometimes	Yes	N
Porcupine	Yes	No	No	Yes	M
Eel	No	No	Yes	No	N
Salamander	No	No	Sometimes	Yes	N
Gila Monster	No	No	No	Yes	N
Platypus	No	No	No	Yes	M
Owl	No	Yes	No	Yes	N
Dolphin	Yes	No	Yes	No	M
Eagle	No	Yes	No	Yes	N

1. Train a Naïve Bays classifier using the above dataset by finding the following probabilities

P(M)=	P(N)=
P(GB=Yes|M)=	P(GB=Yes|N)=
P(CF=No|M)=	P(CF=No|N)=
P(Lin=Yes|M)=	P(Lin=Yes|N)=
P(HL=No|M)=	P(HL=No|N)=

2. Classify using your trained Naïve bayes classifier the following case

Name	**Give Birth (GB)**	**Can Fly (CF)**	**Live in Water (Lin)**	**Have Legs (HL)**	**Class**
	Yes	No	Yes	No	?