In [2]:
```
import numpy as np
import pandas as pd
```

In [ ]:
```
```

In [3]:
```
df = pd.read_csv(r'DataSets/finds.csv')
df.head()
```

Out[3]:

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

In [ ]:
```
```

In [4]:
```
print("All input parameters are: ")
# np.array(df) converts the DataFrame df into a NumPy array.
input_vars = np.array(df)[:,:-1]
print(input_vars)

print("\nTarget column is: ")
targets = np.array(df)[:,-1]
print(targets)
```

```
All input parameters are:
[['sunny' 'warm' 'normal' 'strong' 'warm' 'same']
 ['sunny' 'warm' 'high' 'strong' 'warm' 'same']
 ['rainy' 'cold' 'normal' 'strong' 'warm' 'change']
 ['sunny' 'warm' 'high' 'strong' 'cool' 'change']]

Target column is:
['yes' 'yes' 'no' 'yes']
```

In [ ]:
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In [ ]:
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In [9]:
```
def findS(input_vars, target):
    # Initializing the most specific hypothesis:
    h = input_vars[0].copy()

    r = input_vars.shape[0]
    c = input_vars.shape[1]
    for i in range(r):
        # Only considering +ve example
        if(target[i] == 'yes'):
            # Iterative over all features of a specific row
            for j in range(c):
                if(input_vars[i][j] != h[j] and h[j] != '?'):
#                     print("\nFor row number: ",i, " feature ( input_vars
                    h[j] = '?'
    return h

h = findS(input_vars, targets)
print(h)
```

```
['sunny' 'warm' '?' 'strong' '?' '?']
```

In [ ]:

In [ ]:

In [ ]: