3 Questions   **Total Marks: 600.0**

3 Programming Questions

1. Weekend planning   + 300.0

2. Beautiful numbers   + 100.0

3. playing with graphs!   + 200.0

Question 1   Max. Marks 300.00 ❷

Weekend planning

You are given road network, with N cities and M bi-directional roads. Each road has some positive amount of tax associated to it, meaning if there is a road connecting cities A and B with tax C, you will need to pay C rupees to the government every time when you use this road.

but you have a wildcard which can be used at most K times and when you use wildcard while using a road, you do not need to pay tax associated with that road.

You are planning to visit one city this weekend, due to the limited budget you want to estimate minimum possible cost from your home-city to every other city, so that you can choose the destination according to the budget. your home-city is a city numbered with 1.

Input format:

The first line of the input contains N, M and K. following M lines contain 3 integers U V C, meaning there is a road between cities U and V with tax C associated.

Output fomat:

Print N space separated integers in a single line, ith integer indicating the minimum cost of travelling from city 1 to i.

Constraints
$$1 \leq N, M \leq 5 * 10^5$$
$$0 \leq K \leq 15$$

Sample Input 🔗	Sample Output 🔗
4 4 1 1 2 2 2 3 3 1 3 6 3 4 11	0 0 0 5

Explanation

In the given sample, the distance of 1 from 1 is 0. Now if you want to go to city 2, you can use the wildcard and go from city 1 to 2 directly. Now if you want to go to city 3, you can go using the road 1-3 by using a wildcard. To go to city 4, you can go from 1 to 2, then 2 to 3 and then using wildcard from 3 to 4, so the total cost is 2 + 3 = 5.

Note: Your code should be able to convert the sample input into the sample output. However, this is not enough to pass the challenge, because the code will be run on multiple test cases. Therefore, your code must solve this problem statement.

Time Limit: 5.0 sec(s) for each input file
Memory Limit: 256 MB
Source Limit: 1024 KB
Marking Scheme: Marks are awarded if any testcase passes
Allowed Languages: C, C++, C++14, Clojure, C#, D, Erlang, F#, Go, Groovy, Haskell, Java, Java 8, JavaScript(Rhino), JavaScript(Node.js), Julia, Kotlin, Lisp, Lisp (SBCL), Lua, Objective-C, OCaml, Octave, Pascal, Perl, PHP, Python, Python 3, R(RScript), Racket, Ruby, Rust, Scala, Swift, Swift-4.1, Visual Basic
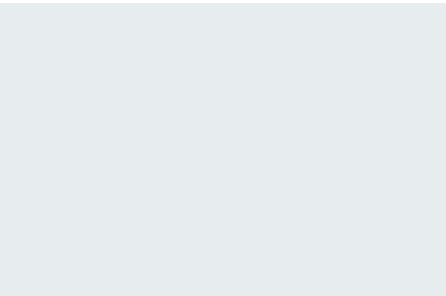
New Submission	All Submissions

Java 8 (oracle 1.8.0_131) ▾   Save ⤢ ⚙

```java
import java.util.*;

class TestClass {
    public static void main(String args[] ) throws Exception {
        Scanner s = new Scanner(System.in);
        String name = s.nextLine();                // Reading input from STDIN
        System.out.println("Hi, " + name + ".");   // Writing output to STDOUT

    }
}
```
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☑ Provide custom input

COMPILE & TEST   SUBMIT

Next Question ›

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