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There are N computers in a network, labelled$\{1, 2, 3, \ldots, N\}$. There are M one-directional links which connect pairs of computers. Computer 1 is trying to send a virus to computer N. This can happen as long as there is a path of links from computer 1 to computer N. To prevent this, you've decided to remove some of the links from the network so that the two computers are no longer connected. For each link, you've calculated the cost of removing it. What is the minimum total cost to disconnect the computers as required, and which edges should be removed to achieve this minimum cost?

> **Step 1: Create the flow network:**
>
> - Every computer are the vertices of the graph
> - Each edge is represented by two directed edges of opposite orientation
> - Each of capacity equal to the cost of removing link.
> - **Computer1** as Source(S) and **computerN** as sink(T)
> - Use Edmons-Karp algorithm count maximal flow
>
> **Step 2: construct the last residual network flow :**
>
> - After the algorithm has converged:
>
> > Look at all the vertices from the S and to there path
>
> - Get minimal cut
>
> All the edges crossing such a minimal cut. The number of such edges (in the forward direction only) determines the minimum cost needed to disconnect the computer 1 to N.