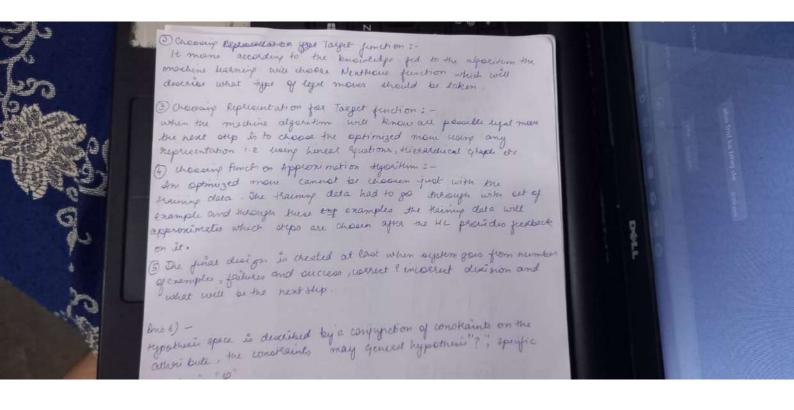


r(x, 14,) * P(4,) + P(x, 140) P(40) 0.75 × 0,05 (0.75 x0.05) + (0.30x0,95) P(Y,1X1) = 0.1162 P(Y0 | X1) = 1-P(Y1 | X1) = 0.8838 Since P(Yolx,) > P(Y, 1x,) Team o has a better probability of wining next match than Team 1 Dus5) Machine hearning, a branch of artificial intelligence, concerns the construction and study by systems that can learn from data. It is to develop methods that can automatically detect patterns in data and then to use the uncertesed patterns to predict future data OR other outcomes of interests. Reps for designing hearning Eystems are:-1 Choosing the training Experience: The very important and first took is to choose the training data of training experience which will be fed to the Machine hearning Algorithm.



what well be the next step Ans 5) rypothesis space is described by a conjugaction of constaints on the atheribute, the constraints may general hypothesis? ; specific hypothesis " " Instance apace is a subset of all possible enample of instance Version space is the subset of hypothesis from the consistentwith Kaining enample in D. Stolen ans 8) -Type Deyn water VED Red Domestic Sports NO Red Domestic sports 420 Red Comustic NO sports Yellow ديد إ bonestic sports No Yellow Imported Yes sports Yellow Imported NO SUV Yellow Imported Yes SUV Y ellow bomestic No SUU Imparted Red No sports. imported Yes Red

(tolow Red, Yellow) (Type | Sports, SUV? (Organ | Domestic, Imported)

	Taget		
U 1	cotos	400	No
Volues	R	3	2
	141	2	10

$$P(\text{Red}|\text{stolen}) = \frac{3}{5} = 0.6$$

$$P(\text{Red}|\text{r stolen}) = \frac{2}{5} = 0.4$$

$$P(\text{Yellow}|\text{stolen}) = \frac{2}{5} = 0.4$$

$$P(\text{Yellow}|\text{r stolen}) = \frac{3}{5} = 0.6$$

Type	Yex	No	1
spetts COV	4	3	

Yes	No
2	3
1 2	7
	Yes 2

classify the new data = (Rid, SUV, Domestic)

for Holen : Yes:

PLYWXPLRIYW) * PLSUVIYW) * PCD/700)

= 0.6 * 0.2 * 0.4 * 0.5 = 0.024

for stolen = No:

= P(NO) * P(RINO) * P(SUVINO) * P(DINO)

= 0, 4x 0.6x0.6x05 = 0.07 2.

Therefore we would classify the data as not stolen