

Shortest path assignment

June 10, 2024

1 Question 1

Since you have studied Dijkstra's algorithm, now its time to implement it. This task requires implementation of dijkstra's algo in $O(n \log n)$ time where n represents nodes of the graph. Alongside the implementation code, you are also required to submit report explaining your implementation (this is most important).

Hint:- try to study about priority queue

Bonus question:- Read how priority queue is implemented using heaps.

Try to solve following bonus question:-

[Problem on priority queue](#)

2 Question 2

Time for some standard problem:-

[CSES problem](#)

3 Question 3

A good application of dijkstra's algorithm:-

[Application problem](#)

The above problem is a somewhat tricky application of shortest path algorithm (atleast to me).