```python
""
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)
```

```
Python 3.10.11 (tags/v3.10.11:7d4cc5a, Apr  5 2023, 00:38:17) [MSC v.1929 64 bit
(AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
=============== RESTART: C:\Users\Raghul\Desktop\ML\Find s(1).py ===============
[['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 :  4

The initial hypothesis is :
['0', '0', '0', '0', '0', '0']

Instance  1 is ['sunny', 'warm', 'normal', 'strong', 'warm', 'same', 'yes']  and is
Positive Instance
The hypothesis for the training instance 1  is:  ['sunny', 'warm', 'normal',
'strong', 'warm', 'same']


Instance  2 is ['sunny', 'warm', 'high', 'strong', 'warm', 'same', 'yes']  and is
Positive Instance
The hypothesis for the training instance 2  is:  ['sunny', 'warm', '?', 'strong',
'warm', 'same']


Instance  3 is ['rainy', 'cold', 'high', 'strong', 'warm', 'change', 'no']  and is
Negative Instance Hence Ignored
The hypothesis for the training instance 3  is:  ['sunny', 'warm', '?', 'strong',
'warm', 'same']


Instance  4 is ['sunny', 'warm', 'high', 'strong', 'cool', 'change', 'yes']  and is
Positive Instance
The hypothesis for the training instance 4  is:  ['sunny', 'warm', '?', 'strong',
'?', '?']


The Maximally specific hypothesis for the training instance is  ['sunny', 'warm',
'?', 'strong', '?', '?']
```

```
Python 3.10.11 (tags/v3.10.11:7d4cc5a, Apr  5 2023, 00:38:17) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
=============== RESTART: C:\Users\Raghul\Desktop\ML\Find s(1).py ================
[['sunny', 'warm', 'normal', 'strong', 'warm', 'same', 'yes'], ['sunny', 'warm', 'high', 'strong', 'warm', 'same', 'yes'], ['rainy', 'cold', 'high', 'strong', 'war
m', 'change', 'no'], ['sunny', 'warm', 'high', 'strong', 'cool', 'change', 'yes']]

The total number of training instances are :  4

The initial hypothesis is :
['0', '0', '0', '0', '0', '0']

Instance  1 is ['sunny', 'warm', 'normal', 'strong', 'warm', 'same', 'yes']  and is Positive Instance
The hypothesis for the training instance 1  is:  ['sunny', 'warm', 'normal', 'strong', 'warm', 'same']


Instance  2 is ['sunny', 'warm', 'high', 'strong', 'warm', 'same', 'yes']  and is Positive Instance
The hypothesis for the training instance 2  is:  ['sunny', 'warm', '?', 'strong', 'warm', 'same']


Instance  3 is ['rainy', 'cold', 'high', 'strong', 'warm', 'change', 'no']  and is Negative Instance Hence Ignored
The hypothesis for the training instance 3  is:  ['sunny', 'warm', '?', 'strong', 'warm', 'same']


Instance  4 is ['sunny', 'warm', 'high', 'strong', 'cool', 'change', 'yes']  and is Positive Instance
The hypothesis for the training instance 4  is:  ['sunny', 'warm', '?', 'strong', '?', '?']


The Maximally specific hypothesis for the training instance is  ['sunny', 'warm', '?', 'strong', '?', '?']
>>>
```