

# How to Solve Maximum Score of Words Problem(Pepcoding)

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def maxScore(words, values, freqMap):
    idx = 0
    return maxScoreUtil(words, values, freqMap, idx)

def maxScoreUtil(words, values, freqMap, idx):
    if idx == len(words):
        return 0
    notIncluded = 0 + maxScoreUtil(words, values, freqMap, idx + 1)
    localScore = 0
    flag = True
    for ch in words[idx]:
        if freqMap[ch] == 0:
            flag = False
            freqMap[ch] = freqMap[ch] - 1
            localScore = localScore + values[ord(ch) - ord('a')]
    syes = 0
    if flag:
        syes = localScore + maxScoreUtil(words, values, freqMap, idx + 1)
    for ch in words[idx]:
        freqMap[ch] = freqMap[ch] + 1
    return max(notIncluded, syes)

words = ['dog', 'dad', 'cat']
values = [1, 0, 9, 5, 0, 0, 3, 0, 0, 0, 0, 0, 0, 0, 2, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0]
freqMap = {'a': 1, 'b': 1, 'c': 1, 'd': 3, 'g': 1, 'o': 2, 't': 1}

print(maxScore(words, values, freqMap))
```

Result:21