

In [1]:

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1 #Implement the Candidate-Elimination Inductive Learning algorithm.
2 # Class : MCA II                                     #CA LAB-VII(A): LAB on Machine Learning
```

In []:

```
1 # Create the dataset and save it using .csv
2 # Dataset
3 #Example,Sky,AirTemp,Humidity,Wind,Water,Forecast,EnjoySport
4 #1,Sunny,Warm ,Normal,Strong,Warm,Same,Yes
5 #2,Sunny,Warm ,High,Strong,Warm,Same,Yes
6 #3,Rainy,Cold,High,Strong,Warm,Change,No
7 #4,Sunny,Warm ,High,Strong,Cool,Change,Yes
```

In [5]:

```
1 import numpy as np
2 import pandas as pd
```

In [11]:

```
1 data = pd.read_csv('enjoysport.csv')
2 concepts = np.array(data.iloc[:, :])
3 print("\nInstances are:\n", concepts)
4 #target = np.array(data.iloc[:, -1])
5 #print("\nTarget Values are: ", target)
6
7
8 h = ['0', '0', '0', '0', '0', '0', '0']
9
10 for row in concepts:
11     if row[-1] == 'Yes':
12         j = 0
13
14         for col in row:
15             if col != 'Yes':
16                 if col != h[j] and h[j] == '0':
17                     h[j] = col
18                 elif col != h[j] and h[j] != '0':
19                     h[j] = '?'
20
21         j = j + 1
22
23 print('maximally specific hypothesis :', h)
24
25
```

Instances are:

```
[[1 'Sunny' 'Warm' 'Normal' 'Strong' 'Warm' 'Same' 'Yes']
[2 'Sunny' 'Warm' 'High' 'Strong' 'Warm' 'Same' 'Yes']
[3 'Rainy' 'Cold' 'High' 'Strong' 'Warm' 'Change' 'No']
[4 'Sunny' 'Warm' 'High' 'Strong' 'Cool' 'Change' 'Yes']]
maximally specific hypothesis : ['?', 'Sunny', 'Warm', '?', 'Strong', '?', '?']
```

In []:

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1
```

