19943:图的拉普拉斯矩阵

```python
def cs19943():
    n, m = map(int, input().split())
    a = [[0 for i in range(n)] for j in range(n)]
    d = [0 for i in range(n)]
    for i in range(m):
        i1, i2 = map(int, input().split())
        d[i1] += 1
        d[i2] += 1
        a[i1][i2] = 1
        a[i2][i1] = 1
    for i in range(n):
        a[i][i] -= d[i]
        for j in range(n - 1):
            print(-a[i][j], end=" ")
        print(-a[i][n - 1])
```

状态: Accepted

基本信息

#:	44577390
题目:	19943
提交人:	22n2200011358
内存:	3652kB
时间:	25ms
语言:	Python3
提交时间:	2024-04-08 20:47:32

源代码

```python
def cs19943():
    n, m = map(int, input().split())
    a = [[0 for i in range(n)] for j in range(n)]
    d = [0 for i in range(n)]
    for i in range(m):
        i1, i2 = map(int, input().split())
        d[i1] += 1
        d[i2] += 1
        a[i1][i2] = 1
        a[i2][i1] = 1
    for i in range(n):
        a[i][i] -= d[i]
        for j in range(n - 1):
            print(-a[i][j], end=" ")
        print(-a[i][n - 1])


cs19943()
```

18160:最大连通域面积(matrix,dfs)

```python
def cs18160():

    def find(y, x):

        if flag[y][x]:

            flag[y][x] = False

            tmp[0] += 1

            for i in range(y - 1, y + 2):

                for j in range(x - 1, x + 2):

                    if 0 <= i <= n - 1 and 0 <= j <= m - 1:

                        find(i, j)


    for t in range(int(input())):

        tmp, ans = [0], 0

        n, m = map(int, input().split())
```

```python
flag = [[True for j in range(m)] for i in range(n)]
ipt = []
for i in range(n):
    j = 0
    for js in input():
        if js == ".":
            flag[i][j] = False
        j += 1
for i in range(n):
    for j in range(m):
        if flag[i][j]:
            tmp[0] = 0
            find(i, j)
            ans = max(tmp[0], ans)
print(ans)
```

状态: Accepted

源代码

```python
def cs18160():
    def find(y, x):
        if flag[y][x]:
            flag[y][x] = False
            tmp[0] += 1
            for i in range(y - 1, y + 2):
                for j in range(x - 1, x + 2):
                    if 0 <= i <= n - 1 and 0 <= j <= m - 1:
                        find(i, j)

    for t in range(int(input())):
        tmp, ans = [0], 0
        n, m = map(int, input().split())
        flag = [[True for j in range(m)] for i in range(n)]
        ipt = []
        for i in range(n):
            j = 0
            for js in input():
                if js == ".":
                    flag[i][j] = False
                j += 1
        for i in range(n):
            for j in range(m):
                if flag[i][j]:
                    tmp[0] = 0
                    find(i, j)
                    ans = max(tmp[0], ans)
        print(ans)


cs18160()
```

03441:4 Values whose Sum is 0

```python
def cs03441():

    a, b, c, d = [], [], [], []

    dct, st1, st2 = {}, set(), set()

    n = int(input())

    for i in range(n):

        ai, bi, ci, di = map(int, input().split())

        a.append(ai)

        b.append(bi)

        c.append(ci)

        d.append(di)

    for i in list(a):
```

```
        for j in list(b):
            if i + j in st1:
                dct[i + j] += 1
            else:
                dct[i + j] = 1
                st1.add(i + j)
    ans = 0
    for i in list(c):
        for j in list(d):
            if -i - j in st1:
                ans += dct[-i - j]
    print(ans)
```

状态: **Accepted**

源代码

```python
def cs03441():
    a, b, c, d = [],[],[],[]
    dct, st1, st2 = {}, set(), set()
    n = int(input())
    for i in range(n):
        ai, bi, ci, di = map(int, input().split())
        a.append(ai)
        b.append(bi)
        c.append(ci)
        d.append(di)
    for i in list(a):
        for j in list(b):
            if i + j in st1:
                dct[i + j] += 1
            else:
                dct[i + j] = 1
                st1.add(i + j)
    ans = 0
    for i in list(c):
        for j in list(d):
            if -i - j in st1:
                ans += dct[-i - j]
    print(ans)

cs03441()
```

