**Implement and demonstrate the FIND-S algorithm for finding the**

**most specific hypothesis based on a given set of training data samples.**

**Read the training data from a .CSV file**

CODE:

import csv

a = []

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

next(csvfile)

for row in csv.reader(csvfile):

a.append(row)

print(a)

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

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

print("\nThe initial hypothesis is : ")

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

print(hypothesis)

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

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

print ("\nInstance ", i+1, "is", a[i], " and is Positive Instance")

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("The hypothesis for the training instance", i+1, " is: " , hypothesis, "\n")

if a[i][num\_attribute] == 'no':

print ("\nInstance ", i+1, "is", a[i], " and is Negative Instance Hence Ignored")

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

print("\nThe Maximally specific hypothesis for the training instance is ", hypothesis)

OUTPUT:

