

QUESTION 1 Write a function "MyPassion()" which takes in a sentence (a minimum of 5 words) and returns back a dictionary indicating the "mode" of each word.

```
def mode(x): #defining a function that returns mode of word
    fre_quency = {} #set

    for i in x:
        if i in fre_quency:
            fre_quency[i] += 1 #counting if i occurs more than once
        else:
            fre_quency[i] = 1
    return fre_quency

def maximum(fre_quency):
    num=list(fre_quency.values())
    mx=max(num)
    if num.count(mx)==len(num):
        return 1
    else:
        return mx

def mypassion():
    sentence=input("Enter the sentence: ")
    res=sentence.split()
    l=len(res)
    if(l<5):
        print("Invalid. Must contain atleast 5 words!")#returns the function if user enter inv
        return mypassion()
    else:
        pass
    answer=dict()#creates a final dictionary that prints the desired result
    for i in range(len(res)):
        mod=list()
        wrd=mode(res[i])
        mx=maximum(wrd)

        if(mx!=1):
            for j in wrd:
                if(wrd[j]==mx):
                    mod.append(j)

        answer[res[i]]=mod
    print(answer)
    mypassion()
```

Enter a sentence: python

Invalid. Must contain atleast 5 words!

Enter a sentence: python programming is fun everyday

{'python': [], 'programming': ['r', 'g', 'm'], 'is': [], 'fun': [], 'everyday': ['e',

QUESTION 2 Creating a Google emulator:

```
def MySearchEngine(s,l):
    str3=""
    str2=0
    minchange=10000
    for i in l:
        cou=0
        for j in s:
            if j not in i:
                cou+=1
        for k in i:
            if k not in s:
                cou+=1
        if cou<minchange:
            minchange=cou
            str2=len(i)
            str3=i
        elif cou==minchange:
            if str2>len(i):
                str2=len(i)
                print(i)
                str3=i
    return str3
print(MySearchEngine('apple', ['cherry', 'pineapple', 'melon','orange','strawberry','rasbe
↳ pineapple
```

✓ 0s completed at 11:58 AM

