

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 ===
```