

## EXPERIMENT – 2

### PROGRAM:

```
import csv

with open(input("Enter CSV filename: "), 'r') as file:

    data = list(csv.reader(file))

    num_attributes = len(data[0]) - 1

    S = ['0'] * num_attributes

    G = [['?'] * num_attributes]

    for example in data:

        if example[-1] == 'Yes':

            G = [g for g in G if all(g[i] == '?' or g[i] == example[i] for i in range(num_attributes))]

            for i in range(num_attributes):

                if S[i] != example[i]:

                    S[i] = '?'

        else:

            newG = []

            for g in G:

                if not all(g[i] == '?' or g[i] == example[i] for i in range(num_attributes)):

                    newG.append(g)

            else:

                for i in range(num_attributes):

                    if g[i] == '?':

                        hyp = g.copy()

                        hyp[i] = S[i] if S[i] != '?' else '0'

                        if hyp not in newG:

                            newG.append(hyp)
```

```
G = newG  
print("Specific hypothesis:", S)  
print("General hypotheses:", G)
```