

Tracking of the Dijkstra's shortest path Algorithm:

	1	2	3	4	5	6	7	8
0	4	INF	INF	INF	INF	INF	8	INF
1	4	4+8=12	INF	INF	INF	INF	15 < 8	INF
7	19 < 4	12	INF	INF	INF	8+1=9	8	15
6	4	12	INF	INF	9+2=11	9	8	15
5	4	15 < 12	11+14=25	11+10=21	11	9	8	15
2	4	12	25 > 19	21	11	9	8	15 > 14
8	4	12	19	21	11	9	8	14
3	4	12	19	21	11	9	8	14
4	4	12	19	21	11	9	8	14

If you want to go from A path to B path:

* To Calculate the Shortest Path - The Least number of stops for example **Breadth-first search** is used to calculate the shortest path for an unweighted graph.

* To Calculate the Shortest Path - The Least time could be obtained **Dijkstra's algorithm** is used to calculate the shortest path for a weighted graph and works when all the weights are positive.

* If you have negative weights, use the **Bellman-Ford algorithm**.