In [8]:
```
import pandas as pd
df=pd.read_csv('EnjoySport.csv')
concepts=df.values[:,:-1]
target=df.values[:,-1]
df.head()
```

Out[8]:

	sky	airTemp	humidity	wind	water	forecast	enjoySport
0	sunny	warm	normal	strong	warm	same	yes
1	sunny	warm	high	strong	warm	same	yes
2	rainy	cold	high	strong	warm	change	no
3	sunny	warm	high	strong	cool	change	yes

In [9]:
```
def learn(concepts,target):
    specific_h=concepts[0].copy()
    general_h=[["?" for i in range(len(specific_h))] for i in range(len(specif

    for i,h in enumerate(concepts):
        if target[i]=="yes":
            for x in range(len(specific_h)):
                if h[x]!=specific_h[x]:
                    specific_h[x]='?'
                    general_h[x][x]='?'

        if target[i]=="no":
            for x in range(len(specific_h)):
                if h[x]!=specific_h[x]:
                    general_h[x][x]=specific_h[x]
                else:
                    general_h[x][x]='?'

    indices=[i for i, val in enumerate(general_h)
    if val ==['?','?','?','?','?','?']]
    for i in indices:
        general_h.remove(['?','?','?','?','?','?'])
    return specific_h,general_h
```

In [10]:
```
s_final,g_final=learn(concepts,target)
print(f"Final S: {s_final}")
print(f"Final G: {g_final}")
```

```
Final S: ['sunny' 'warm' '?' 'strong' '?' '?']
Final G: [['sunny', '?', '?', '?', '?', '?'], ['?', 'warm', '?', '?', '?',
'?']]
```

In [ ]: