MLA0203 -FUNDAMENTALS OF MACHINE LEARNING

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1.Implement and demonstrate the FIND-S algorithm for finding the most specific  
hypothesis based on a given set of training data samples.

Program :

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:

