23. Implementation of Shortest Path Algorithms using Dijkstra’s Algorithm

**Aim**

To write a C program to implement the **Shortest Path Algorithm** using **Dijkstra’s Algorithm**

**Algorithm:**

1. **Start**
2. Input the graph as an adjacency matrix or adjacency list.
3. Initialize:
   * A distance array dist[] with infinity (∞) for all vertices except the source (set to 0).
   * A visited array visited[] to keep track of processed vertices.
4. Repeat for all vertices:
   * Select the unvisited vertex u with the minimum dist[u].
   * Mark u as visited.
   * For each neighbor v of u:
     + If dist[u] + weight(u,v) < dist[v], then update dist[v].
5. Continue until all vertices are visited.
6. Print the shortest distances from the source to all vertices.
7. **Stop**

**Program**

