

```
import csv
```

```
from google.colab import drive
drive.mount('/content/gdrive')
```

Mounted at /content/gdrive

```
num_attributes=6
a=[]
print("\n The Given Training Data Set \n")
```

The Given Training Data Set

```
with open('/content/student - Sheet1 (1).csv', 'r') as csvfile:
    reader = csv.reader(csvfile)
    for row in reader:
        a.append(row)
    print(row)
```

```
['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']
```

```
print("\n The initial value of hypothesis: ")
hypothesis = ['0'] * num_attributes
print(hypothesis)
```

The initial value of hypothesis:  
['0', '0', '0', '0', '0', '0']

```
print("\n Find S: Finding a Maximally Specific Hypothesis\n")
```

Find S: Finding a Maximally Specific Hypothesis

```
for i in range(0, len(a)):
    if a[i][num_attributes] == 'Yes':
        for j in range(0, num_attributes):
            if hypothesis[j] == '0':
                hypothesis[j] = a[i][j]
            if a[i][j] != hypothesis[j]:
                hypothesis[j] = '?'
            else:
                hypothesis[j] = a[i][j]
    print(" For Training instance No:{0} the hypothesis is".format(i), hypothesis)
```

Show hidden output

```
print("\n The Maximally Specific Hypothesis for a given Training Examples :\n")
print(hypothesis)
```

The Maximally Specific Hypothesis for a given Training Examples :  
['Sunny', 'Warm', '?', 'Strong', '?', '?']