04089:电话号码

```python
def cs04089():
    for t in range(int(input())):
        n = int(input())
        pn = []
        dct = {}
        for i in range(n):
            pn.append(input())
        pn.sort(key=len, reverse=True)
        flag = True
        for i in range(n):
            dct1 = dct
            for j in pn[i][:-1]:
                if not dct1.get(j):
                    dct1[j] = {-1: True}
                dct1 = dct1[j]
            if dct1.get(pn[i][-1]):
                flag = False
                break
            else:
                dct1[pn[i][-1]] = {-1: True}
        if flag:
            print("YES")
```

```
        else:
            print("NO")
```

```python
def cs04089():
    for t in range(int(input())):
        n = int(input())
        pn = []
        dct = {}
        for i in range(n):
            pn.append(input())
        pn.sort(key=len, reverse=True)
        flag = True
        for i in range(n):
            dct1 = dct
            for j in pn[i][:-1]:
                if not dct1.get(j):
                    dct1[j] = {-1: True}
                dct1 = dct1[j]
            if dct1.get(pn[i][-1]):
                flag = False
                break
            else:
                dct1[pn[i][-1]] = {-1: True}
        if flag:
            print("YES")
        else:
            print("NO")


cs04089()
```

04082:树的镜面映射

```python
def cs04082():
    def ad(knot):
        if ipt[knot][1] == "0":
            dct[knot] = [knot + 1]
            tmp.append(knot)
        else:
            dct[knot] = [-1, -1]
            if tmp:
                dct[tmp.pop()].append(knot + 1)
            if knot < n - 1:
```

```python
        ad(knot + 1)


def pp(knot):
    if knot + 1:
        dct[knot].append(l[0])
        pp(dct[knot][1])
        l[0] = dct[knot][2] + 1
        mxl[0] = max(l[0], mxl[0])
        pp(dct[knot][0])


l = [0]
mxl = [0]
tmp = []
n = int(input())
ipt = input().split()
dct = {}
ad(0)
pp(0)
ans, anss = [[] for i in range(mxl[0])], ""
for i in range(n):
    ans[dct[i][2]].append(i)
for i in ans:
```

```
    while i:
        t = ipt[i.pop()][0]
        if t != "$":
            anss += t + " "
    print(anss[:-1])
```

#44587415提交状态

状态: **Accepted**

源代码

```python
def cs04082():
    def ad(knot):
        if ipt[knot][1] == "0":
            dct[knot] = [knot + 1]
            tmp.append(knot)
        else:
            dct[knot] = [-1, -1]
            if tmp:
                dct[tmp.pop()].append(knot + 1)
        if knot < n - 1:
            ad(knot + 1)

    def pp(knot):
        if knot + 1:
            dct[knot].append(l[0])
            pp(dct[knot][1])
            l[0] = dct[knot][2] + 1
            mxl[0] = max(l[0], mxl[0])
            pp(dct[knot][0])

    l = [0]
    mxl = [0]
    tmp = []
    n = int(input())
    ipt = input().split()
    dct = {}
    ad(0)
    pp(0)
    ans, anss = [[] for i in range(mxl[0])], ""
    for i in range(n):
        ans[dct[i][2]].append(i)
    for i in ans:
```

基本信息

#:	44587415
题目:	04082
提交人:	22n2200011358
内存:	3704kB
时间:	27ms
语言:	Python3
提交时间:	2024-04-09 20:58:03

sw103383

```
def sw103383():

    def cul(t):

        if flag[t]:

            tmp[0] += key[t]

            flag[t] = False

            for j in dct[t]:
```

```python
                cul(j)


n, m = map(int, input().split())
key = list(map(int, input().split()))
dct = {i: [] for i in range(n)}
flag = [True for i in range(n)]
ans, tmp = 0, [0]
for i in range(m):
    a, b = map(int, input().split())
    dct[a].append(b)
    dct[b].append(a)
for i in range(n):
    if flag[i]:
        cul(i)
        ans = max(ans, tmp[0])
        tmp[0] = 0
print(ans)
```

```python
def sw103383():
    def cul(t):
        if flag[t]:
            tmp[0] += key[t]
            flag[t] = False
            for j in dct[t]:
                cul(j)

    n, m = map(int, input().split())
    key = list(map(int, input().split()))
    dct = {i: [] for i in range(n)}
    flag = [True for i in range(n)]
    ans, tmp = 0, [0]
    for i in range(m):
```

测试输入　　提交结果　　历史提交

完美通过　　　　　　　　　　　　　　　　　　　查看题解

100% 数据通过测试

运行时长: 0 ms

收起面板　　　　　　　　　　　　　　　　运行 ˅　　提交

总结: 难度回升, 总体可控。电话号码耗时较多, 后面应用并查集解决。这两周进入期中季, 我会减少花在数算上的时间