Lab 1 find s

Date -22/04/22

import pandas as pd

import numpy as np

#to read the data in the csv file

data = pd.read\_csv("data.csv")

print(data,"n")

#making an array of all the attributes

d = np.array(data)[:,:-1]

print("n The attributes are: ",d)

#segragating the target that has positive and negative examples

target = np.array(data)[:,-1]

print("n The target is: ",target)

#training function to implement find-s algorithm

def train(c,t):

for i, val in enumerate(t):

if val == "yes":

specific\_hypothesis = c[i].copy()

break

for i, val in enumerate(c):

if t[i] == "yes":

for x in range(len(specific\_hypothesis)):

if val[x] != specific\_hypothesis[x]:

specific\_hypothesis[x] = '?'

else:

pass

return specific\_hypothesis

#obtaining the final hypothesis

print("n The final hypothesis is:",train(d,target))

output:

sky air temp humidity wind water forecast enjoy sport

0 sunny warm normal strong warm same yes

1 sunny warm high strong warm same yes

2 rainy cold high strong warm change no

3 sunny warm high strong cool change yes n

n The attributes are: [['sunny' 'warm' 'normal' 'strong' 'warm' 'same']

['sunny' 'warm' 'high' 'strong' 'warm' 'same']

['rainy' 'cold' 'high' 'strong' 'warm' 'change']

['sunny' 'warm' 'high' 'strong' 'cool' 'change']]

n The target is: ['yes' 'yes' 'no' 'yes']

n The final hypothesis is: ['sunny' 'warm' '?' 'strong' '?' '?']

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