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$$P(C_i) = P(\text{buy} = \text{'yes'}) = 9/14 = 0.643$$

$$= P(\text{buy} = \text{'no'}) = 5/14 = 0.357$$

$$P(\text{age} = \text{'31-40'} | \text{buy-com} = \text{'yes'}) = 2/9 = 0.222$$

$$P(\text{age} = \text{'31-40'} | \text{buy-com} = \text{'no'}) = 0/5 \rightarrow 1/6 = 0.16$$

$$P(\text{income} = \text{'high'} | \text{buy-com} = \text{'yes'}) = 2/9 = 0.222$$

$$P(\text{income} = \text{'high'} | \text{buy-com} = \text{'No'}) = 2/5 = 0.4$$

$$P(\text{student} = \text{'yes'} | \text{buy-com} = \text{'yes'}) = 6/9 = 0.6$$

$$P(\text{student} = \text{'yes'} | \text{buy-com} = \text{'No'}) = 2/5 = 0.4$$

$$P(\text{credit-rating} = \text{'fair'} | \text{buy-com} = \text{'yes'}) = 6/9 = 0.666$$

$$P(\text{credit-rating} = \text{'fair'} | \text{buy-com} = \text{'No'}) = 2/5 = 0.4$$

$$P(X|C_i) : P(X | \text{buys-com} = \text{'yes'}) = 0.222 \cdot 0.333 \cdot 0.666 \cdot 0.666 = 0.026$$

$$P(X | \text{buys-com} = \text{'No'}) = 0.16 \cdot 0.14 \cdot 0.8 \cdot 0.4 = 0.20$$

$$P(X|C_i) \cdot P(C_i) : P(X | \text{buys-com} = \text{'yes'}) \times P(\text{buys-com} = \text{'yes'}) = 0.181$$

$$P(X | \text{buys-com} = \text{'no'}) + P(\text{buys-com} = \text{'no'}) = 0.009$$

therefore x belongs to class $\text{buy-com} = \text{'yes'}$