

## EX 1

**CODE:**

```
data = [  
    ['Sunny', 'Warm', 'Yes'],  
    ['Sunny', 'Cold', 'Yes'],  
    ['Rainy', 'Warm', 'No']  
]
```

```
hypothesis = None
```

```
for row in data:
```

```
    if row[-1] == 'Yes':
```

```
        if hypothesis is None:
```

```
            hypothesis = row[:-1]
```

```
        else:
```

```
            for i in range(len(hypothesis)):
```

```
                if hypothesis[i] != row[i]:
```

```
                    hypothesis[i] = '?'
```

```
print("Most Specific Hypothesis:", hypothesis)
```

## OUTPUT

The screenshot shows a Jupyter Notebook interface with the following components:

- Code Cell:** Contains the Python code for a function named `most_specific_hypothesis`. The code reads a dataset from a list of lists and iterates through it to find the most specific hypothesis. The output of the code is printed as "Most Specific Hypothesis: ['Sunny', '?']".
- Output Cell:** Shows the result of the code execution: "Most Specific Hypothesis: ['Sunny', '?']". Below this, a message indicates "Code Execution Successful".
- Toolbar:** Includes icons for file operations (New, Open, Save, etc.), a cell editor, a share button, and a run button.
- Clear Button:** Located in the top right corner of the output area.

```
main.py
1
2+ data = []
3      ['Sunny', 'Warm', 'Yes'],
4      ['Sunny', 'Cold', 'Yes'],
5      ['Rainy', 'Warm', 'No']
6  ]
7 hypothesis = None
8  for row in data:
9      if row[-1] == 'Yes':
10         if hypothesis is None:
11             hypothesis = row[:-1]
12         else:
13             for i in range(len(hypothesis)):
14                 if hypothesis[i] != row[i]:
15                     hypothesis[i] = '?'
16 print("Most Specific Hypothesis:", hypothesis)
17
```

Most Specific Hypothesis: ['Sunny', '?']  
== Code Execution Successful ==