**FIND S:**

**CODE:**

import csv

a = []

with open('enjoysport.csv', 'r') as csvfile:

for row in csv.reader(csvfile):

a.append(row)

print(a)

print("\n The total number of training instances are : ",len(a))

num\_attribute = len(a[0])-1

print("\n The initial hypothesis is : ")

hypothesis = ['0']\*num\_attribute

print(hypothesis)

for i in range(0, len(a)):

if a[i][num\_attribute] == 'yes':

for j in range(0, num\_attribute):

if hypothesis[j] == '0' or hypothesis[j] == a[i][j]:

hypothesis[j] = a[i][j]

else:

hypothesis[j] = '?'

print("\n The hypothesis for the training instance {} is :\n" .format(i+1),hypothesis)

print("\n The Maximally specific hypothesis for the training instance is ")

print(hypothesis)

**OUTPUT:**

============ RESTART: C:/Users/prith/Desktop/MACHINE LEARNING/ONE.py ===========

[['sky', 'airtemp', 'humidity', 'wind', 'water', 'forcast', 'enjoysport'], ['sunny', 'warm', 'normal', 'strong', 'warm', 'same', 'yes'], ['sunny', 'warm', 'high', 'strong', 'warm', 'same', 'yes'], ['rainy', 'cold', 'high', 'strong', 'warm', 'change', 'no'], ['sunny', 'warm', 'high', 'strong', 'cool', 'change', 'yes']]

The total number of training instances are : 5

The initial hypothesis is :

['0', '0', '0', '0', '0', '0']

The hypothesis for the training instance 1 is :

['0', '0', '0', '0', '0', '0']

The hypothesis for the training instance 2 is :

['sunny', 'warm', 'normal', 'strong', 'warm', 'same']

The hypothesis for the training instance 3 is :

['sunny', 'warm', '?', 'strong', 'warm', 'same']

The hypothesis for the training instance 4 is :

['sunny', 'warm', '?', 'strong', 'warm', 'same']

The hypothesis for the training instance 5 is :

['sunny', 'warm', '?', 'strong', '?', '?']

The Maximally specific hypothesis for the training instance is

['sunny', 'warm', '?', 'strong', '?', '?']

>>>

