In [64]:
```
import pandas as pd
import numpy as np
```

In [65]:
```
data = pd.read_csv("data.csv")
```

In [66]:
```
data
```

Out[66]:

	Weather	Temperature	Humidity	Wind	Goes
0	Sunny	Warm	Mild	Strong	Yes
1	Rainy	Cold	Mild	Normal	No
2	Sunny	Moderate	Nomal	Normal	Yes
3	Sunny	Cold	High	Strong	Yes

In [67]:
```
last_column = data.iloc[:,-1]
required_index = 0
```

In [68]:
```
for i,n in enumerate(last_column):
    if n=="Yes":
        required_index = i;
        break
```

In [69]:
```
row_length = len(data.index)
col_length = len(data.columns)
f_p_hypothesis = data.iloc[required_index].values.tolist()[:-1]
for i in range(required_index+1,row_length):
    if data.iloc[i,col_length-1]=="Yes":
        for j in range(0,col_length-1):
            if data.iloc[i,j]!="?" and data.iloc[i,j]!=f_p_hypothesis[j]:
                f_p_hypothesis[j]="?"
            else:
                pass
```

In [70]:
```
f_p_hypothesis
```

Out[70]:
```
['Sunny', '?', '?', '?']
```

In [16]:

```
n = int(input("Enter no of samples  "))
data = list()
outcomes = list()
for i in range(0,n):
    lis = input("Enter features ").split(" ")
    outc = input("Ënter outcome ")
    data.append(lis)
    outcomes.append(outc)
    row_length = len(data)
col_length = len(data[0])
for i in range(0,row_length):
    if outcomes[i]=="Yes":
        hypothesis = data[i]
        index=i
        break
for i in range(index+1,row_length):
    if outcomes[i]=="Yes":
        for j in range(0,col_length):
            if data[i][j]!='?' and data[i][j]!=hypothesis[j]:
                hypothesis[j]="?"
```

```
Enter no of samples  4
Enter features Sunny Warm Mild Strong
Ënter outcome Yes
Enter features Rainy Cold Mild Normal
Ënter outcome No
Enter features Sunny Moderate Normal Normal
Ënter outcome Yes
Enter features Sunny Cold High Strong
Ënter outcome Yes
```

In [17]:

```
hypothesis
```

Out[17]:

```
['Sunny', '?', '?', '?']
```

In [15]:

Out[15]:

```
['Sunny', 'Warm', 'Mild', 'Strong']
```