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In [1]: import pandas as pd
import numpy as np

data = pd.read_csv("data_lab_1.csv")
values = np.array(data.iloc[:,0:-1])
target = np.array(data.iloc[:, -1])
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In [2]: def candidate_algorithm(values, target):
    specific_hyp = values[0].copy()
    general_hyp = [{"?" for i in range(len(specific_hyp))} for i in range(len(specific_hyp))]

    for i, h in enumerate(values):
        if target[i] == "yes":
            for x in range(len(specific_hyp)):
                if h[x] != specific_hyp[x]:
                    specific_hyp[x] = '?'
                    general_hyp[x][x] = '?'

        if target[i] == "no":
            for x in range(len(specific_hyp)):
                if h[x] != specific_hyp[x]:
                    general_hyp[x][x] = specific_hyp[x]
                else:
                    general_hyp[x][x] = '?'

    return specific_hyp, [val for val in general_hyp if val != ['?', '?', '?', '?', '?', '?']]
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In [4]: candidate_algorithm(values, target)
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Out[4]: (array(['sunny', 'warm', '?', 'strong', '?', '?'], dtype=object),
[[['sunny', '?', '?', '?', '?', '?'], ['?', 'warm', '?', '?', '?', '?',
'?']])
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