

```
1 //日期: 2018/ 时间:
2 #include <stdio.h>
3 #include <stdlib.h>
4 #include <algorithm>
5 #include <cstring>
6 using namespace std;
7
8 const int maxv = 510;
9 const int INF = 1000000000;
10 int n,m,c1,c2; //节点数量, 边数, 起点, 终点
11 int G[maxv][maxv];
12 int d[maxv];
13 bool vis[maxv] = {false};
14 int weight[maxv]; //点权
15 int w[maxv];
16 int num[maxv]; //记录路径数量
17
18 void Dijkstra(int s){
19     fill(d,d+maxv,INF);
20     memset(num,0,sizeof(num));
21     memset(w,0,sizeof(w));
22     w[s] = weight[s];
23     num[s]=1;
24     d[s] = 0;
25
26     for(int i=0;i<n;i++){
27         int u=-1,MIN = INF;
28         for(int j=0;j<n;j++){
29             if(vis[j] == false && d[j] < MIN){
30                 u = j;
31                 MIN = d[j];
32             }
33         }
34         if(u == -1) return;
35
36         vis[u] = true;
37         for(int v=0;v<n;v++){
38             if(vis[v] == false && G[u][v]!=INF){
39                 if(d[u] + G[u][v] < d[v]){
40                     d[v] = d[u] + G[u][v];
41                     w[v] = w[u] + weight[v];
42                     num[v] = num[u];
43                 } else if(d[u] + G[u][v] == d[v]){
44                     if( w[u] + weight[u] > w[v])
45                         w[v] = w[u] + weight[v];
46                     num[v]+=num[u];
47                 }
48             }
49         }
50     }
51 }
52
53 }
54
55 int main(){
56     scanf("%d%d%d%d",&n,&m,&c1,&c2);
```

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57
58     fill(G[0],G[0]+maxv*maxv,INF);
59
60     for(int i=0;i<n;i++)
61         scanf("%d",&weight[i]);
62     int v1,v2,v;
63     for(int i=0;i<m;i++){
64         scanf("%d%d%d",&v1,&v2,&v);    //v1->v2 v为边权
65         G[v1][v2] = v;
66         G[v2][v1] = v;
67     }
68
69     Dijkstra(c1);
70
71     printf("%d %d",num[c2],w[c2]);
72
73     return 0;
74 }
75
76
```