In [3]:

```
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),hypothes
is)

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

```
[['sky', 'airtemp', 'humidity', 'wind', 'water', 'forcast', 'enjoysport'],
['sunny', 'warm', 'normal', 'strong', 'warm', 'same', 'yes'], ['sunny', 'w
arm', 'high', 'strong', 'warm', 'same', 'yes'], ['rainy', 'cold', 'high',
'strong', 'warm', 'change', 'no'], ['sunny', 'warm', 'high', 'strong', 'co
ol', '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', '?', '?']
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In [ ]:

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In [ ]:

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In [ ]:

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