```
ninjassolutions.s3.amazonaws.com/00000000000000552.zip
#include<iostream>
#include<climits>
using namespace std;
int findMinVertex(int* distance, bool* visited, int n){
 int minVertex = -1;
 for(int i = 0; i < n; i++){
  if(!visited[i] && (minVertex == -1 || distance[i] < distance[minVertex])){</pre>
   minVertex = i;
  }
 }
 return minVertex;
}
void dijkstra(int** edges, int n){
 int* distance = new int[n];
 bool* visited = new bool[n];
 for(int i = 0; i < n; i++){
  distance[i] = INT_MAX;
  visited[i] = false;
 }
 distance[0] = 0;
 for(int i = 0; i < n - 1; i++){
  int minVertex = findMinVertex(distance, visited, n);
  visited[minVertex] = true;
  for(int j = 0; j < n; j++){
   if(edges[minVertex][j] != 0 && !visited[j]){
    int dist = distance[minVertex] + edges[minVertex][j];
    if(dist < distance[j]){</pre>
     distance[j] = dist;
    }
   }
  }
 }
 for(int i = 0; i < n; i++){
  cout << i << " " << distance[i] << endl;</pre>
 }
 delete [] visited;
 delete [] distance;
```

}

```
int main() {
 int n;
 int e;
 cin >> n >> e;
 int** edges = new int*[n];
 for (int i = 0; i < n; i++) {
 edges[i] = new int[n];
 for (int j = 0; j < n; j++) {
  edges[i][j] = 0;
 }
 }
 for (int i = 0; i < e; i++) {
 int f, s, weight;
 cin >> f >> s >> weight;
 edges[f][s] = weight;
 edges[s][f] = weight;
 cout << endl;</pre>
 dijkstra(edges, n);
 for (int i = 0; i < n; i++) {
 delete [] edges[i];
delete [] edges;
}
```