Write a C++ program that simulates a team hiking through a forest at night. The team encounters a series of narrow bridges along the way. At each bridge they may meet additional hikers who need their help to cross the bridge.

The narrow bridge can only hold two people at a time. They have one torch and because it's night, the torch has to be used when crossing the bridge. Each hiker can cross the bridge at different speeds. When two hikers cross the bridge together, they must move at the slower person's pace.

Determine the fastest time that the hikers can cross the each bridge and the total time for all crossings. The input to the program will be a yaml file that describes the speeds of each person, the bridges encountered, their length, and the additional hikers encountered along the way. Your solution should assume any number of people and bridges can be provided as inputs.

Demonstrate the operation of your program using the following inputs: the hikers cross 3 bridges, at the first bridge (100 ft long) 4 hikers cross (hiker A can cross at 100 ft/minute, B at 50 ft/minute, C at 20 ft/minute, and D at 10 ft/minute), at the second bridge (250 ft long) an additional hiker crosses with the team (E at 2.5 ft/minute), and finally at the last bridge (150 ft long) two hikers are encountered (F at 25 ft/minute and G at 15 ft/minute).

You will be judged on the following:

1. Strategy(s) - there are several ways to solve the problem, you can provide more than one. The goal is to show us how you think.

2. Architecture and design- we want to see how well you architect and design solutions to complex problems.

3. Testing - we want to see how you approach testing of the solution.

4. Standards and best practices.

5. Explanation - as a C++ thought leader in the organization you will be working with and mentoring other engineers. How well you can describe and explain your solution is very important.

Please provide a link to your github repo with your solution.