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Size	Color	Shape	Class/Label
Big	Red	Circle	No
Small	Red	Triangle	No
Small	Red	Circle	Yes
Big	Blue	Circle	No
Small	Blue	Circle	Yes

Candidate Elimination :-

Initialize most specific S_0 & general G_0 hypothesis

$S_0 := \langle \phi, \phi, \phi \rangle$

$G_0 := \langle ?, ?, ? \rangle$

Iteration 1 :- As this example is negative so we will do nothing with S_0 and check G_0 whether it is consistent or not.

$S_1 := \langle \phi, \phi, \phi \rangle$

$G_1 := \langle \text{Small}, ?, ? \rangle$

$\langle ?, \text{Blue}, ? \rangle$

$\langle ?, ?, \text{Triangle} \rangle$

Iteration 2 :- Again this example is negative so S_1 remains same and we will check G_1 whether it is consistent or not.

$S_2 := \langle \phi, \phi, \phi \rangle$

$G_2 := \langle \text{Small}, \text{Blue}, ? \rangle$

$\langle \text{Small}, ?, \text{Circle} \rangle, \langle ?, \text{Blue}, ? \rangle$

$\langle \text{Big}, ?, \text{Triangle} \rangle, \langle ?, \text{Blue}, \text{Triangle} \rangle$

Iteration 3 & Now this example is positive, so we will compare each attribute of our third example with S_2 & G_2 and check consistency.

$S_2: \langle \text{Small, Red, Circle} \rangle$ $G_2: \langle \text{Small, ?, Circle} \rangle$

Iteration 4: Again we got a negative example, thus S_2 will remain same and we will check whether G_2 is consistent or not.

$S_4: \langle \text{Small, Red, Circle} \rangle$, $G_4: \langle \text{Small, ?, Circle} \rangle$

Iteration 5: Now, we got a positive example, so we will compare each attribute of our ~~four~~ fifth example with S_4 & G_4 and check consistency.

$S_5: \langle \text{Small, ?, Circle} \rangle$, $G_5: \langle \text{Small, ?, Circle} \rangle$

It is clearly seen that final hypothesis of specific and general hypothesis are equal

$$S_f = G_f = \langle \text{Small, ?, Circle} \rangle$$

Advantages & i) This algorithm modifies the S & G sets as little as possible when accommodating new examples.

i.) This algorithm performs an exhaustive search of the space of all possible classification rule. don't have to store in memory every rule consistent with example - only S & G sets.

Disadvantages & This algorithm modifies the S & G sets as little as possible when accomodating new examples. It performs an exhaustive search of the space of all possible classification rule. does not tolerate any noise - the G and S sets "pass" each other.