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Roll no : A-53

Batch : A2

Practical 1

```
from google.colab import drive
drive.mount('/content/gdrive')
```

```
Drive already mounted at /content/gdrive; to attempt to forcibly remount, call drive.mount("/content/gdrive", force_remount=True).
```

```
import pandas as pd
import numpy as np
```

```
data = pd.read_csv('/content/gdrive/MyDrive/enjoysport.csv')

data
```

	sky	airtemp	humidity	wind	water	forcast	enjoysport
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

```
data.head()
```

	sky	airtemp	humidity	wind	water	forcast	enjoysport
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

```
data.keys()
```

```
Index(['sky', 'airtemp', 'humidity', 'wind', 'water', 'forcast', 'enjoysport'], dtype='object')
```

```
print(data.loc[0])
```

```
sky            sunny
airtemp         warm
humidity      normal
wind          strong
water           warm
forcast         same
enjoysport       yes
Name: 0, dtype: object
```

```
cols = len(data.keys()) - 1
cols
```

```
6
```

```
rows = len(data)
rows
```

```
4
```

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

```
array([['sunny', 'warm', 'normal', 'strong', 'warm', 'same'],
       ['sunny', 'warm', 'high', 'strong', 'warm', 'same'],
       ['rainy', 'cold', 'high', 'strong', 'warm', 'change'],
```

```
           ['sunny', 'warm', 'high', 'strong', 'cool', 'change']],
          dtype=object)
```

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

```
array(['yes', 'yes', 'no', 'yes'], dtype=object)
```

```
def train(concept, target):

  for i, val in enumerate(target):
    if(val.lower() == "yes"):
      specific_h = concept[i].copy()
      break

  for i, val in enumerate(concept):
    if(target[i].lower() == "yes"):
      for j in range(len(specific_h)):
        if(val[j] != specific_h[j]):
          specific_h[j] = "?"
        else:
          pass

  return specific_h
```

```
train(concepts, target)
```

```
array(['sunny', 'warm', '?', 'strong', '?', '?'], dtype=object)
```