Laboratory – Shortest Weighted Path

Read in a directed weighted graph which has been described as a list of edges, a source and a destination vertex and then output the shortest path between the source and the destination.

An extra "rule" so that your results can be easily compared:
At any point if there is a choice of which vertex to visit, visit them in numerical order
Eg: if a vertex's neighbours are 5,2,7 and 3 process them in the order 2, 3, 5 then 7.

Input format

Each vertex will be represented as a number from 0 to n-1 for n vertices.

The first line of input will state how many vertices are in the graph

The second line will specify the start and destination vertices

Each subsequent line will consist of tuples of numbers each describing an edge. The first number in the pair describes the vertex from where the edge originates, the second number states the vertex where the edge leads to and the third number indicates the weight of that path.

Output format

Output the shortest path from the source to the destination as a list of vertices, on one line, separated by spaces

SAMPLE INPUT: ***find path from 2 to 1***	**SAMPLE OUTPUT**
3 2 1 2 1 7 0 1 2 1 0 10 1 2 4 0 2 6 2 0 1	**2 0 1**