LAB 4: For a given set of training data examples stored in a .csv file, implement and demonstrate the Find-S algorithm to output a description of the set of all hypotheses consistent with the training examples.

```
import csv

# Load CSV directly into data
with open('enjoysport.csv', 'r') as file:
    data = list(csv.reader(file))

# Initialize hypothesis with the first positive example
hypothesis = []
for example in data[1:]:  # Skip header row
    if example[-1].lower() == 'yes':
        hypothesis = example[:-1]
        break

# Generalize hypothesis based on other positive examples
for example in data[1:]:
    if example[-1].lower() == 'yes':
        for i in range(len(hypothesis)):
            if hypothesis[i] != example[i]:
                hypothesis[i] = '?'

print("Final Hypothesis:", hypothesis)
```

Output:

Final Hypothesis: ['Sunny', 'Warm', '?', 'Strong', '?', '?']

Data Set:

enjoysport.csv

Sky	AirTemp	Humidity	Wind	Water	Forecast	EnjoySport
Sunny	Warm	Normal	Strong	Warm	Same	Yes
Sunny	Warm	High	Strong	Warm	Same	Yes
Rainy	Cold	High	Strong	Warm	Change	No
Sunny	Warm	High	Strong	Cool	Change	Yes