

## 1. FIND-S Algorithm Python

```
#def find_s(examples):
    # initialize most specific hypothesis
    h = examples[0].copy()
    for i in range(len(h)):
        if h[i] != '?':
            h[i] = h[i]

    for ex in examples:
        if ex[-1] == "Yes":
            for i in range(len(h)):
                if h[i] != ex[i]:
                    h[i] = "?"

    return h

# dataset
data = [
    ["Sunny", "Warm", "Normal", "Strong", "Warm", "Same", "Yes"],
    ["Sunny", "Warm", "High", "Strong", "Warm", "Same", "Yes"],
    ["Rainy", "Cold", "High", "Strong", "Warm", "Change", "No"]
]

hypothesis = find_s(data)
print("Most Specific Hypothesis:", hypothesis)
```

## Output

Clear

```
Most Specific Hypothesis: ['Sunny', 'Warm', '?', 'Strong', 'Warm',  
 'Same', 'Yes']
```

```
==== Code Execution Successful ===
```