Module02_Day11_Problem_Solving_2

December 16, 2022

Problem Solving 2

[ ]:
```
def bagofwords(arr,voc):
    if type(arr) == str:
        arr = arr.lower()
        arr = arr.split(" ")
        voc = vocabulary(voc)
    result = list()

    if len(arr) == 0:
        return result
    if arr[0]in voc:
        result.append(arr.count(arr[0]))
        return result + bagofwords(arr[1:],voc)
    else:
        return [0] + bagofwords(arr[1:],voc)

def vocabulary(data):
    voc = set()
    for sent in data:
        sent.lower()
        voc.update(set(sent.split(" ")))
    return voc

str1 = ["The indian at India", "Master at india"]
voc_words = ["master","india","the"]

for s in str1:
    print(bagofwords(s,voc_words))
```

```
[1, 0, 0, 1]
[1, 0, 1]
```

[ ]:
```
def binary(arr,target):
    n = len(arr)-1
    if n == 0:
        return False
    elif arr[n//2] == target:
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        return True
    elif arr[n//2] > target:
        return binary(arr[:(n//2)],target)
    else:
        return binary(arr[(n//2)+1:],target)
```

[ ]:
```
name =["A","B","C","D"]
heights = [5,2,3,4]

def bubble(names,heights):
    n = len(heights)

    for i in range(n-1):
        sorted = True

        for j in range(n-i-1):
            if heights[j] > heights[j+1]:
                heights[j],heights[j+1] = heights[j+1],heights[j]
                names[j],names[j+1] =  names[j+1],names[j]
                sorted = False

        if sorted == True:
            break

    return heights,names

bubble(name,heights)
```

[ ]:
```
([2, 3, 4, 5], ['B', 'C', 'D', 'A'])
```