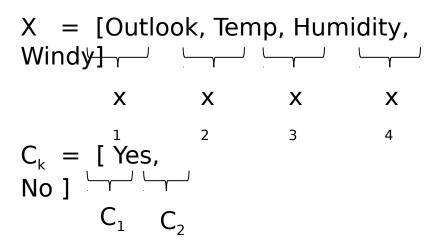


Outlook	Temp	Humidity	Windy	Play
sunny	hot	high	FALSE	no
sunny	hot	high	TRUE	no
overcast	hot	high	FALSE	yes
rainy	mild	high	FALSE	yes
rainy	cool	normal	FALSE	yes
rainy	cool	normal	TRUE	no
overcast	cool	normal	TRUE	yes
sunny	mild	high	FALSE	no
sunny	cool	normal	FALSE	yes
rainy	mild	normal	FALSE	yes
sunny	mild	normal	TRUE	yes
overcast	mild	high	TRUE	yes
overcast	hot	normal	FALSE	yes
rainy	mild	high	TRUE	no



Outlook	Temp	Humidity	Windy	Play
sunny	hot	high	FALSE	no
sunny	hot	high	TRUE	no
overcast	hot	high	FALSE	yes
rainy	mild	high	FALSE	yes
rainy	cool	normal	FALSE	yes
rainy	cool	normal	TRUE	no
overcast	cool	normal	TRUE	yes
sunny	mild	high	FALSE	no
sunny	cool	normal	FALSE	yes
rainy	mild	normal	FALSE	yes
sunny	mild	normal	TRUE	yes
overcast	mild	high	TRUE	yes
overcast	hot	normal	FALSE	yes
rainy	mild	high	TRUE	no





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rainy	cool	normal	FALSE	yes
rainy	cool	normal	TRUE	no
overcast	cool	normal	TRUE	yes
sunny	mild	high	FALSE	no
sunny	cool	normal	FALSE	yes
rainy	mild	normal	FALSE	yes
sunny	mild	normal	TRUE	yes
overcast	mild	high	TRUE	yes
overcast	hot	normal	FALSE	yes
rainy	mild	high	TRUE	no



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rainy	cool	normal	TRUE	no
overcast	cool	normal	TRUE	yes
sunny	mild	high	FALSE	no
sunny	cool	normal	FALSE	yes
rainy	mild	normal	FALSE	yes
sunny	mild	normal	TRUE	yes
overcast	mild	high	TRUE	yes
overcast	hot	normal	FALSE	yes
rainy	mild	high	TRUE	no



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rainy	cool	normal	TRUE	no
overcast	cool	normal	TRUE	yes
sunny	mild	high	FALSE	no
sunny	cool	normal	FALSE	yes
rainy	mild	normal	FALSE	yes
sunny	mild	normal	TRUE	yes
overcast	mild	high	TRUE	yes
overcast	hot	normal	FALSE	yes
rainy	mild	high	TRUE	no

$$P(E_{1} | E_{2}) = \frac{P(E_{2} | E_{1}) *}{P(E_{1})}$$

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sunny	hot	high	FALSE	no
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rainy	cool	normal	TRUE	no
overcast	cool	normal	TRUE	yes
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sunny	cool	normal	FALSE	yes
rainy	mild	normal	FALSE	yes
sunny	mild	normal	TRUE	yes
overcast	mild	high	TRUE	yes
overcast	hot	normal	FALSE	yes
rainy	mild	high	TRUE	no

$$P(E_{1} | E_{2}) = P(E_{1} | E_{1}) *$$

$$P(E_{1} | E_{2}) = P(E_{1}) *$$

$$P(E_{2} | E_{1}) *$$

$$P(E_{2} | E_{2})$$

$$P(X | E_{2})$$

$$P(X | E_{2})$$

$$P(X | E_{2})$$

$$P(X | E_{2})$$



$$P(C_{k} \mid X) = \frac{P(X \mid C_{k}) * P(C_{k})}{P(X)}$$



$$P(C_{k} | X) = \frac{P(X | C_{k}) * P(C_{k})}{C_{k}) * P(C_{k})}$$

$$P(C_{1} | X_{1} \cap X_{2} \cap X_{3} \cap X_{4}) = \frac{P(X_{1} \cap R_{4}) * P(C_{1})}{P(C_{1})}$$

$$P(X_{1} \cap X_{2} \cap X_{3} \cap X_{4}) = P(X_{1} \cap X_{2} \cap X_{3} \cap X_{4})$$



$$P(C_{k} | X) = \frac{P(X | C_{k}) * P(C_{k})}{C_{k}) * P(C_{k})}$$

$$= P(C_{1} | X_{1} \cap X_{2} \cap X_{3} \cap X_{4}) = \frac{P(X_{1} \cap R_{2}(X) \times_{3} \cap X_{4} | C_{1}) *}{P(C_{1})}$$

$$P(C_{1} | X_{1} \cap X_{2} \cap X_{3} \cap X_{4})$$

$$P(C_{1} | X_{1} \cap X_{2} \cap X_{3} \cap X_{4})$$

$$P(X_{1} | C_{1}) * P(X_{2} | C_{1}) * P(X_{3} | C_{1}) * P(X_{4} | C_{1}) * P(C_{1})$$

$$P(X_{1}) * P(X_{2}) * P(X_{3}) * P(X_{4})$$



$$P(C_{1} | X_{1} \cap X_{2} \cap X_{3} \cap X_{4}) = \frac{P(X_{1} | C_{1}) * P(X_{2} | C_{1}) * P(X_{3} | C_{1}) * P(X_{4} | C_{1}) * P(C_{1})}{P(X_{1}) * P(X_{2}) * P(X_{3}) * P(X_{4})}$$

```
P(sunny|\ yes)\ *P(hot|\ yes)*\ P(high|\ yes)*\ P(windy|\ yes)* P(yes|\ P(yes)\ P(
```

P(sunny)* P(hot)* P(high)* P(windy)

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