

Bellman Ford Algorithm

Description

It is a single source shortest path algorithm, which finds the minimum distance from the source to all other vertices in the graph. Though it is slower than Dijkstra's algorithm, it is useful as unlike the Dijkstra's algorithm, it can handle negative cycles in a graph.

Pseudocode

```
bellman ford(source):  
    distance[source] = 0  
    for i from 1 to n-1:  
        for [(u, v), w] in list of edges:  
            if distance[v] > distance[u]+w:  
                distance[v] = distance[u]+w
```

Complexity

$O(|V| * |E|)$, where V is the number of vertices in the graph, and E is the number of edges in the graph.