

## Top-20 Training Program (Graph Problems-II)

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Apply the solution building strategies discussed in class to solve following problems.

### Group1: (Unweighted) Shortest Path problems

Shortest Path in Undirected Graph: <https://www.lintcode.com/problem/shortest-path-in-undirected-graph/description>

Knight Shortest Path: <https://leetcode.com/problems/minimum-knight-moves/>

Word Ladder: <https://leetcode.com/problems/word-ladder/>

Word Ladder-II: <https://leetcode.com/problems/word-ladder-ii/>

Minimum Genetic Mutation: <https://leetcode.com/problems/minimum-genetic-mutation/>

Shortest Path in Binary Matrix: <https://leetcode.com/problems/shortest-path-in-binary-matrix/>

Shortest Path with Alternating Colors: <https://leetcode.com/problems/shortest-path-with-alternating-colors/>

Shortest Path Visiting All Nodes: <https://leetcode.com/problems/shortest-path-visiting-all-nodes/>

Shortest Path by Eliminating Obstacles: <https://leetcode.com/problems/shortest-path-in-a-grid-with-obstacles-elimination/>

### Group2: (Weighted) Shortest Path/Flow problems

Network Delay Time: <https://leetcode.com/problems/network-delay-time/>

Minimum Risk Path: <https://www.lintcode.com/problem/minimum-risk-path/description>

Tourist Guide:

[https://onlinejudge.org/index.php?option=com\\_onlinejudge&Itemid=8&page=show\\_problem&problem=1040](https://onlinejudge.org/index.php?option=com_onlinejudge&Itemid=8&page=show_problem&problem=1040)

### Group3: Spanning Tree problems

Minimum Spanning Tree: <https://www.lintcode.com/problem/minimum-spanning-tree/>