

③	Outlook	Temperature	Humidity	Wind	Play Tennis
	Overcast	Hot	High	Weak	Yes
	Rain	Mild	High	Weak	Yes
	Rain	Cool	Normal	Strong	No
	Overcast	Cool	Normal	Weak	Yes

Find S &

- i) Initialize S to the most specific hypothesis
- ii) For each positive training instance x
 - For each attribute constant a_i in h
 - if the constant a_i is satisfied by x, then do nothing
 - else replace a_i in S by next most general constant that is satisfied by x
- iii) Output final hypothesis

Initialize S_0 to most specific hypothesis
 $S_0 : \langle \phi, \phi, \phi, \phi \rangle$

Iteration 1 :-

As this example is positive so we will compare each attribute of our first example with S_0

$S_1 : \langle \text{Overcast}, \text{Hot}, \text{High}, \text{Weak} \rangle$

Iteration 2 :- This example is also positive so we will again compare each attribute of our second example with S_1

$S_2: \langle ?, ?, \text{High}, \text{Weak} \rangle$

Iteration 3 :- As this example is negative and we know that this algorithm does not work on negative examples. Therefore we will simply skip this example.

$S_3: \langle ?, ?, \text{High}, \text{Weak} \rangle$

Iteration 4 :- This example is positive so we will again compare each attribute of our fourth example with the S_3

$S_4: \langle ?, ?, ?, \text{Weak} \rangle$

So the final hypothesis is

$S_f: \langle ?, ?, ?, \text{Weak} \rangle$