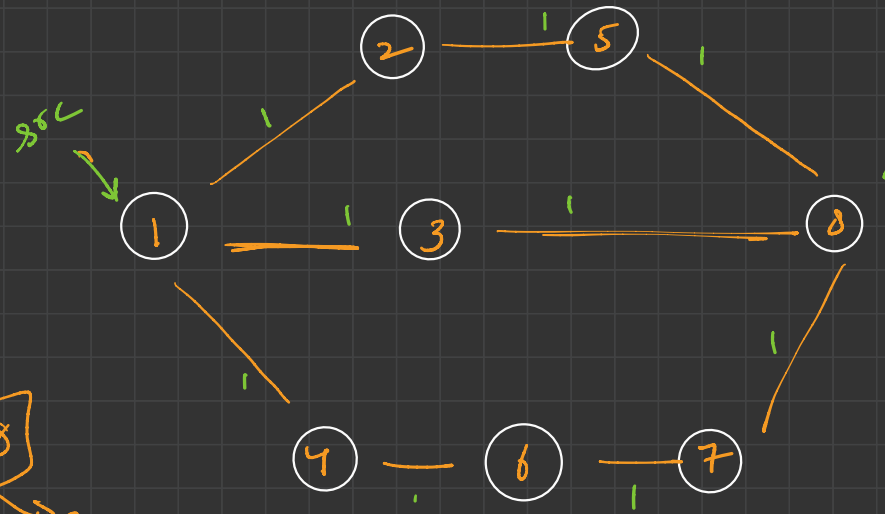
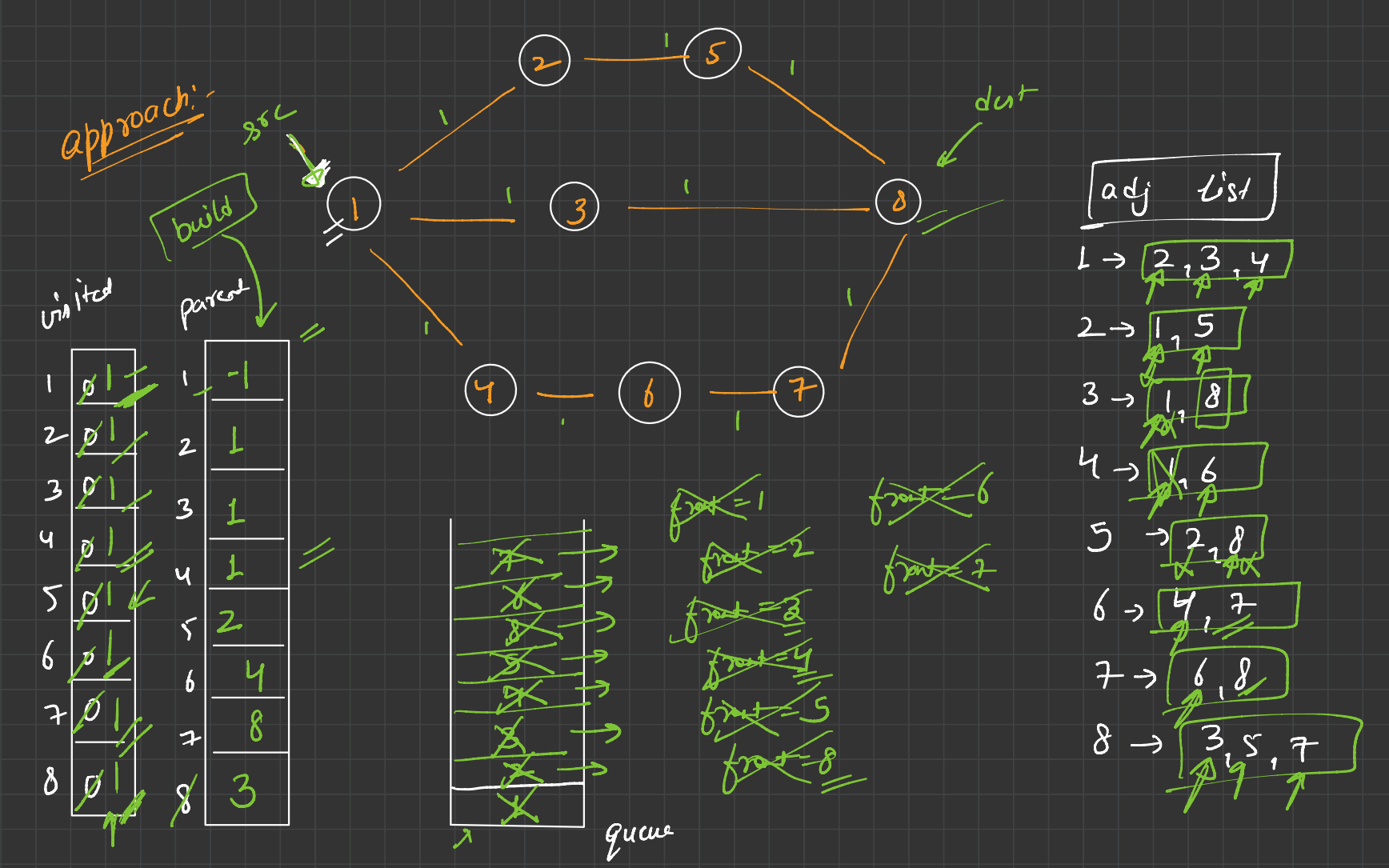
Shortest Path in Undirected Graph

