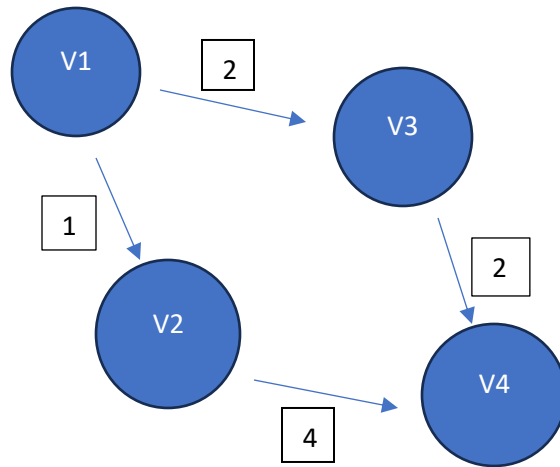


Dijkstra's Algorithm:

Dijkstra's algorithm is described as a greedy algorithm because it solves the problem in stages, picking what it thinks is the best choice at each stage. It selects a vertex at a given stage, marks it known, and then selects the next vertex based on the shortest path at that stage. It updates the table to adjust all unknown paths to their correct weights and continues. Once all the vertices are known it calculates the shortest path recursively.



v	Known	d_v	p_v
v_1	T	0	v_1
v_2	T	1	v_1
v_3	T	2	v_1
v_4	T	4	v_3

Final table after shortest path is found