

Travelling_Sales_person

Problem

Submissions

Leaderboard

Discussions

Write Java program to Implement Travelling Sales Person problem using Dynamic programming

[f](#) [t](#) [in](#)

Input Format

4 999 1 3 6 1 999 2 3 3 2 999 1 6 3 1 999

Constraints

No Constraints

Output Format

tsp tour 1--->2--->4--->3--->1 Tourcost=8

Sample Input 0

```
4
999 1 3 6
1 999 2 3
3 2 999 1
6 3 1 999
```

Sample Output 0

```
tsp tour
1--->2--->4--->3--->1
Tourcost=8
```

Contest ends in 2 months

Submissions: 76

Max Score: 10

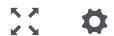
Difficulty: Medium

Rate This Challenge:

☆☆☆☆☆

[More](#)

java 7



```
1 //224G1A0553
2 import java.util.Scanner;
3 public class Tsp {
4     static int cost[][];
5     public int tsp(int[] path,int start,int n) {
6         int i,j,k,ccost;
7         int[] mintour=new int[n+1];
8         int[] temp=new int[n+1];
9         if(start==n-1)
10            return cost[path[n-1]][path[n]]+cost[path[n]][1];
11         int mincost=999;
12         for(i=start+1;i<=n;i++) {
13             for(j=1;j<=n;j++)
14                 temp[j]=path[j];
15             temp[start+1]=path[i];
16             temp[i]=path[start+1];
```

```
17 ▼ if(cost[path[start]][path[i]]+(ccost=tsp(temp,start+1,n))<mincost) {
18 ▼ mincost=cost[path[start]][path[i]]+ccost;
19   for(k=1;k<=n;k++)
20 ▼ mintour[k]=temp[k];
21 }
22 }
23 for(i=1;i<=n;i++)
24 ▼ path[i]=mintour[i];
25 return mincost;
26 }
27 ▼ public static void main(String[] args) {
28   int mincost,n,i,j;
29   Scanner s = new Scanner(System.in);
30   //System.out.println("enter the no of cities: ");
31   n=s.nextInt();
32 ▼ int path[] =new int[n+1];
33 ▼ cost = new int[n+1][n+1];
34   //System.out.println("Enter the cost matrix:");
35   for(i=1;i<=n;i++)
36     for(j=1;j<=n;j++)
37 ▼ cost[i][j]=s.nextInt();
38   for(i=1;i<=n;i++)
39 ▼ path[i]=i;
40   Tsp obj = new Tsp();
41   mincost=obj.tsp(path,1,n);
42   System.out.println("tsp tour");
43   for(i=1;i<=n;i++)
44 ▼ System.out.print(path[i] + "---->");
45   System.out.println("1");
46   System.out.println("Tourcost=" + mincost);
47 }
48 }
```

Line: 1 Col: 13

[Upload Code as File](#) ☐ Test against custom input

Run Code

Submit Code