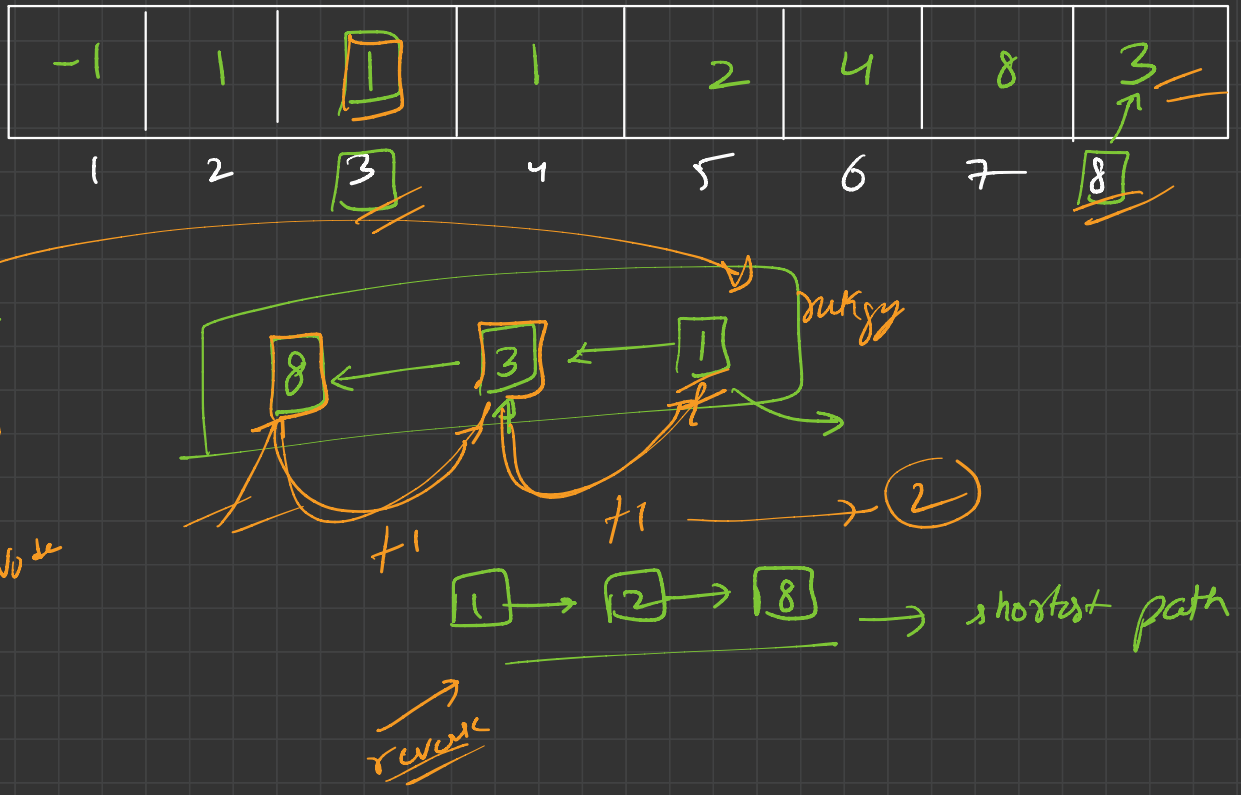


path 1 -> [1 -> 2 -> 5 -> 8]

path 2 -> [1 -> 3 -> 8]

path 3 -> [1 -> 4 -> 6 -> 7 -> 8]


approach:
src
dst
build
visited
parent
queue
adj list
1 → 2, 3, 4
2 → 1, 5
3 → 1, 8
4 → 1, 6
5 → 2, 8
6 → 4, 7
7 → 6, 8
8 → 3, 5, 7


-1
1
1
1
2
4
8
3
1
2
3
4
5
6
7
8
s = 1
d = 8
current Node
sukyy
8
3
1
+1
+1
2
1
2
8
shortest path
reverse

$$\begin{cases} T.C \rightarrow O(N+E) \\ S.C \rightarrow O(N+E) \end{cases}$$