Implementation of Dijkstra Algorithm:

Initialization:

- Create a set *sptSet* (Shortest Path Tree Set) to track vertices whose shortest path has been finalised.
- Initialise all distances to `infinity` except the source vertex, which is initialised to `0`.

Iterative Process:

- While there are still vertices not included in the `sptSet`:
    - Pick the vertex `u` with the smallest distance that is not in `sptSet`.
    - Add `u` to `sptSet` (finalise its shortest path).
    - Update the distance values for all adjacent vertices `v` of `u`. If the sum of the distance of `u` and the weight of edge `u-v` is less than the current distance of `v`, update the distance of `v`.

Repeat:

- This process continues until all vertices are included in the `sptSet`, ensuring that the shortest paths to all vertices are computed.