

```
In [2]: import csv

hypo = ['%'] * 6
data=[]
print("\nThe given training examples are:")

#Load the dataset
with open('p1_dataset.csv') as csv_file:
    readcsv = csv.reader(csv_file, delimiter=',')
    next(readcsv)
    for row in readcsv:
        print(row)
        if(row[-1]=="Yes"):
            data.append(row)

#Display positive examples
print("\nThe positive examples are:")
for x in data:
    print(x)

print("\nThe steps of the Find-s algorithm are\n",hypo)

#Implementing Find-S Algorithm
for i in range(len(data)):
    for j in range(len(data[i])-1):
        if hypo[j] == '%':
            hypo[j] = data[i][j]
        elif hypo[j] != data[i][j]:
            hypo[j] = '?'
    print(hypo)

print("\nThe maximally specific Find-s hypothesis for the given training examples is:")
print([h for h in hypo if h != '%'])
```

The given training examples are:

```
['Sunny', 'Warm', 'Normal', 'Strong', 'Warm', 'Same', 'Yes']
['Sunny', 'Warm', 'High', 'Strong', 'Warm', 'Same', 'Yes']
['Rainy', 'Cold', 'High', 'Strong', 'Warm', 'Change', 'No']
['Sunny', 'Warm', 'High', 'Strong', 'Cool', 'Change', 'Yes']
```

The positive examples are:

```
['Sunny', 'Warm', 'Normal', 'Strong', 'Warm', 'Same', 'Yes']
['Sunny', 'Warm', 'High', 'Strong', 'Warm', 'Same', 'Yes']
['Sunny', 'Warm', 'High', 'Strong', 'Cool', 'Change', 'Yes']
```

The steps of the Find-s algorithm are

```
['%', '%', '%', '%', '%', '%']
['Sunny', 'Warm', 'Normal', 'Strong', 'Warm', 'Same']
['Sunny', 'Warm', '?', 'Strong', 'Warm', 'Same']
['Sunny', 'Warm', '?', 'Strong', '?', '?']
```

The maximally specific Find-s hypothesis for the given training examples is:

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