Example :-

	X_1	X_2	
Person	Covid (Yes/No)	Flu (Yes/No)	Fever (Yes/No)
1	Yes	NO	Yes
2	NO	Yes	Yes
3	Yes	Yes	Yes
4	NO	NO	NO
5	Yes	NO	Yes
6	NO	NO	Yes
7	Yes	NO	Yes
8	NO	NO	NO
9	Yes	NO	Yes

Given Person (flu, covid)

Prob of Yes : $P(Y/X) = \frac{P(X/Y) * P(Y)}{P(X)}$

Prob of NO : $P(N/X) = P(X/N) * P(N)$

Prob Yes : $P(\text{Yes}/\text{Covid}, \text{flue}) = P(\text{flu}/\text{Yes}) * P(\text{Covid}/\text{Yes}) * P(\text{Yes})$

Prob NO : $P(\text{NO}/\text{Covid}, \text{flu}) = P(\text{flu}/\text{NO}) * P(\text{Covid}/\text{NO}) *$

Step 1: Prior Probability.

$P(\text{Fever} = \text{Yes}) = 7/9$

$P(\text{Fever} = \text{NO}) = 2/9$

Step 2 : Conditional Prob

	Yes	NO
Covid	5/9	2/9
FLU	2/9	2/9

$\Rightarrow$ Prob of Yes $= P\left(\frac{5}{9} \times \frac{2}{9}\right) * \left(\frac{7}{9}\right)$

$= \frac{70}{9}$

$= 0.17$

$\Rightarrow$ Prob of NO $= \left(\frac{2}{9} \times \frac{2}{9}\right) * \frac{2}{9}$

$= \frac{8}{9} = 0.13$

Sol:- Prob of Yes :- 0.17 big

Prob of NO :- 0.13

Yes