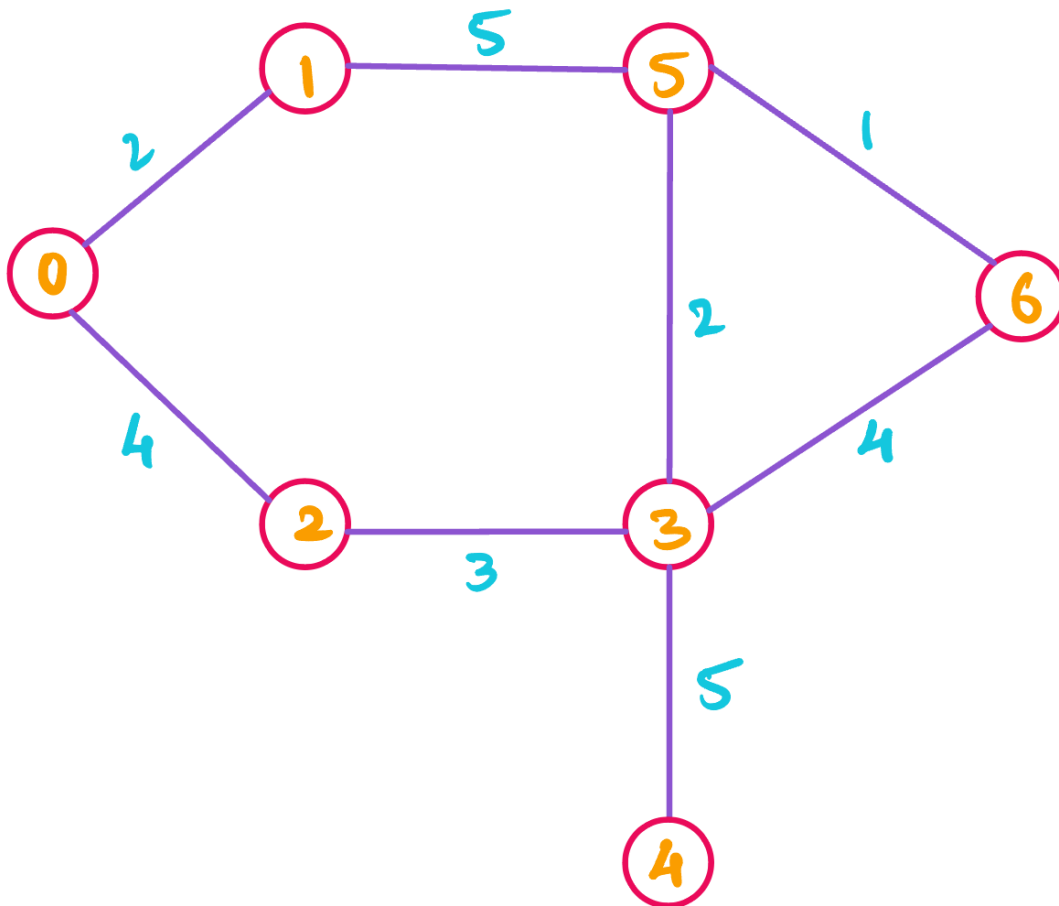# Assignment 2 : Question 1

Graph

The orange numbers in the pink circles represent various nodes.
The purple lines connecting them represent edges, and the blue numbers represent the edge weight.

Approach

- The graph is represented as an adjacency list storing pairs of (node, edge weight) for every connected node

Dijkstra's Algorithm
- A vector "dist" stored all the shortest distances to a node, these were initialised to infinity and updated while traversing.
- A priority queue was used to implement Dijkstra's algorithm. This helped efficiency as it allows for shorter distance nodes to be explored first. If a node has several paths, the shortest would be explored first.
- Finally, unreachable nodes remain at distance infinity.
- The function also prints the shortest distances obtained.