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| --- |
| #include <iostream> |
|  | using namespace std; |
|  |  |
|  | int main() { |
|  | int n, i, j, k, row, col, mincost=0, min; |
|  | char op; |
|  | cout<<"Enter no. of vertices: "; |
|  | cin>>n; |
|  | int cost[n][n]; |
|  | int visit[n]; |
|  | for(i=0; i<n; i++) |
|  | visit[i] = 0; |
|  | for(i=0; i<n; i++) |
|  | for(int j=0; j<n; j++) |
|  | cost[i][j] = -1; |
|  | for(i=0; i<n; i++) |
|  | { |
|  | for(j=i+1; j<n; j++) |
|  | { |
|  | cout<<"Do you want an edge between "<<i+1<<" and "<<j+1<<": "; |
|  | //use 'i' & 'j' if your vertices start from 0 |
|  | cin>>op; |
|  | if(op=='y' || op=='Y') |
|  | { |
|  | cout<<"Enter weight: "; |
|  | cin>>cost[i][j]; |
|  | cost[j][i] = cost[i][j]; |
|  | } |
|  | } |
|  | } |
|  | visit[0] = 1; |
|  | for(k=0; k<n-1; k++) |
|  | { |
|  | min = 999; |
|  | for(i=0; i<n; i++) |
|  | { |
|  | for(j=0; j<n; j++) |
|  | { |
|  | if(visit[i] == 1 && visit[j] == 0) |
|  | { |
|  | if(cost[i][j] != -1 && min>cost[i][j]) |
|  | { |
|  | min = cost[i][j]; |
|  | row = i; |
|  | col = j; |
|  | } |
|  | } |
|  | } |
|  | } |
|  | mincost += min; |
|  | visit[col] = 1; |
|  | cost[row][col] = cost[col][row] = -1; |
|  | cout<<row+1<<"->"<<col+1<<endl; |
|  | //use 'row' & 'col' if your vertices start from 0 |
|  | } |
|  | cout<<"\nMin. Cost: "<<mincost; |
|  | return 0; |
|  | } |