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Shortest Distance

Problem

Submissions

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Submitted 2 hours ago • Score: 25.00

Status: **Accepted**

✓	Test Case #0	✓	Test Case #1	✓	Test Case #2
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✓	Test Case #9	✓	Test Case #10	✓	Test Case #11
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✓	Test Case #15	✓	Test Case #16	✓	Test Case #17
✓	Test Case #18	✓	Test Case #19		

Submitted Code

Language: C++20

Open in editor

```
1 #include<bits/stdc++.h>
2 using namespace std;
3
4 const int N = 101;
5 const long long INF = 1e18+8;
6 long long n, m;
7 long long dist[N][N];
8
9 // void printMatrix()
10 // {
11 //     for(int i = 1; i<=n; i++)
12 //     {
13 //         for(int j = 1; j<=n; j++)
14 //         {
15 //             if(dist[i][j] == INF)
16 //             {
17 //                 cout<<"-1"<<" ";
18 //             }
19 //             else
20 //             {
21 //                 cout<<dist[i][j]<<" ";
22 //             }
23 //         }
24 //     }
25 //     cout<<endl;
26 // }
27 // }
```

```
28
29 void initializeMatrix()
30 {
31     for(int i = 1; i<N; i++)
32     {
33         for(int j =1 ; j<N; j++)
34         {
35             if(i == j)
36             {
37                 dist[i][j] = 0;
38             }
39             else
40             {
41                 dist[i][j]= INF;
42             }
43         }
44     }
45 }
46
47 int main()
48 {
49
50     cin >> n >> m;
51
52     initializeMatrix();
53
54
55     for(int i = 1;i<=m; i++)
56     {
57         int u, v, w;
58         cin >> u >> v >> w;
59         if(w < dist[u][v])
60         {
61             dist[u][v] = w;
62         }
63     }
64
65
66     for(int k = 1; k<=n; k++)
67     {
68         for(int i = 1; i<=n; i++)
69         {
70             for(int j = 1; j<=n; j++)
71             {
72                 dist[i][j] = min(dist[i][j], dist[i][k] + dist[k][j]);
73             }
74         }
75     }
76
77
78     // printMatrix();
79
80     long long q;
81     cin >> q;
82     while(q--)
83     {
84         long long src, desti;
85         cin >> src >> desti;
86         if(dist[src][desti] == INF)
87         {
88             cout<<"-1"<<endl;
89         }
90         else
91         {
92             cout<<dist[src][desti]<<endl;
93         }
94     }
```

```
94  
95     }  
96  
97  
98  
99  
100  
101     return 0;  
102 }
```

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