



Practice questions: Dijkstra's Algorithm

Bookmark this page

Practice questions: Dijkstra's algorithm

3/3 points (ungraded)

1. When running Dijkstra's algorithm on a weighted graph from vertex u , what following condition is sufficient to guarantee that the Dijkstra's algorithm outputs are the shortest paths from vertex u to the accessible vertices of the graph?

☐ The input weighted graph is a tree.

☒ The input graph contains only nonnegative weights.

☐ The input graph is connected.



2. What following property best describes the functioning of Dijkstra's algorithm?

☒ We explore vertices by increasing the distance from u in the graph.

☐ We explore vertices by increasing the hops from u in the graph.

☐ We explore vertices as we would do for a BFS.



3. The Dijkstra's algorithm maintains two data structures along the process. What are they?

☐ The list of explored vertices and the list of explored edges.

☒ The list of explored vertices and an estimation of the distances from u to the other vertices of the graph.

☐ An estimation of the order of the graph and an estimation of the size of the graph.



Submit

ⓘ Answers are displayed within the problem



edX

[About](#)

[Affiliates](#)

[edX for Business](#)

[Open edX](#)

[Careers](#)

[News](#)

Legal

[Terms of Service & Honor Code](#)

[Privacy Policy](#)

[Accessibility Policy](#)

[Trademark Policy](#)

[Sitemap](#)

Connect

[Blog](#)

[Contact Us](#)

[Help Center](#)

[Media Kit](#)

[Donate](#)



© 2020 edX Inc. All rights reserved.

深圳市恒宇博科技有限公司 [粤ICP备17044299号-2](#)