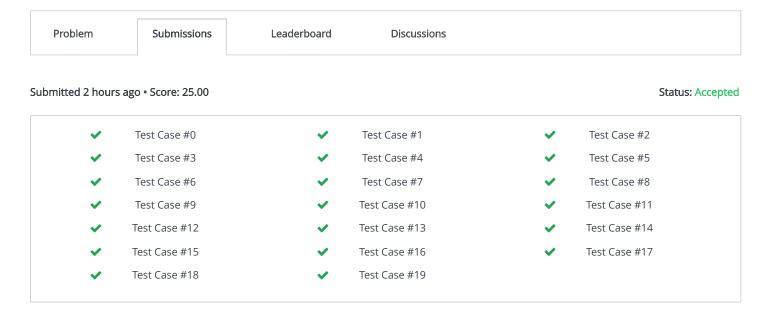
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## **Shortest Distance**



## **Submitted Code**

```
Language: C++20
                                                                                                 P 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];
 9 // void printMatrix()
10 // {
11 //
           for(int i = 1;i<=n; i++)
12 //
13 //
               for(int j = 1; j<=n; j++)
14 //
                   if(dist[i][j] == INF)
15 //
16 //
                        cout<<"-1"<<" ";
17 //
                   }
18 //
19 //
20 //
21 //
                       cout<<dist[i][i]<<" ";
22 //
23
24 //
               cout<<endl;</pre>
25 //
26 //
27 // }
```

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

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